

# MIT COMMENCEMENT 20

# **MIT Commencement**

Honoring the graduates of 2024

Massachusetts
Institute of
Technology

Thursday, May 30, 2024



# WELCOME

The Class of 2024 will join a great, global family of nearly 147,000 MIT alumni. Connected by shared experiences, our community is knit together by fundamental values and ideals: Excellence and curiosity. Openness and integrity. Creativity and boldness. A passion for solving tough problems. And a collective drive to use our strengths wisely to serve humanity.

Our new graduates will help create the future of our society and our planet. But before they get started, we are delighted to join their families and friends in honoring their accomplishments at MIT.

Congratulations, Class of 2024!

Sally Kornbluth President

sally the

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Photos Above: Gretchen Ertl Cover: Jake Belcher Back cover: Dominick Reuter

# SCHOOL OF ARCHITECTURE AND PLANNING

**Bachelor of Science in Architecture** 

Course IV

Department of Architecture

Yihong Li

Also with a Major in Course XXI-L Minor in Management

Yanjun Liu

Also with a Major in Course II-A

Hailey R. Quinn

Minor in Environment and Sustainability

Max H. Reese

Daniel J. Volpe

Minor in Environment and Sustainability

Cindy J. Xie Minor in Biology Minor in Anthropology

**Bachelor of Science in Urban** Science and Planning with **Computer Science** 

Course XI-6

Department of Urban Studies and Planning in conjunction with the Schwarzman College of Computing

Kwesi Afrifa

**Kelly Fang** 

Kabir Mohan

Bachelor of Science in Art and **Design** 

Course IV-B Department of Architecture

Eva Bowman Smerekanych Also with a Major in Course VI-4 Minor in Mathematics

Diego Yañez-Laguna

**Bachelor of Science in Planning** 

Course XI

Department of Urban Studies and Planning

**Anushree Chaudhuri** 

Also with a Major in Course XIV-1 (February, 2024)

Nadine Renee Eichenlaub

Ellie Han

Amanda Yang Huang

Val H. Shum (September, 2023)

# **SCHOOL OF ENGINEERING**

Bachelor of Science in
Engineering as recommended
by the Department of Civil and
Environmental Engineering

Course 1-ENG
Department of Civil and
Environmental Engineering

**Mikayla JeanMarie Britsch** Minor in Spanish

**Lai Wa Chu** Also with a Major in Course XI

**Joy P. Domingo-Kameenui** Minor in Anthropology

Runako I. Gentles

**Grace Ann Harrington**Minor in Energy Studies
Minor in Women's and Gender Studies

**Karen Huijie Li** Minor in Mathematics (February, 2024)

**Katherine Grace Reisig** Also with a Major in Course XXI-M

Lily R. Smith (February, 2024)

Siddharth Sridhar

Bachelor of Science in Climate System Science and Engineering

Department of Civil and Environmental Engineering

**Derek M. Allmond II**Minor in Environment and Sustainability

Bachelor of Science in Mechanical Engineering

Course II
Department of Mechanical
Engineering

Shreya Agarwal

Anthony R. Altala

**Henry J. Asa** Also with a Major in Course VI-3

**Jane Bai** Minor in Economics

Cadence Wu-xiu Boronkay Minor in French

**Irma Ceco**Minor in History of Architecture, Art and Design

Luke A. Chapman

Paige E. Cooksey

Steven M. Davis

Tyler John Godfrey

Iesse Granados

**Yasin Y. Hamed**Minor in Computer Science

Penelope B. Herrero-Marques

Connor Owen Hickey

Julia Grace Howarth

**Mario Wageeh William Ibrahim** Minor in Computer Science

**Billal Iqbal** Also with a Major in Course VI-2 (February, 2024)

Haeri Kim

Josef X. Kirkman

**Liberty R. Ladd**Also with a Major in Course XVII (See also S.M., Course XVII)

Man Ching Lee

Sebastien G. Loko

Sharil Samsuddin Maredia

Randy Matthew McLaughlin

Joshua Allen Mitchell (September, 2023)

**James D. Morin** Minor in Computer Science

Mark A. Mosser

**Katia D. Pendowski** Minor in Music

Jonathan Sheehan Roach

Andre Rodriguez

Gillian J. Roeder

Dylan C. Ryan

Sarah A. Sams

Malia C. Smith

Ashley Su

Mannie Michael Tilo, Jr.

**Jessica J. Wang** Minor in Biomedical Engineering

Colin M. Weaver

Bachelor of Science in Mechanical and Ocean Engineering

Course II

Department of Mechanical Engineering

Isabel Katerina Alvarez

Joaquin A. Cruz

Also with a Major in Course XVIII

Leigh E. Hart-Kennedy Ita C. Futran Sebastian Monsalvo Ansel Joaquín Garcia-Langley Nickie Mpofu Bachelor of Science in Engineering as recommended Kaili Glasser William Kanayochukwu Okolo I by the Department of **Mechanical Engineering** Nicolas A. Gomez Gomez Lingyi Qiu Course II-A (February, 2024) Also with a Major in Course IV-B Department of Mechanical Engineering Savannah I. Gordon Vishakk Rajendran Minor in Political Science Ghassan A. Aljawi Valeria M. Gutierrez Minor in Music Hana Daisv Ro Also with a Major in Course XXI-M **Grace Rian Armstrong** Emma Rose Higgason Katherina Ann Sapozhnikov Ishita Bhimavarapu Minor in Economics **Christy Huynh** Grant M. Bordelon Alina Tran Sarmiento Hung Quoc Huynh Minor in Mathematics Minor in Environment and Sustainability Robert Wilson Brashear Minor in Computer Science Abigail Elizabeth Schipper Minor in Statistics and Data Science Elissa Charlotte Ito Minor in Biology Minor in Computer Science Katherine Elizabeth Brennan Nicholas J. Schultz Stephanie M. Khaguli (February, 2024) **Thomas Everett Brooks** Tara P. Sheehan Minor in Environment and Sustainability **Sydney Paige Kim** Faith Emily Bulan Satchel H. Sieniewicz Cameron Michelle Kokesh Max J. Burns (February, 2024) Minor in Environment and Sustainability Minor in Public Policy Audrey Y. Chen Rylie P. Spiegel (February, 2024) Minor in Finance Jessica T. Lam Erica Chen Helen Sun Bradyn T. Lenning Minor in Management Sophia Chen **Andrew Lin** Also with a Major in Course IV-B Winnie Szeto Fiona Lin Juliana A. Covarrubias Nikolaos Tsakiris Also with a Major in Course IV-B Connie Ly Amber C. Velez Minor in Energy Studies Christopher James de la Rosa Also with a Major in Course XXI Ashley F. Margetts Morgan Grace Everett Maxwell Z. Wang Minor in Spanish Erin Megan Menezes Brandon Abraham Lenworth Worrell Tamilore E. Fashae (February, 2024) Baran Q. Mensah Spencer D. Yandrofski Minor in Music Edward J. Finman **Lucy Young** Karl Frederick Carbone Meyer Zachary R. Francis

Arielle Klavdia Mobius

Also with a Major in Course VI-2

Livia S. Zhang

Bachelor of Science in Materials Science and Engineering

Course III

Department of Materials Science and Engineering

Louise Anderfaas

Maximilian Adriano Bolzan (February, 2024)

Ian S. Chen

Also with a Major in Course VI-14 Minor in Mathematics Minor in Polymers and Soft Matter

**Kimberley Cheng**Also with a Major in Course XVIII

Sravani R. Duggirala

Victoria Grace Ganeles

**Sierra R. Green**Also with a Major in Course XXI-M

**Darshdeep S. Grewal**Minor in Political Science

**Katherine Lei** Also with a Major in Course XXI-S

Lucas N. Marden

Kirmina M. Monir

Daniel L. Tong

**Daniela L. Vallejo** Minor in Mechanical Engineering

**Shu Yang Zhang** Also with a Major in Course XV-3

Bachelor of Science as recommended by the Department of Materials Science and Engineering

Course III-A
Department of Materials Science
and Engineering

Eva Talar Berberian

Also with a Major in Course VIII Minor in Music

Lauryn Denise Kortman

Catherine Rebecca Lizarde Also with a Major in Course XI

Marilyn R. Meyers Also with a Major in Course VI-2

Mallika Reddy Pajjuri (February, 2024)

**Branden N. Spitzer** Minor in Theater Arts (February, 2024)

Melissa Elizabeth Stok Also with a Major in Course VI-2 Minor in Design

**Linnaea D. Uliassi**Also with a Major in Course XXI-M

Michelle J. Zong Also with a Major in Course XVIII Minor in Computer Science

Bachelor of Science in Electrical Science and Engineering

Course VI-1
Department of Electrical
Engineering and Computer
Science in conjunction with the
Schwarzman College of Computing

Muhammad Salah Alnasser

Franck N. Belemkoabga

Lucas R. Caragiulo Minor in Physics

Sun Mee Choi Minor in Music

Eyan Douglas Kekoakūkahiokekai Forsythe Minor in Mathematics

Bianca M. Hanly

Khang D. Le Minor in Japanese

Tiffany Kaye Louie

Tanner J. Packham

Janette H. Park

**Austin Keane White** 

Elizaveta Yugov

Also with a Major in Course VIII Minor in Urban Studies and Planning

Bachelor of Science in Electrical
Engineering and Computer
Science

Course VI-2

Department of Electrical Engineering and Computer Science in conjunction with the Schwarzman College of Computing

Amanial H. Abraham

**Vaishnavi Lakshmi Addala** Also with a Major in Course XVIII

Masarah A. Ahmedhussain

**Tolulope O. Akinbo** Minor in Design

Marco A. Andrade

**Jacqueline Theodora Aslarus** Minor in Polymers and Soft Matter (February, 2024)

**Sebastian Bartlett Fernandez** (February, 2024)

Samuel G. Bruce

Richter MacDonald Brzeski

Eric Quang Bui

Adam M. Bundy

Stephen Joseph Campbell Ramírez

**Emma Catherine Chadwick** Natalie Huang **Kevin Meng** (See also M.Eng., Course VI-P) Edenna Huiyi Chen Khoa T. Huynh Minor in Writing William Augustus Mackenzie Menken Christine C. Imogu Zitong Chen Shanti Kaylene Mickens Minor in Economics (February, 2024) Paul M. Irvine Minor in Business Analytics Also with a Major in Course XIV-1 Kiersten D. Mitzel Seo Yeon Chung Minor in Theater Arts Kailas Bhattacharyya Kahler Also with a Major in Course XVIII Minor in Japanese Armando Moncada Diego A. Coello Stephen S. Kandeh Also with a Major in Course VIII Lucy Isabel Morgan Elmer A. Cruz Galvan (February, 2024) John J. Mose, Jr. Griffin J. Duffy Ezra H. Kang (February, 2024) Alyssa Nicole Keirn Moaaz Hasan Fayumy Waly-Meissa Ndiaye (February, 2024) Minor in Comparative Media Studies Joshua J. Feliciano Samuel Doron Wekstein Kravitz Thienan D. Nguyen Minor in Political Science Dewei Feng Also with a Major in Course XVIII William D. Nolan Minor in Statistics and Data Science Adrian Kuka Keilee Icsis Northcutt Corey J. Ferrier Ian Black Elk Lacy Minor in Literature Noah T. Fisher Brian Li Moruph Osuolale Also with a Major in Course II-A (February, 2024) Jenny Y. Li Edwin Otieno Ouko Minor in Economics Robert Jenzel Freeman Also with a Major in Course XXI-M Lydia J. Patterson Evelyn Ling Fu Ivy Liu Cole J. Paulin Saketh Gabbita Minor in Mechanical Engineering Also with a Major in Course XVIII Claudia F. Lozano Also with a Major in Course IX Janet Y. Qian Sebastian A. Garcia Also with a Major in Course XVIII (February, 2024) Minor in Mechanical Engineering Shruti Garg Claire Lu Also with a Major in Course IX Elizabeth Rabenold Annie I. N. Giroux Ashley Jiahui Luo Juan Augusto Rached Viso Minor in Mathematics (February, 2024) Cerine Hamida (February, 2024) Joseph Vincent Lupo III Anirudh Rahul Also with a Major in Course XVIII Harry Gregory Heiberger Anish Ravichandran Keawe W.A. Mann Henry Ralph Heiberger John Robert Readlinger Luis Alberto Martinez Alexis Yanyi Huang Minor in Literature Minor in Finance Mariana Reyes Holguín

Sean A. Rice

Julio A. Rodriguez

Also with a Major in Course VIII (February, 2024)

Dana Rubin

Ishika Shah

Minor in Mathematics

Abdurahman Sherif

Imanuella O. Shodipo

Also with a Major in Course IV-B

Nathan Andrew Shwatal

Minor in Mathematics Minor in Linguistics

Ragulan Sivakumar Minor in Mathematics

Alyssa Marie Solomon

Minor in Linguistics

Lili Elizabeth Sun

Minor in Mechanical Engineering

Christian H. Teshome

**Grady Michael Thomas** 

Sonia Uwase

Manuel Alejandro Valencia

Minor in Mechanical Engineering

Vedantha Ramanathan Venkatapathy

Kiran S. Vuksanaj

Haoran Wen

**Garrett Bradley Whitmore** 

Zoe Wong

Minor in Economics (February, 2024)

Bruke Assefa Wossenseged

Bowen Wu

Angelina Xu

Minor in Mathematics (See also M.Eng., Course VI-P)

Jessica Jia Xu

Ryan P. Yang

Isabella Yu

Also with a Major in Course XVIII Minor in Comparative Media Studies

Alicia Zang

Erin Wei Zhang

Minor in Literature

Bachelor of Science in Computer Science and

Engineering

Course VI-3

Department of Electrical Engineering and Computer Science in conjunction with the Schwarzman College of Computing

Mahdi Hassan Abdallah

Muhammad Abdullah

Also with a Major in Course XVIII

Ayyub Abdulrezak

Maya Vaishali Abiram

(February, 2024)

Adanna Chizaram Abraham-Igwe

Also with a Major in Course XXI-M (February, 2024)

George Abu Daoud

Minor in Statistics and Data Science

James Reed Adair

(February, 2024)

James K. Adams

(February, 2024)

File J. Aguilar Valencia

(February, 2024)

Khaleel Al-Adhami

Sebastian N. Alberdi

Also with a Major in Course VIII

Sagnik Anupam

Also with a Major in Course XVIII

Minor in Literature

Ethan T. Ardolino

Minor in Entrepreneurship & Innovation

Pranav Arunandhi

Also with a Major in Course XVI

Minor in Management (February, 2024)

Purvaja Balaji

Minor in Urban Studies and Planning

(February, 2024)

Eesha Banerjee

Also with a Major in Course VIII

Gildardo Banuelos

(February, 2024)

Claire X. Bao

(See also M.Eng., Course VI-P)

Maria Diane Batres Rodriguez

Daniel M. Benavides

**Amogh Bhatnagar** 

(February, 2024)

Monica M. Busza

Also with a Major in Course XV-1

Minor in Economics

Paterne Byiringiro

Joseph Paul Cahaly

Also with a Major in Course XVIII

Minor in Chinese

Jenny Cai

Minor in Economics (February, 2024)

Sabrina J. Cai

Quincy S. Cantu

Joseph Anthony Chandler

Minor in Mathematics

Anugrah George Chemparathy Isabella L. Do Orozco Aileen Han Also with a Major in Course XIV-2 Alice Chen Ioli Dou (See also M.Eng., Course VI-P) (February, 2024) Michael Jinghao Han An Bo Chen Nicholas L. Dow Yun Hao Minor in Mathematics Minor in Music Cecilia D. Chen Also with a Major in Course XVIII Karen Dreicer Liberman Shaherul Haque Also with a Major in Course XV-2 Also with a Major in Course XVIII Minor in Environment and Sustainability (February, 2024) Daniel Chen (February, 2024) Chukwuemekalum Kevin Echezona Katherine He Minor in Management Linda W. Chen Fahnmusa J. Edwards Michael Lowell Hensgen Vincent T. Chen Also with a Major in Course XVIII (February, 2024) Thomas Bro Falkenberg (February, 2024) Rohan Cherukuri Ionathan Y. Fei Stephen S. Hong Also with a Major in Course XVIII Also with a Major in Course XVIII Tinah L. Hong Thanadol Chomphoochan Eugenia Yulan Feng (February, 2024) Minor in Management **Promia Chowdhury** Amelia Y. Hu Minor in Mathematics Daniel S. Fleming Also with a Major in Course XVIII (See also M.Eng., Course VI-P) Raunak Chowdhury Jonatan Enrique Fontánez Minor in Mathematics Helen Hu Minor in Philosophy Elie E. Cuevas Minor in Urban Studies and Planning Minor in Management Minor in Mathematics **Emily Gan** Also with a Major in Course XVIII Tony A. Cui Dana Hua Minor in Statistics and Data Science Caroline K. Cunningham **Andrew Huang** Raz Gaon Also with a Major in Course XVIII Omar Dahleh Ian James Frigillana Gatlin Grace Feiyan Huang (See also M.Eng., Course VI-P) Huy Chi Dai Tom M. George

**Timmy Ton Dang** Samay Godika (February, 2024) Jason Kofi Nii Daniels

Ashley M. Granquist Diego Delarue Minor in Music Also with a Major in Course XXI-L (See also M.Eng., Course VI-P) Leon Y. Deng Shreya Gupta Also with a Major in Course XVIII

(February, 2024) MingYang Deng Michael D. Hadjiivanov Also with a Major in Course XVIII

Also with a Major in Course XVIII Minor in Statistics and Data Science Kaleb A. Desta

Irene Yu-Lin Huang Minor in Mathematics (See also M.Eng., Course VI-P) Peihua Huang Minor in Mathematics Minor in Chinese Roderick Wei Xiao Huang Also with a Major in Course XVIII **Sheng Huang** Paul U. Ihim Minor in Mathematics

Elisa T. Jacobo-Arill Minor in Mathematics

**Ananya Jain**Minor in Mathematics

Lily T. Janjigian

Nader Jemel

Emily Jiang Minor in Mathematics (See also M.Eng., Course VI-P)

**Gabriel Jimenez** (See also M.Eng., Course VI-P)

Jack Jin Minor in Statistics and Data Science

Pasit Jindanuwat Minor in Economics Minor in Mathematics

Jayden R. Johnson

John M. Jones

Emma Yejoo Jung

Nikhil V. Kakarla

Hermon Y. Kaysha

**Amirabbas Kazeminia**Also with a Major in Course XVIII

Nicole Khaimov (February, 2024)

Johan Kiilavirta

**Dong Young Kim** Minor in Finance

Hannah Kim

Joseph Young Kim

**Song Eun Kim** Minor in Mathematics

Cameron Matthew Kleiman Minor in Urban Studies and Planning (February, 2024) Blisse X. Kong

Demetrios C. Kriezis

Nitin Anand Kumar

Also with a Major in Course XVIII Minor in Physics Minor in Economics

(See also M.Eng., Course VI-P)

**Pierce W. Lai**Minor in Mathematics

Eric Lam

Also with a Major in Course XVIII Minor in Physics

Jordan Lam

Matthew J. Landis Also with a Major in Course XXIV-1

Chloe Ann Langley

**Divij Lankalapalli** Also with a Major in Course XVIII

(February, 2024)

Jimin Lee

Jiwon Lee

Minor in Economics

Ju Young Lee

Si Liang Lei

Sanchayapol Lewgasamsarn

Amy Li

Also with a Major in Course XXIV-2

Minor in Mathematics

Eileen O. Li

Minor in Mathematics

Haoxuan Li

Jason Li

Minor in Mathematics

Jerry Y. Li

(See also M.Eng., Course VI-P)

Jonathan Li

Also with a Major in Course XVIII

Michelle Z. Li

Also with a Major in Course XVIII

(February, 2024)

Philip W. Li

**Derrick Liang** Minor in Music

Jackie Lin

Melanie Lin

Vincent Lin Minor in Music

William Lin

**Sebastian Navarre Lindley** Minor in Japanese

viinor in Japanese

Andi Liu

**Brent Liu** 

Emily Z. Liu

Also with a Major in Course XVIII

Philena J. Liu Minor in Mathematics (February, 2024)

Shiyu Liu (February, 2024)

William Hanbo Liu

Minor in Ancient and Medieval Studies

Sophia Elizabeth Lockton

**Rawisara Lohanimit** Minor in Japanese

**Sadhana Santoshi Lolla** Minor in Mathematics Minor in Literature

Catherine Z. Lu Minor in Chinese

Emily Lu (February, 2024) Yaroslav Luchko Tobe M. Obochi **Brendon Reperttang** Minor in Economics (February, 2024) Jacky Luong Troy P. Oliveira Shreya Vipul Reshamwala Also with a Major in Course XVIII Lennie H. Ma Minor in German Piero Fabrizzio Orderique Minor in Management Ningshan Ma (February, 2024) Sophie Revnolds Minor in Business Analytics Joshua G. Mbogo Sameer Pai (February, 2024) Christopher E. Rinard Matthew McManus (February, 2024) (February, 2024) Oomi Pammit (February, 2024) Rachel Victoria Robinson Josiah J. McMenamy Jessica N. Pan Diego Vincent Rodriguez Jamison Chivvis Meindl Minor in Biology Minor in Statistics and Data Science Also with a Major in Course XVIII Minor in Design **Evan Samuel Rubel** Helena Athena Zouras Merker Radha R. Patel (See also M.Eng., Course VI-P) Ricardo Ruiz Andrew B. Miller Anton W. Peraire-Bueno Mohamed Samb (February, 2024) Shayda Moezzi Sumiyajav Sarangerel Vlada Petrusenko Asaad H. Mohammedsaleh (February, 2024) Binh C. Pham Shree N. Mohan Derek J. Schaadt Minor in Mathematics Hassan Mohiuddin Daniel Milo Schafer Alexis Ponce Castillo Also with a Major in Course XV-1 Minor in Mathematics (February, 2024) Ashneal S. Powell Shawn A. Monel (February, 2024) Azariah G. Seblu Helen O. Propson (See also M.Eng., Course VI-P) Jenny Uris Moralejo Evan A. Seeyave Also with a Major in Course XIV-2 Grace X. Pu Maggie Michele Sengenberger Minor in Political Science Noah M. Morales Swathi Senthil Sabrina I. Queipo Siddharth C. Muppalla Andres E. Sevilla Muhender Raj Rajvee Abutalib Namazov Minor in Mathematics Minor in Mathematics Silu Shen Minor in Music Also with a Major in Course XXI-M Ngoc B. Nguyen Minor in Mathematics Esha V. Ranade (September, 2023) Minor in Mathematics **Javier Solis** Shayla Thy Nguyen Minor in Political Science Steven N. Raphael Minor in Brain and Cognitive Sciences Feina Niu Minor in Mathematics Grace Young-Eun Song Also with a Major in Course XVIII Minor in Mathematics (February, 2024) (February, 2024) Chaitanya Ravuri

Teodora Stan

Zipei Tan

Also with a Major in Course XVIII (See also M.Eng., Course VI-P)

Pakaphol Thadawasin

Minor in Mathematics

Nandini Thakur

Vittal Thirumalai

Pratistha Timilsina

Minor in Earth, Atmospheric, and Planetary Sciences

Jorge Adrian Tomaylla Eme

Eeshan Tripathii

Also with a Major in Course XV-1 (February, 2024)

Nicholas Tsao

Also with a Major in Course XVIII

Christine W. Tu Minor in Mathematics

Saul A. Vega Sauceda

Evan H. Vogelbaum (February, 2024)

Yoshia J. Wagenmans

Luke Anthony Wagner

Alex Wang (February, 2024)

Andy Wang (February, 2024)

Annie Wang

Minor in Mathematics (See also M.Eng., Course VI-P)

**Christopher Wang** 

Minor in Biomedical Engineering

Daniel J. Wang

**Eric Wang** 

Helen K. Wang

Also with a Major in Course XVII

Sarah Y. Wang

Yifan Wang

Collin A. Wen

Cameron Eric White

Charles J. Williams

Kyoungwan Woo

Jessica L. Wu

Julia Xia

Audrey Huayan Xie

Also with a Major in Course XVIII

Albert B. Xing

James A. Xiu

Also with a Major in Course XVIII

Kelly R. Xu

Minor in Economics

Muhua Xu

Also with a Major in Course XVIII (See also M.Eng., Course VI-P)

Ronald Bohan Xu

William Xu

Binwei Yan

Also with a Major in Course XVIII

Minor in Economics

(See also M.Eng., Course VI-P)

**Helen Yang** 

(See also M.Eng., Course VI-P)

Jesse S. Yang

Also with a Major in Course XVIII

Peiyu Yang

Also with a Major in Course XVIII

Ryan Yang

Brianna S. Yao

Tong Ye

Chanwoo Yoon

Minor in Mathematics

Joyce E. Yoon

Minor in Mechanical Engineering

(February, 2024)

Joyce Yuan

Also with a Major in Course XVIII

Hilary W. Zen

Jackson Zhang

Sarah Jingxue Zhang

Also with a Major in Course XVIII

Selena Zhang

Sophie Shiqing Zhang

Minor in Mathematics

Wesley Zhang

Also with a Major in Course XXIV-2

Minor in Mathematics

Zachary Tangbei Zhang

Minor in Mathematics

Katherine Zhao

Also with a Major in Course XVIII (See also M.Eng., Course VI-P)

Sarah Ann Zhao

Also with a Major in Course XVIII

Amanda Yi Zheng

Minor in Mathematics

Joey Zheng

Minor in Mathematics

Sophia Jiaxin Zheng

Minor in Urban Studies and Planning

Vicky Zheng

Yuxuan Zheng

Also with a Major in Course XVIII

Minor in Chemistry

Ziqian Zhong

Also with a Major in Course XVIII

Minor in Music

Irina Zoccolini-Ferreyra

Also with a Major in Course XIV-2

**Bachelor of Science in Artificial Intelligence and Decision Making** 

Course VI-4

Department of Electrical Engineering and Computer Science in conjunction with the Schwarzman College of Computing

Raza Syed Abbas

Penny E. Brant

Also with a Major in Course VIII Minor in Mathematics

**James Camacho** 

Sauhaarda Chowdhuri (February, 2024)

Ethan L. Chun Minor in Mathematics

**Jesse Everett Cummings** (See also M.Eng., Course VI-P)

Gyalpo Melchisedeck Dongo Aguirre

Kaivalya Hariharan

Also with a Major in Course XVIII

Brady M. Klein

David Aaron Houdek Koplow Also with a Major in Course IX (February, 2024)

**Kairo Tiere Morton** 

Linh Khanh Nguyen

Also with a Major in Course VIII

**Tuong Thien Phung** 

**Gregory Pylypovych** 

Also with a Major in Course XVIII

Vayd Sai Ramkumar

Also with a Major in Course XVIII

Isabella Marguerite Struckman

John J. Yang

Also with a Major in Course XVIII

Minor in Mathematics

**Bochuan Zhang** 

Bachelor of Science in Computer Science and Molecular Biology

Course VI-7

Department of Electrical Engineering and Computer Science in conjunction with the Schwarzman College of Computing

Savannah Jae Ashley

Ochiba Marie Oghenemudiakev Attah (See also M.Eng., Course VI-7)

Stanley Chen Minor in Finance

Tina T. Chen

Minor in Asian and Asian Diaspora

Keanu A. Clark

Aidan A. Cordero

Sydney A. Dell Minor in Public Policy

Lilly Kathryn Edwards

Aria Rosalee Eppinger

Leon Fan

Angela Gao

Zoe Anne Gotthold

Madeline Hon

Anna Kwon

Victoria Inibiokun Oluwatobiloba

Longe

Minor in Theater Arts (See also M.Eng., Course VI-7)

Melissa F. Nie

Delight Oluwalonimi Chidima Nwene-

Minor in Environment and Sustainability (February, 2024)

Nithin Parsan (February, 2024)

Charvi D. Sharma Minor in Theater Arts

Grace Karen Sun

Erin M. Thompson

Minor in Environment and Sustainability

**Brandon Wang** Minor in Mathematics

Jared Zheng

Bachelor of Science in

Computer Science, Economics, and Data Science

Course VI-14

Department of Electrical Engineering and Computer Science in conjunction with the Schwarzman College of Computing

Joy Sera Bhattacharya Minor in Business Analytics

Noah A. Bryce (February, 2024)

**David Jeffrey Chen** Minor in Mathematics

Tammy Chen

Angelica April Chin

Also with a Major in Course XV-2

Minor in Music

Dionne-Marie N. Daku-Mante

Minor in Theater Arts

Jamil Alejandro Dellawar

Also with a Major in Course XV-2

Dylan R. Dong

Eric J. Gan

Jia-en J. Hu

Minor in Mathematics

Rahul Kaukuntla

(February, 2024)

Leila Rania Khan

Katherine Elizabeth Kostecki

Also with a Major in Course XV-2

Angela Li

Also with a Major in Course XV-2

Joseph Z. Li

Also with a Major in Course XV-2

Maria Li

Kaitlin Y. Lim

Brian H. Liu

Also with a Major in Course XVIII

Eileen Angela Liu

Also with a Major in Course XVIII Minor in Business Analytics

Minor in Chinese

Joshua Shay Masuda

Also with a Major in Course XV-2 Minor in Mathematics

Raj A. Mehta

Also with a Major in Course XV-2

Srinidhi Narayanan

Also with a Major in Course XVIII

Erika Pilpre

Francisco Rafael Proskauer Valerio

Sebastian Miguel Quintero

Jackson H. Roberson

Also with a Major in Course XV-2

Vivian Keyi Shao

Also with a Major in Course XV-3

Zhurui Sheng

Also with a Major in Course XVIII

James B. Simon

Also with a Major in Course XV-2

Rorie A. Simpson

Wenjin Sun

Minor in Business Analytics

Sanprem Taechawichian

Minor in Finance

Loic H. Venon

Also with a Major in Course XV-3

Vanessa R. Vidic

Minor in Writing

Karen Ruiyi Wang

Melody L. Wen

Minor in Mathematics

Samantha Ying

Also with a Major in Course XV-2

(February, 2024)

Alice Yu

Also with a Major in Course XV-2

**Ruiying Zheng** 

Also with a Major in Course XV-2

Bachelor of Science in Chemical Engineering

Course X

Department of Chemical

Engineering

Rachel Ahlmark

Minor in Economics

Minor in Energy Studies

Andrea Aude

Minor in Energy Studies

Kathleen Rose Bailey

Minor in Energy Studies

Tamara Bristol Brabson

(February, 2024)

Tamea Malana Cobb

Also with a Major in Course XXI-L

Caleb B. Cowger

Jason Alejandro Garcia

Minor in Energy Studies

Andre Farai Hamelberg

Also with a Major in Course XVIII

Phoebe S. Hartch

Maggie Liu

Priya Amanda Moncrieffe

Gabrielle Leigh Moore

Timothy Nguyen

Fiona M. Shortt

Minor in Management

**Anaisa Nicole Sibel**Minor in Energy Studies

Steven C. VanPelt

Ava Elizabeth Vargas

Yi Jun Yang

Minor in French

Audrey Hiu-Lui Yip

Minor in Spanish

Yan Zheng

Bachelor of Science in Chemical-Biological

Engineering

Course X-B

Department of Chemical

Engineering

Kelcey Alia Allen

Also with a Major in Course VII

Makena Armstrong

Minor in Biology

Yunbeen Bae

Also with a Major in Course VII

Eliza Jane Bazakas

Minor in Computer Science

Lynette Xin Chan

Also with a Major in Course VII

**Austin Chin** 

Fiona Duong

Also with a Major in Course VII

Ezra Z. R. Gordon

Kyle A. Hare

Also with a Major in Course VII

Dien Le Hai Nguyen

Also with a Major in Course VII

Khiem Huu Nguyen

Also with a Major in Course VI-3

**Sydney An Pham** 

Minor in Biology

Josephine L. Ramirez

Also with a Major in Course VII

Alfonso D. Restrepo

Also with a Major in Course VII

Also with a Major in Course VI-7

Alexander F. Seguin

(February, 2024)

**Jack Rankin Suggs** 

Also with a Major in Course VII Minor in Chemistry

Minor in Economics

Bachelor of Science as recommended by the **Department of Chemical Engineering** 

Course X-C

Department of Chemical

Engineering

Helen Chen

Also with a Major in Course VI-3

Bachelor of Science in Engineering as recommended by the Department of Chemical **Engineering** 

Course X-ENG

Department of Chemical

Engineering

Alexander R. Freedline

Michael Kojo Hanson

**Kezia Elaine Hector** 

Joshua Curtis N. Kuffour

Also with a Major in Course XVIII Minor in Energy Studies

Nnedimma Okoye

Charles Kit Phu Minor in Chemistry

Minor in Energy Studies

Sebastian Rotella

Also with a Major in Course VIII

Minor in Energy Studies

Soo Yeon Ryu

Annlin Su

Minor in Physics

Pris Wasuwanich

Tatum Grace Wilhelm

Minor in Anthropology

Bachelor of Science in **Aerospace Engineering** 

Course XVI

Department of Aeronautics and

Astronautics

Melissa Marie Bauer

Micah Melanio Borrero

Minor in Political Science

Madison M. Bronnimann

Minor in Japanese (February, 2024)

Dankwa Buckle

Wing Lam Chan

Minor in Computer Science

Yatin J. Chandar

(February, 2024)

Fritzgerald Duvigneaud

Also with a Major in Course VI-2

Matthew W. Elliott

Minor in Management

Minor in Management

Michael R. Finch

Minor in Computer Science

Mary Grace Foxen

Luis Alonso Garcia

Minor in Finance

Dane M. Gleason

Erick Gonzalez

Minor in French

**Timothy John Grazier** 

Minor in Finance

Daniel J. Gurga III

Minor in Computer Science

**Adrian Omar Gutierrez** 

Minor in Computer Science

Claire N. Johnson

Also with a Major in Course VIII

Minor in French

Phillip A. Johnson III

Connor G. Kaminska (February, 2024)

Michael Richard Kraus Minor in Computer Science

Alazar Lemma

Ryan N. Lemone

Alan Lomba

Remeyn S. Mechura Minor in Chinese

Joseph Alexander Merkel (September, 2023)

Caden Allan Moore Minor in Music

**Christina Nguyen** Minor in Theater Arts

Heath G. Nilsen

Miles Alexander Oglesby Minor in Urban Studies and Planning

Cecilia Pérez Gago Minor in French

John Jairo Posada

Oliver E. Rayner

Benjamin R. Rich

Also with a Major in Course VI-4

**Garrett Immanuel Robinson** 

**Dinuri Senara Bandara Rupasinghe** Minor in Computer Science

Vanessa J. Sanchez Guiza

Morgan E. Schaefer Minor in Music

Cruz S. Soto

Also with a Major in Course VIII

Jose Soto

Ethan M. Stewart

Also with a Major in Course XV-1

**Grant Edward Thomas** 

Minor in Music

Robin Mia Tian

Minor in Computer Science

Carlos A. Trivino

Sophia J. Wang

Joseph R. Ward

Also with a Major in Course XVII

(February, 2024)

Joshua W. Wornell

**Spencer R. Yoder** Minor in Economics

Bachelor of Science in
Engineering as recommended
by the Department of
Aeronautics and Astronautics

Course XVI-ENG

Department of Aeronautics and Astronautics

Isaac James Broussard

Also with a Major in Course VIII

Nicholas J. Ciepley (September, 2023)

Hillel Dei

Also with a Major in Course XVIII

Minor in Economics

Ahmed Tijan Diongue

Isabella I. Golemme

Xav Harrigin-Ramoutar

Michelle J. Luo

Also with a Major in Comparative Media Studies

(February, 2024)

Nicole McGaa

Bachelor of Science in Biological Engineering

Course XX

Department of Biological

Engineering

Viktor Baltin

Also with a Major in Course VI-9

**Lindsay A. Bolino** Minor in Spanish

Joshua M. Callaway

Kam Yan Cheung

Yeji Cho

Minor in Earth, Atmospheric, and Plane-

tary Sciences

Mitali Chowdhury

Minor in Urban Studies and Planning

Minor in Environment and Sustainability

Mahaam M. Desai

Hannah R. Donner

Abigail E. Dzordzorme

Also with a Major in Sci., Tech., & Society

Ellie Feng

Zoe Natalia Garcia Baumbeck

Minor in Management Minor in Management

Isobe M. Garrett

Omkar P. Ghenand

Minor in Computer Science

Marie Alice Claire Goemans

Nicole Elizabeth Harris

Minor in Spanish

Michelle Angelica Hsu

(February, 2024)

**Shannon Kang** 

Minor in Computer Science

Katherine A. Kitzinger

Minor in Mechanical Engineering

Ria Kolli

Arbri Kopliku

Minor in Computer Science Minor in Science, Technology, and Society

Demi J. Laforest

Allison Lam

Also with a Major in Course VI-1

Erika L. Leasher

Also with a Major in Course IX

Kimberly Liao

Jingting Lin

Sabrina Chen Liu

Abigail Lo

Minor in Computer Science

Amanda Wang Mei

Minor in Computer Science

Sabrina Pingzhu Meng

Also with a Major in Course VI-2 Minor in Music

Sara A. Modiano

Natalie A. O'Hearn

Favour Ayomide Oladimeji

Minor in Chemistry

Sruthi Parthasarathi

Also with a Major in Course VI-2 Minor in Mathematics Minor in Music Technology

Zoe J. Pasetsky

Anusha Puri Minor in Biology

Alesandra Loren Pusey

Minor in Environment and Sustainability

Shriya M. Rangaswamy

Minor in Mathematics

Kayla Suarez

Sarah Sajila Syed

Also with a Major in Course XV-1 Minor in Biology

Ella Susanne Trumper

(February, 2024)

Vivian T. Vu

Minor in Computer Science

Daisy Wang

Minor in Women's and Gender Studies

Isabella H. Witham

Bryan M. Wong

Victoria Yang

Minor in Computer Science

Gianfranco L. Yee

Minor in Biology

Lucy Zhao

Jessica A. Zylstra

Bachelor of Science in Nuclear Science and Engineering

Course XXII

Department of Nuclear Science and Engineering

Emilio Ahuactzin-Garcia

Also with a Major in Course VIII

Bethany A. Belleque

(September, 2023)

Aidan M. Hallinan

Minor in Economics

**Armando Angel Martinez** 

Also with a Major in Course VIII

Lucy M. Nester

Minor in Energy Studies

Bachelor of Science in Engineering as recommended by the Department of Nuclear Science and Engineering

Course XXII-ENG

Department of Nuclear Science and Engineering

Carmen Maria Avila Padilla

Mriganka Mandal

Also with a Major in Course VII

Jordan J. Parker-Ashe

Brianna Noelani Ryan

Also with a Major in Course VIII Minor in Astronomy (See also S.M., Course XXII)

# SCHOOL OF HUMANITIES, ARTS, AND SOCIAL SCIENCES

Bachelor of Science in

**Economics** 

Course XIV-1

Department of Economics

Santiago A. Cantu

Lukas J. Hanson-Puffer

Also with a Major in Course XV-1 Minor in Environment and Sustainability

Bachelor of Science in **Mathematical Economics** 

Course XIV-2

Department of Economics

Tammy C. Le

Joshua N. Nwakoby

**Quentin Ansley Smith** Minor in Theater Arts

Stacy S. Wang

Also with a Major in Course VI-4

**Bachelor of Science in Political** Science

Course XVII

Department of Political Science

Luka Bulić Bračulj

Also with a Major in Course XVIII Minor in Statistics and Data Science

Diana Carol Degnan

Also with a Major in Course XIV-1 (February, 2024)

Leela Fredlund

Also with a Major in Course VIII

David A. Spicer

Minor in American Studies (September, 2023)

**Bachelor of Science in Writing** 

Course XXI-W

Program in Writing and Humanistic Studies

Malhaar Agrawal

Celina Tang Zhao

Minor in Biology

**Bachelor of Science in Humanities and Engineering** 

Course XXI-E

Department of Humanities

Andrew R. Berta

Gisella Kemilembe Kakoti

(February, 2024)

Frank Y. Liu (February, 2024)

Grace A. McMillan

Jaime Villarreal

Bachelor of Science in **Humanities and Science** 

Course XXI-S

Department of Humanities

Bryan N. Burgos (February, 2024)

Bachelor of Science in Philosophy

Course XXIV-1

Department of Linguistics and

Philosophy

Qingfeng Li

Michael Andrew Sheldon

# SLOAN SCHOOL OF MANAGEMENT

**Bachelor of Science in** 

**Management** 

Course XV-1

Sloan School of Management

Alicia Yangda Caichen

Minor in Applied International Studies

**Austin James Cox** 

(February, 2024)

Colin L. Klick

Minor in Statistics and Data Science

Megan Ashlee Lim

**Emily Yongxin Shi** 

Minor in Computer Science

(February, 2024)

Brian Michael Wilson, Jr.

**Bachelor of Science in Business Analytics** 

Course XV-2

Sloan School of Management

Ryan G. Armstrong

Minor in Economics

Gabriel Arruda

Also with a Major in Course VI-14

(February, 2024)

**Cher Jiang** 

Jessica Jimenez

Dejon Kurti

Also with a Major in Course VI-14

Tyler Abdul-Tariq Lawal

Doreen T. Rota

Sari E. Strizik

Also with a Major in Course VI-14

Aaron Yuxin Zhu

Also with a Major in Course VI-2

**Bachelor of Science in Finance** 

Joshua A. Sweet

Course XV-3

Sloan School of Management

Pamela Dzifa Cudjoe Abede

Minor in Computer Science

Braden J. Barlow

Jonathan S. Berger

Also with a Major in Course VI-14

Elizabeth Bitman

Also with a Major in Course XVIII

(February, 2024)

Christopher L. Carratu

Also with a Major in Course VI-14

Marco Giacomo Cesaratto

Minor in Mathematics

Julia Mingfei Chen

Also with a Major in Course VI-14

Peter Frederick DeTolla

Nora Grace Donnelly

Also with a Major in Course XVIII

Richard Guang

Minor in Statistics and Data Science

(February, 2024)

**Bryce David Hancock** 

Also with a Major in Course XVIII

Michael B. Holcomb

Jessica C. Jin

**Kelly Frances Lahart** 

Andrew C. Merrell

**Evelyn Grace Peters** 

Matthew A. Sardis

Angela Jingyi Su

Also with a Major in Course VI-14

# **SCHOOL OF SCIENCE**

Bachelor of Science in Chemistry

Course V

Department of Chemistry

Ali Mohammed A Alasmari

Mohammed H. AlKhurisi

Minor in Design

Shicheng Hu

Ygor Moura

Myles I. Noel

Minor in African and African Diaspora Studies

Angelica D. Phan

Also with a Major in Course XXI-H

Karla A. Ravin

Bachelor of Science in Chemistry and Biology

Course V-7

Department of Chemistry

**Peyton Trinity Acoff** 

Katherine Elizabeth Bell

Heng-Jui Chang

Minor in Biomedical Engineering

Katherine R. Duan

Ana Florescu-Ciobotaru

Also with a Major in Course X-B

Flora W. Fu

Isabela Maria Fuentes

Minor in Science, Technology, and Society

Mudita Goyal

Also with a Major in Course XX Minor in Economics Henry J. Hardart

Minor in Brain and Cognitive Sciences

Katherine E. Heslip

Christina Eunji Kim

Jaden Joshua Luo

Also with a Major in Course VIII Minor in Computer Science

**Jessica L. Mann** Minor in Music

Emma D. Martin

Oswaldo A. Martinez

Ananthan Sadagopan

**Achilleus H. Savvidis** Also with a Major in Course VIII

Daniel Sharygin

Cholapat Varongchayakul

Also with a Major in Course X-B

**Bachelor of Science in Biology** 

Course VII

Department of Biology

Andrea Onyinyechi Akwiwu

Luke Gustav Anderson

Also with a Major in Course XV-3

Meredith Elise Arterburn

Minor in Finance

William J. Bleyenberg III

Balyn G. Brotheridge

Isabella S. Carlo

Also with a Major in Course IX Minor in Ancient and Medieval Studies

Sundeep Chakladar

Minor in Science, Technology, and Society

Caitlin N. Doyle Minor in Linguistics

Victoria Dzieciol

Katherine I. Hobgood

Sruthi Kalavacherla

Minor in Women's and Gender Studies (February, 2024)

**Evan Alexander Kowal** 

Minor in History

Savannah M. Lawrence

Minor in Women's and Gender Studies

Hanjun Lee

Makenzie Love

(February, 2024)

Anna V. Plank

Also with a Major in Course VI-9 Minor in Biomedical Engineering

Brindha Priya Rathinasabapathi

Minor in Music

Amari Rebolledo-Ledesma

Phoenix M.B. Swartz

Estin Kairos Van Alstine

Minor in Theater Arts

Melody Yu

Also with a Major in Course IX

Minor in Music

Caroline S. Zhang

Minor in Brain and Cognitive Sciences

Rebecca S. Zhang

Minor in Chemistry

**Bachelor of Science in Physics** 

Course VIII

Department of Physics

Omar Abdelghani

Also with a Major in Course XVIII

Joseph A. Alongi

Minor in Mathematics Minor in Computer Science

Athira Arayath

Also with a Major in Course XVIII

Michael V. Bhopaul

Minor in Mathematics

**Berkin Binbas** 

Also with a Major in Course VI-3

Allison N. Brattley

Also with a Major in Course IX

Sean Chen

Also with a Major in Course VI-3

April Q. Cheng

Minor in Mathematics

Seoveon Choi

Also with a Major in Course VII Minor in Mathematics (February, 2024)

Jade Chongsathapornpong

Jessica Zhang Cohen

Minor in Energy Studies

Abigail M. Colclasure

Also with a Major in Course XII

Hannah Nahid Didehbani

Stephan R. Ducrepin

Minor in Computer Science

Owen M. Dugan

**Chirag Falor** 

Also with a Major in Course VI-4 Minor in Mathematics

Ianá Y.R. Ferguson

Minor in Earth, Atmospheric, and Planetary Sciences Minor in French

Xinyi Fu

Gosha Geogdzhayev

Minor in Mathematics Minor in Computer Science Natalia Goroncy

Minor in Science, Technology, and Society

Subhash C. Kantamneni

Also with a Major in Course VI-2

William Fan Li

Also with a Major in Course VI-3 Minor in Biology

Sebastien Luc Olivier G. Lohier

Also with a Major in Course VI-2

Juan Antonio Luera

Also with a Major in Course VI-2 Minor in Chinese

Joseph Alan McCarty

Also with a Major in Course XVIII

Ryan P. McTigue

Also with a Major in Course XVIII

Obinna Patrick Modilim

Erick Padilla

Also with a Major in Course XVIII

Panupong Phoompuang

Also with a Major in Course VI-14 Minor in Mathematics Minor in Astronomy

Albert W. Qin

Also with a Major in Course XVIII

Dylan J. Raphael

Also with a Major in Course XVIII

Maya Sachiko Redden

Cory James Romanov

Isabelle Ambre Jeanne Rose

Olivia T. Rosenstein

Minor in French

Ellison Julie Scheuller

Also with a Major in Course XVIII

Nathan J. Sesti

Minor in Computer Science

Jordan W. Sprague

Nicolas Ken Kahiau Tanaka

Also with a Major in Course VI-1

Melbourne Tang

Minor in Biology Minor in Music

Max I. Tao

Also with a Major in Course VI-2 Minor in Mathematics

Tung X. Tran

Also with a Major in Course XVIII-C

Aidan K. Van Duzer

Also with a Major in Course XXI-G

Chris Viets

Also with a Major in Course VII

Utheri Mureria Wagura

(September, 2023)

Jessica Wang

Also with a Major in Course VI-1 Minor in Mathematics

Charlotte I. Wickert Also with a Major in Course XXII-ENG

Minor in Music

(See also S.M., Course XXII)

Warit Wijitworasart

Minor in Astronomy

Clara Y. Xu

Also with a Major in Course XXI-S

Bachelor of Science in Brain and **Cognitive Sciences** 

Course IX

Department of Brain and Cognitive Sciences

Ines Escobedo

Vivian Beatriz Garcia Fonseca

Minor in Anthropology

María Guadalupe García-García

Melody Hanyun Guo

Minor in Biology

Jessica SE Han

Jason Ohiowa Li

Also with a Major in Course VI-4

Emmi L. Mills

Minor in Spanish

Benjamin A. Rothaus Barrera

**Bachelor of Science in Computation and Cognition** 

Course VI-9

Department of Brain and Cognitive Sciences in conjunction with the Schwarzman College of Computing

Ronald Alvarez

Nabil V. Baugher

Ashley Marie Benallo

Jessica Buerkour Boye-Doe

Jasmine J. Chen Minor in Design

Sydney S. Chun

**Audrey Yining Cui** 

Ariadne Maria Dulchinos Marini

Abigail S. Dulski

Megan Marie Eberts

Cynthia X. Fang

**Robert Preston Hess** Minor in Design

Ritika Jeloka (February, 2024)

Andrew W. Jenkins

(See also M.Eng., Course VI-9)

**Carol Jiang** 

Also with a Major in Course XXI-M Minor in Mathematics

Elaine Jutamulia

Minor in Music Technology

Gloria H. Kang

Minor in Biomedical Engineering

Inori Kawauchiya

Ariba Khan

Abigail Leah Klein

Quinn Patricia Langford Minor in Linguistics

Eugene K. Lee

Hanjie Liu

Rachel Jueun Park Minor in Management

Yuting Qin

Also with a Major in Course XVIII (See also M.Eng., Course VI-9)

Simon Radhakrishnan

Minor in Design

Gustavo Ramirez

Tara S. Sarma

Theodore Schoenfeld

Zoe L. Sheill (February, 2024)

Nakul Shenoy

Also with a Major in Course XVIII (February, 2024)

Nicole Zoi Shigiltchoff

Reece Smoyer Shuttleworth

(February, 2024)

Matthew Azariah Soza (February, 2024)

Bennett L. Stankovits

Amanda Grace Tong

Camille G. Uldry Lavergne

(February, 2024)

Opalina Vetrichelvan

Minor in Biology

Kelly G. Wang

Christopher Z. Wong

Harley B. Yoder II

Minor in Biomedical Engineering

Andrii Zahorodnii

Kristine X. Zheng

Minor in Women's and Gender Studies

Bachelor of Science in Earth, Atmospheric, and Planetary Sciences

Course XII

Department of Earth, Atmospheric, and Planetary Sciences

Phoebe Lin

Also with a Major in Course XVIII

Minor in Music

Rebecca Ann Mastrola

Claire J. McLellan-Cassivi

Also with a Major in Course XVI-ENG (February, 2024)

**Argen Smith** 

Also with a Major in Course VIII

Bachelor of Science in **Mathematics** 

Course XVIII

Department of Mathematics

**Daniel Acosta** 

Bhavya Kumar B. Agrawalla

Also with a Major in Course VI-4

Evgeniya Artemova

Also with a Major in Course VI-2

Gaurav Arya

Also with a Major in Course VI-2

Mauricio Barba da Costa

Also with a Major in Course VI-4

Sarah Gayle Bentley

Also with a Major in Course VI-4

Joseph A. Camacho

Joanna Y. Cao

Also with a Major in Course VI-14

Sichen Shawn Chao

Also with a Major in Course XV-2

Yiming Chen

Also with a Major in Course VI-3

**Emily Cheng** 

Also with a Major in Course VI-4

Abdellatif Anas Chentouf

Also with a Major in Course VI-4

Jake M. Chuharski

Also with a Major in Course VI-9 Minor in Music

Rvan Conti

Also with a Major in Course VI-3

Akash Das

Also with a Major in Course VI-3 (February, 2024)

Adam Deng

Also with a Major in Course VI-4

Paige Dote

Jonathan Seth Edelman

Also with a Major in Course VI-3 Minor in Chemistry

Ezra J. Erives

Also with a Major in Course VI-3

Ibrahim Suat Evren

Also with a Major in Course VI-14

Vincent K. Fan

Also with a Major in Course VI-3 (See also M.Eng., Course VI-P)

Elijah Oscar Fernández

Minor in Computer Science

Ishan Ganguly

Also with a Major in Course VI-4

Shu Ge

Also with a Major in Course VI-3

Eva L. Goldie

Maks J. Groom

Peter W. Hoffman

Minor in Finance (February, 2024)

Satya G. Holla

Also with a Major in Course VI-3 Minor in Economics

Anka Hu

Also with a Major in Course VI-9

Daniel Benjamin Hu

Also with a Major in Course VI-3

Michael J. Huang

Also with a Major in Course VI-3 Minor in Economics

Mehrab Sharif Jamee

Also with a Major in Course VI-3 (February, 2024)

Maxwell D. Jiang

Also with a Major in Course VI-3

Tianze Jiang

Also with a Major in Course VI-3

Benjamin G. Kang

Also with a Major in Course VI-3 (See also M.Eng., Course VI-P)

Also with a Major in Course VI-3

Elizabeth Ke

Also with a Major in Course VI-3

Veronica Khim

Minor in Finance

Lisa Kondrich

Minor in Computer Science

Zoë Kuhlken

Also with a Major in Course VI-2

Shauna Seoyeong Kwag

Stanislaus S. Lacksen

Minor in Finance

Ziyan Lei

Also with a Major in Course VI-4

Minor in Music Minor in Linguistics

Saba Lepsveridze

Rupert Michael Li

Also with a Major in Course VI-14 Minor in Business Analytics (See also M.Eng., Course VI-14)

Jason J. Liu

Also with a Major in Course VI-3 (See also M.Eng., Course VI-P)

Selena Shihui Liu

Minor in Computer Science

Siyu Liu

Also with a Major in Course VI-2

Jeffrey Lu

Yuyuan Luo

Minor in Writing

Zhao Yu Ma

Also with a Major in Course VI-3 Minor in Physics

Yuka Machino

Also with a Major in Course VI-4

Alizaye M. Manigo

Sage T.L. Maxwell

Katherine Evelyn Miner

Minor in Political Science Minor in Computer Science

Kartikesh Mishra

Also with a Major in Course VI-3

David C. Morgan

Also with a Major in Course XXI-M

Yuru Niu

Minor in Linguistics

Daniel T. Ogbe

Jeffery Opoku-Mensah

Also with a Major in Course VIII (February, 2024)

Elaine G. Ortiz

Also with a Major in Course XV-1

Katherine LiYue Pan

Mackenzie J. Relihan

Also with a Major in Course XIV-1

Elias G. Rojas Collins

Also with a Major in Course VI-3

Grace M. Rojo

Minor in Literature

Jon F. Rosario

Also with a Major in Course VI-3

Consecrata Maria Rozario

Also with a Major in Course VI-4

Daniel Alejandro Santiago-Alvarez

Semen Savkin

Also with a Major in Course VI-3

Jemma Wynne Schroder

Minor in Computer Science

Jeremy Lawrence Smithline

Also with a Major in Course VI-14 Minor in Statistics and Data Science

Thana Somsirivattana

Also with a Major in Course VI-3 Minor in Economics

Johan J. Soto

Also with a Major in Course XXIV-1

Alexis Katrin Spinetta

Minor in Finance (February, 2024)

Arnold C. Su

Also with a Major in Course VI-3

Pedro A. Suarez Aguirre

Also with a Major in Course XIV-1

Eric Rui Sun

Also with a Major in Course VIII

Yihang Sun

Chatchanun Suriyaammaranon

Also with a Major in Course VI-14

Minor in Management

Maxwell S. Turner

**Edward Wan** 

Also with a Major in Course VI-3

Frank Y. Wang

Minor in Computer Science

Andrew J. Weinfeld

Also with a Major in Course VI-3

Ryan Corrigan Welch

Also with a Major in Course VI-4

Benjamin P. Wright

Also with a Major in Course VI-4

Benjamin M. Wu

Also with a Major in Course VI-2

Yan Wu

Also with a Major in Course VI-3

Janabel T. Xia

Jingdong Xiang

Yi Xie

Also with a Major in Course VI-4

Alicia Yang

Also with a Major in Course VI-9

Andrew Yao

Also with a Major in Course VI-3

Zi Song Yeoh

Valerie A. Yuen

Also with a Major in Course VI-14

Ethan A. Zahid

Also with a Major in Course VI-3

Jerry J. Zhao

Also with a Major in Course VI-2

Wayne Zhao

Sebastian Zhu

Also with a Major in Course VI-3

Alexis Victoria Zitzmann

Minor in Entrepreneurship & Innovation

Minor in Management

Bachelor of Science in

**Mathematics with Computer** 

**Science** 

Course XVIII-C

Department of Mathematics

Brian C. Ahaneku

Yazan Almajnouni

Carlos Andrés Alvarado Álvarez

Esha Bhatia

Milo J. Cress

(February, 2024)

Jakob de Raaij

Minor in Art, Culture and Technology

Heidi Alba Durresi

Also with a Major in Course XXIV-2

Jacob H. Furfine

Minor in Ancient and Medieval Studies

(February, 2024)

Kennan F. Gumbs

Minor in Philosophy

James Cirrus Hawkes

Sasha Konovalenko

**Danny Mittal** 

Bryant K. Ndongmo

Christopher J. Pak

**Teague Avarie Rice** 

Daniel Villagran

Also with a Major in Course XXI-M

Sarah Wei

Minor in Business Analytics

**Sophie Chenyi Yang** Minor in Economics

Cathy Ann Yung Minor in Business Analytics (February, 2024)

# SCHOOL OF ARCHITECTURE AND PLANNING

#### **Master of Architecture**

Course IV

Department of Architecture

#### Christopher Hassan Allen, Jr.

(February, 2024)

A Souvenir for the Land of Pagodas

#### Caroline Amstutz

(February, 2024)

Frictitious Matters

# Justin Rene Brazier

(February, 2024)

Archi-Culture or Agri-Tecture: The Garden in The Machine

#### James Vincent Brice

(See also S.M., Course I)

Wave Mechanics in Constructed Oyster Reefs and the Design of Nature-Based Coastal Adaptation

#### Bella Carmelita Carriker

(February, 2024)

Fragments of Home: Domestic Businesswomen and Collective Motherhood

# Aleksy Robert Dojnow

(February, 2024)

Careful Design: Using Multi-Modal
Data and Virtual Reality to Bridge the
Subjectivity Gap in Architectural SpaceMaking

# Inge Geraldine Donovan

(See also S.M.Building Tech., Course IV) The Matter of the Hold: Housing Futures and the Paradigm of the Ship (with D. Pankhurst)

# Lauren Taylor Gideonse

(February, 2024)

Love in the Fast Lane: Not-so-New Models for American Stewardship and Preservation

#### Adriana Giorgis

(February, 2024) How Old is Now?

#### William DeBruhl Marshall, Jr.

(February, 2024)

Land Material Geometry: Spline Construction with Invasive Species in a Time of Water Crisis in the Colorado River Basin

#### Sahil Dharam Mohan

(February, 2024) Bleeding Details

#### **David Keith Pankhurst**

The Matter of the Hold: Housing Futures and the Paradigm of the Ship (with I. G. Donovan)

#### Ellen Marie Reinhard

(February, 2024)

Changing the Course: Reimagining Switzerland's Aging Nuclear Infrastructure

#### Katherine Molly Shulman Rotman

(February, 2024)

Destroy Your School: Building with Kids to Reimagine Learning

# Jenna Ashley Schnitzler

(See also S.M.Building Tech., Course IV) Tectonics of the Semi-Permanent: Reassembling Fit-Out Architecture

# Amanda Adaku Ugorji

(February, 2024)

Not Allowed: Practicing Process

# **Yiqing Wang**

(February, 2024)

Nothing Unwanted: Prototyping Matter Out of Place

#### Susan Williams

(February, 2024)

Soft at the Joints

#### **Yuting Zeng**

Matter Mind Body Making

#### Calvin Zhong

(See also M.C.P., Course XI) A Jail Is Not Social Housing: Making New Grounds for Chinatown

# Master of Science in Architecture Studies

Course IV

Department of Architecture

#### Merve Akdogan

Gender Glitch Matrix: Queer Aesthetics and the Politics of Error in Digital Media

# Hajar Alrifai

Echoes from the Stone: Reframing Preservation in Syria through Haurani Folklore

#### Ghida Jamal Anouti

Between City and Self: Reading Beirut in Mohamed Soueid's Tango of Yearning

#### Christina Dimitri Battikha

Salt to Scale: The Seasoning of Buildings

#### Ekin Bilal

Office of Back of House

#### **Adam Thomas Burke**

In Tension: Computational Exploration of the Design Space of Tensile Network Structures

# Maria Gabriela Carucci Alvarez

When the Earth Breathes: An Ontology of Volcanic Urbanism

# Cheng-Hsin Chan

Damp Skin: Portraits of Taiwanese Domesticity, Resilience, and Otherness

#### Juan Manuel Chávez Fernández del Busto

The Cycles of aMaízing Things

#### Chi-Li Cheng

Alive Scene: Participatory Multimodal AI Framework for Collective Narratives in Dynamic 3D Scene

#### Zoe De Simone

(See also S.M., Course VI) Developing Frameworks for an Equitable Future: from Building Decarbonization to Generative Modeling

#### Laura-India Garinois

Designing (with) Trees: Active Agents in Architectural Production

# **Crystal Ling Griggs**

Mapping Wildness: Simulating Post-Extraction Wildland Regeneration

#### Nebyu Samuel Haile

Low Cost Masonry for the Design of Barrel-Vaulted Flooring Systems

#### Mahwish Khalil

Alternate Imaginaries for the Kinara: River Ravi's Edge as a Threshold

#### Amanda Rose Kirkeby

How Much Does it Really Cost?: A Dynamic Approach to Building Retrofit Costs for Decarbonization Pathways

#### Dhwani Mehta

Common Grounds in Shared Waters: Integrated Design for Negotiating Equitable Development in Gosabara-Mokarsagar

# Seyedeh Boshra Moossavi

(September, 2023)

The Idea of Heritage in Nineteenth-Century Iran: Nādir Mīrzā's Account on **Tabriz** 

#### Tamar M. Ofer

(September, 2023)

(See also S.M., Real Estate Development) The Collective Speculators' Playbook: Subversive Market Forms for Common Wealth

# Selin Sahin

(September, 2023) Non-Peripheral: Re-Thinking the Organized Industrial Zone

# Karl-Johan Ingerslev Sørensen

(See also S.M., Course I) From Waste to Structure: A Deep Reinforcement Learning Approach for Circular Design

#### Yi-Ern Samuel Tan

The Technical Discourses of Miyake Design Studio: Episodes in the Interpretation of Cloth, 1995-2007

#### Demircan Taş

(See also S.M., Course VI) Parametric Paintover: Generating Design Models via Image Encoders and Latent Trajectories

#### Hon Ting Wong

Excercising a Haunted City

#### Wangli Yi

Data-Driven Home Workspace Design: Interactive DIY Platform Mediating the User and Expert Literature

# Master of Science in Art, **Culture and Technology**

Course IV

Department of Architecture

#### Zhanyi Chen

Stories of the Sky

#### Aubrie Rose Manion James

What is Ecology?

#### Ashmi Mridul

(September, 2023)

Filling the Gaps - Exploring the Scope of Arts-Based Education in Jodhpur

#### Mrinalini Singha

Disrupting Monocultural Tendencies through Multimodal Montage

# Master of Science in Building **Technology**

Course IV

Department of Architecture

# Inge Geraldine Donovan

(See also M. Arch., Course IV) From Liquid to Stone: Reimagining the Design of Concrete Structures for Reuse (with J. Schnitzler)

# Svenja Vanessa Herb

Beyond the Bioclimatic Chart: An Automated Simulation-Based Method for Assessing Natural Ventilation and Passive Design Potential

# Zoe Emmanuelle Le Hong

Accelerating Urban Building Energy Modeling (with S. Wolk)

#### **Lauren Christine Moore**

Pathways to Net Zero: Building Retrofit Financing Strategies for Low-Income Homeowners

# Jenna Ashley Schnitzler

(See also M. Arch., Course IV) From Liquid to Stone: Reimagining the Design of Concrete Structures for Reuse (with I. G. Donovan)

#### Samuel Zackson Wolk

Accelerating Urban Building Energy Modeling (with Z. Le Hong)

#### Pitipat Wongsittikan

Automated Engineering Design for Reusable Concrete Building Structures

# **Master in City Planning**

Course XI

Department of Urban Studies and Planning

#### Surbhi Agrawal

(September, 2023)

The Hidden Network: Addressing Digital Equity Through Meaningful Connectivity in Urban India

#### Samantha Rose Aibinder

Seeding Trust, Sustaining Equity: Funding and Financing Relationships in the Greater Boston Community Land Trust Network

#### Anastasia Aizman

A Fifty Million Dollar Piece of Dirt: Somerville as a Case Study in Development

#### Tracy Joseph Allen, Jr.

(See also M.B.A., Course XV) Black Collective Memory as Economic Development Practice: Resistance and Renaissance in Louisiana's River Parishes

#### Natasha Ansari

(September, 2023)

Planning for the Margins: Mapping Conceptual Implications of Profound Intellectual Disability and Informality Through Slovo Park, Johannesburg

#### Gabriel C. Barrett

Boston Night Owl: A Framework for Introducing Overnight Bus Service That Can Close Significant Spatiotemporal Gaps in Greater Boston's Transit System

#### Kimberly Stephanie Becerril

Deep Decarbonization of California's Transportation Sector: A Comparative Analysis of Aviation, Electric Vehicles, and High-Speed Rail using the ASIF Framework

#### David Berón Echavarría

On Power: How Colombia's Oil Company Can Support the Country's **Energy Transition** 

#### Raul Manuel Briceno Brignole

(See also M.B.A., Course XV) The Market for Food: Proposing New Financial Products to Reduce the Qualitative Housing Deficit among Female Led Houses in Peru

#### Bennett Capozzi

Evolution of a Useful Place: The Gas Station in America

#### Anushree Chaudhuri

Perspectives on Power: Characterizing Public Perceptions Towards Large-Scale Renewable Energy Development in the United States

#### Yu Jing Chen

(September, 2023) Growth for Whom? Sacrifice of Chicago's Chinatown Then and Now

# **Austin Kristopher Cole**

(See also M.B.A., Course XV) Exploring practices of translocal grassroots economies: Planning as a tool of liberation for Africans in the Americas

#### **Annabel Claire Consilvio**

Encouraging Reuse in Rural Italy: A Case Study Implementing New Frameworks to Collect Local Data and Understand Feasible Reprogramming Strategies in Guadagnolo

#### **Austin Cameron Davis**

Tangled Deeds, Crime, and Land Use: A Geospatial Look into West Philadelphia Displacement

#### Fabio Marcel de Castro Filho

Jaywalking Index: Visual and Socio-Demographic Patterns in London

#### Lia Yong-Zhen Downing

Building Blocks of a Just Transition: Green Banks and Residential Building Decarbonization in New York

#### Eli Zachary Epperson

Planning for the Growth of the Life Sciences in Philadelphia: Workforce and the Bellwether District

#### **Emily Gao Fang**

Retrofitting Affordable Multifamily Housing: A Survey of Landlords in Cincinnati, Ohio

#### Émilie Grace Flamme

Navigating Shared Vulnerabilities: Climate Adaptation on the Split Island of Saint Martin

# Lakshmi Chaitanya Reddy Gangamreddypalli

(September, 2023) Municipal Bonds for Financing India's Urban Infrastructure: The Case of Indore

#### Patricia Michelle Garcia Iruegas

How Can Cities Effectively Address Gun Violence? Exploring Political Leadership and Organizational Management

# Juanita Halim

(September, 2023) Re-Thinking Urban Retail: The Design and Planning of "Dark Stores" and Public Spaces, Case Study: Manhattan, New York

# Journee Akili Harris

Redignifying LaVilla: Visualizing and Recentering Black Epistemologies in the Revitalization of LaVilla, Jacksonville, Florida

## Emma Marie Heneine

Cooking Together: Form & Function of Community Kitchens as Urban "Third Places" Promoting Community Wellbeing

# Marco Leonardo Javier Herndon Melgarejo

Salvemos Barranco: Contested Visions for the City and Transportation in Barranco, Lima, Peru

#### Melissa D. Hill

The Imperfect Question of Stadium Development: A Typology of Contemporary Development and Strategies for a Sustainable Future

#### **David Suk Hong**

(September, 2023) Age-Inclusive Design Framework for On-Demand, Shared Autonomous Vehicles

#### Rebecca Helen Houston-Read

Sustainable Homes for All: Designing a Clean Energy Incentive for Boston's Section 8 HCV Landlords to Improve Tenant Quality of Life

#### McKenzie Ross Humann

(See also S.M., Transportation) From Pilots to Stable Services: Documenting the Rise and Diversity of Microtransit in the U.S.

# Dyanna Michelle Jaye

A New Era for the Old Dominion: Strategies for the Virginia State Government to Lead an Equitable & Ambitious Energy Transition

#### Yabework Abebe Kifetew

Pathways to Equity: Mapping the Impacts of Nairobi's Urban Form on Pedestrian Mobility

#### MinJi Kim

Shaping the Future Amid Decline: Integrative Strategies for Aging Koreans and Migrant Workers in South Korea's Shrinking Regions

#### Joseph Landis

(February, 2024) Examining the Introduction of Marketplace Dynamics into the United States' Refugee Housing System: Challenges, Successes, and Considerations for Scale

#### Ana Amelia Letelier

The Story of a Towel: A Comprehensive Approach to Disaster Preparedness: Enhancing Inclusivity and Sustainability in Chile's Emergency Disaster Kits

#### Trinh Pham Hai Linh

From Factories to Classrooms: The Influence of FDI-Led Industrialization on Educational and Vocational Training Infrastructure in Binh Duong Province, Vietnam

#### Francisco Emilio Mackin-Plankey

Designing a Home Share Program for Asylum Seeking Migrants in New York City

#### Soad Ali Mana

(September, 2023) Virtual Sheriff Sales: Contested Narratives on Tax Sales in Philadelphia,

#### Katelyn Rose McVay

(February, 2024) Climate Change and Aging: Analyzing the Disproportionate Health and Socioeconomic Vulnerabilities of Older Adults in Relation to the Climate Crisis in the U.S.

# Mariama N'Diaye

(See also M.B.A., Course XV) The Civic Design Room: Conversations on What It Looks Like To Operationalize Design in Government? With Community, Within Government, and Within Your Team

#### Anisha Patil Nakagawa

(February, 2024) Understanding Climate Change through a Community Definition of Resilience: Qualitative Analysis of Interviews and Implications for Practice

# Jason Mick Ng

(See also S.M., Real Estate Development) Claiming Identity through Space: LGBTQ+ Community Building via Commercial Development in West Hollywood and Palm Springs

# Nineveh O'Connell

Wildly Inaccessible: Reaching Public Lands via Public Transit

#### Hazel Backus O'Neil

Pa'ashi Park: Resiliency, Restoration, and Reparative Planning for California's Tulare Lake Basin

# Sung Eun Sally Oh

Organized Labor & Just Transition: Examination of the Role of Organized Labor in Advancing Equity through Clean Energy Investments

#### **Elyse Lenore Oliver**

Community Transportation Acts Archive

# Oussama Ouadani

An Agroecological Response to the Militarized Urban in Vieques, Puerto Rico

#### Nolen Phya

The Mirror Project: A Portrait of Urban Inequality

#### Muhammad Rizki Rayani Ramadani

Navigating Vulnerability: Harmonizing Disaster Risk Reduction and Management with Socio-Spatial Construction of Risk in Post-Tsunami Aceh

#### Tiandra M. Ray

Urban Wilderness, el Campo en la Ciudad: Liberatory Land Practices and Gardens as Portals in the Puerto Rican Diaspora

#### Eduardo Rosario

(See also M.B.A., Course XV) Balancing Purpose and Growth: **Evaluating Community Land Trusts** (CLTs) as an Organizational Model and the Imperative for Strategic Management

#### Ponpat Sahacharoenwat

Understanding the Complex Dynamics of Regenerating Urban Vacancy: A Case Study of Songkhla, Thailand

# Victoria Daniela Santiago Araiza

Local Autonomy and the Value Capture Debate in Mexico City: A Land-Based Analysis Towards a Decade of Political Reform

#### Leonard Robert Schrage

Visual AI for Sustainable Urban Development: Computer Vision and Machine Learning Applications for Climate and Social Impact

#### Daud Shad

Seeking Relief in the City: An Examination of Planning in Karachi to Support Internally Displaced People after the 2022 Floods in Pakistan

#### Anushka Vijay Shahdadpuri

Building Coastal City Resilience and Extreme Heat Action in Zanzibar, Tanzania through Multi-Hazard Risk Assessment (MHRA)

#### Misha Shahid

Confronting Glacial Hazards: A Study of Disaster Impact and Community Adaptation to Glacial Lake Outburst Floods in Hunza, Pakistan

#### Hannah Nicole Shumway

Databases for Healing and Justice: Co-Design with a Grassroots, Indigenous Organization

#### Sarah Joella Simon

(February, 2024) PFAS and the Future of Rural Land

#### Melissa Qingqing Teng

(September, 2023) The Urgency of Presence: Designing Healing Community Spaces After Displacement

#### Bethlehem Fisseha Tesfaye

Beyond Rural to Urban: Examining Urbanization and Quality of Life in Hawassa, Ethiopia

#### Eva A. Then

Investigating the Impacts of Boston's Fare Free Bus Route on Urban Mobility Behavior: A Framework for Causal Analysis

#### Diamond Nichole Christine Thompson

Klondike Memory Project: Race, Counter-Memory, and Planning Processes

# Yuvika Tolani

Making Place for Arts & Culture: How Arts & Culture Play into Interdisciplinary Strategies for Community Development without Displacement

# Keili Alana Tucker

Step by Step: Suburban Active Transportation Planning in Spring Hill, Tennessee

# Nwakaego Uzoh

(See also M.B.A., Course XV) How Post-Pandemic Public Transit Journeys Can Inform Employers' Return to Office Strategies in Boston, MA and Washington, DC

# Sanne Eva Wright

Whales & Wind: A Case Study on Misinformation About Renewable Energy Development

#### Keiko Yabe

Reflective Planning and Design for Community Resilience: A Case Study in a Vulnerable and Shrinking Japanese Village

#### Elisha Rose Zhao

Home, Again: Recommendations for Strengthening Social and Financial Post-Buyout Outcomes of the New Jersey Blue Acres Program

# Calvin Zhong

(See also M. Arch., Course IV) A Jail is Not Social Housing: Making New Grounds for Chinatown

# Master of Science in Media Arts and Sciences

Program in Media Arts and Sciences

#### Chelsi Alise Cocking

(September, 2023) Îlluminate

#### Aniruddha Ghosh

Structural Wireless Delamination Sensor

#### Lingdong Huang

(September, 2023) Drawing as Programming Language

#### Kyuho Jang

Development and Evaluation of a Potentially Wearable Device for Circulating Cell Monitoring

# Ila Krishna Kumar

(September, 2023) Fostering Well-Being: Designing Technology to Improve the Psychological Well-Being of Foster-Involved Youth

# Naana Darkwaa Obeng-Marnu

Translations: Designing Restorative Listening Spaces in the Age of Social Fragmentation

#### Preet Rajeshkumar Patel

Peripheral Nervous System Modulation with Wireless Cellular Sized Freestanding Injectable Devices

#### Leonard Francis Vibbi

(September, 2023) Human Code Exchange(HCX): A  $Community-Value-\bar{Driven}\ Framework$ for Data Governance in Humanitarian

#### Thais Cavalcanti Xisto

(September, 2023)

Playful Occupations: Mobile Creative Coding for Critical Consciousness

#### Wazeer Deen Zulfikar

AI Interfaces for Augmenting Episodic

# Master of Science in Media **Technology**

Program in Media Arts and Sciences

#### Maxwell Kwadwo Addae

(September, 2023)

VocalCords: Exploring Tactile Interaction & Performance with the Singing Voice

# Cecilé Elyse Sadler

(September, 2023) Fugitive Spaces for Cultivating Creativity: A Framework for Value-Centered Learning Environments

# Master of Science in Real Estate **Development**

Center for Real Estate Development

# Christopher

(February, 2024)

Negotiating ROI (Return on Investment) for ROI (Return on Impact): A Pre-Feasibility Study of Socio-Eco Nature Based Resort Development in Eastern Indonesia

#### Yoonseo Cha

(February, 2024)

Real Estate Strategies for Mission-Driven Organizations

# Rohit Singh Chauhan

(February, 2024)

Applications of Generative AI in Real **Estate Industry** 

# Gautham Somana Chotangada

(February, 2024) Examination of Airbnb Demand and Supply in India

# William George Coen II

(September, 2023)

Understanding Developer and Lending Risk Associated with Offsite Construction in Various Different Housing Markets

#### **Nick Kelly Dessalines**

(September, 2023)

The Future of Office Space

#### Yizhuo Ding

(February, 2024)

The Performance of Real Estate Investment Strategy Across Multiple Cycles: A Comparison of Core and Non-Core Strategies Based on A New Dataset and Industry Interviews

#### Mamoun El Alaoui El Abdallaoui

Terra Firma: Navigating Morocco's Built Environment & Terrain

#### Julio E. Flores Jimenez

(February, 2024)

Unveiling the Dynamics of Inflation in Housing Rent

#### Nayeon Hong

(February, 2024)

Elsewhere in New York City: Seeking Opportunities for Office Conversion

# Khanachai Kittisorayut

(February, 2024)

Real Estate Redevelopment Framework: Quantitative Analysis of Adaptive Reuse Strategies

# Sang Hyup Lee

(February, 2024)

Navigating the Storms of Distressed Ventures: South Korean Investments in US Office Real Estate

# Mingyao Li

(February, 2024) Distressed Real Estate Investment Strategy in North America

# Carlos Augusto Mejia Martinez

(September, 2023)

Flooded with Possibilities: Analyzing Flood Insurance as a Catalyst for Development in Southeast Florida

#### Andrew John Nader

(February, 2024) Housing in Massachusetts

#### Jason Mick Ng

(See also M.C.P., Course XI) Claiming Identity Through Space: LGBTQ+ Community Building via Commercial Development in West Hollywood and Palm Springs

#### Tamar M. Ofer

(September, 2023) (See also S.M.Arch.S., Course IV) The Collective Speculators' Playbook: Subversive Market Forms for Common Wealth

#### Joon Tae Park

(September, 2023) Shared Equity Homeownership in Korea: Analysis of the First Public Programs

#### Clemens Frederic Reimer

(September, 2023) Analysis of Acquirer Abnormal Returns in Listed European Real Estate M&A Transactions

#### Yueqi Sun

(February, 2024) Top Retailers in the United States: A Changing Landscape of Space Demand in a Post-COVID Era

#### Shao Lan Wang

Charting A Course Through Uncharted Terrain: Seeking Opportunities in the U.S. Real Estate Private Debt During Challenging Times

#### Tsung-Hsuan Wu

(February, 2024) Real Estate Performance and Business Cycles

#### Ben Xu

(February, 2024) Solar Roof Monetization in US Industrial Real Estate

# **Master of Science** (without specification of field)

#### Nicole Bakker

Med. Arts & Sciences Material Recovery Potential from Solar Photovoltaics: Predictive Modeling and Characterization to Advance the Circular Economy

#### Gauri Gupta

Med. Arts & Sciences Unlocking Collective Intelligence in Decentralized AI

# Samantha Gutierrez Arango

Med. Arts & Sciences Force Dynamics of the Rat Lateral Gastrocnemius Muscle After Undergoing Sensory Protection

#### Charles Jiali Lu

Med. Arts & Sciences Decentralized Data Markets

#### Nazish Naeem

Med. Arts & Sciences (September, 2023) Investigations into Ultra-Low-Power **Underwater Imaging** 

#### Simeon Ivanov Radev

Med. Arts & Sciences The Prime Factorization of Proteins

# Ikra Iftekhar Shuvo

Med. Arts & Sciences (September, 2023) Microfabrication and Characterization of a New Box-Shaped High Frequency (7.5 MHz) Low Aperture 2D Phased Ultrasound Transducer Array

#### Siddharth Somasundaram

Med. Arts & Sciences Mobile Multi-Bounce LiDAR

# Boyu Zhang

Med. Arts & Sciences (September, 2023) Circadian and Multi-day Rhythms in Generalized Tonic-Clonic Seizure: A Probabilistic Approach

#### Lige Zhang

Med. Arts & Sciences Tools for Mapping the Links Between Stimuli, Affective States, and Behavior through Whole-Brain Imaging in Zebrafish Larvae

# SCHWARZMAN COLLEGE OF COMPUTING

# Master of Science in Computational Science and **Engineering**

Program in Computational Science and Engineering

# Utkarsh

Automating Heterogeneous Parallelism in Numerical Differential Equations

#### Meshal Abdulrahman S Alharbi

(See also S.M., Course VI) Sample Efficient Reinforcement Learning with Partial Dynamics Knowledge

#### Noor Almazroa

(September, 2023) Assessing Transit Oriented Development Using Satellite Imagery: Riyadh vs. Phoenix

# Demi Lin Fang

(See also Ph.D., Course IV) Informing Decision-Making in Single-Objective, Mixed-Variable Design Problems

# Yuliia Orlova

(September, 2023) Gradient-Based Optimization of ReaxFF Parameters Using Pytorch for the Study of Silica Precipitation

# **Christopher Terrence Quinn**

(September, 2023)

A Lagrangian, Discontinuous-Galerkin Material Response Solver for the Analysis of Ablative Thermal Protection Systems

# Aaditya V. Rau

Quantification of Elastic Incompatibilities at Triple Junctions Via Physics-Based Surrogate Models

# Jaya Manideep Rebbagondla

(February, 2024) Neural Implicit Representations for Engineering Design

# Alexander Zhong Wang

Structure-Guided in Silico Design of RNA Aptamers and Ligands

# Master of Science in Social and **Engineering Systems**

Program in Data, Systems, and Society

#### Xinyi Han

A Causal Framework to Evaluate Racial Bias in Law Enforcement Systems

# Master of Science in Technology and Policy

Institute for Data, Systems, & Society

#### Alanoud Omar Alhakbani

Battery Blueprint: Saudi Arabia's Strategic Foray into the Battery Value Chain

#### Bhavani Ananthabhotla

(September, 2023) Impact of Affirmative Fair Housing Marketing Plan Regulations on Experienced Residential and Neighborhood Diversity Following Tenant Selection

#### Layla S. Araiinejad

The Techno-Economic Analysis of Deuterium-Tritium Fusion Power Plants: An Assessment of the Economic and Social Implications Associated Deployment

#### Les Gabriel Armstrong

(See also S.M., Course VI) Modeling the Impact of the Inflation Reduction Act and Hydrogen Storage in Salt Caverns in the Mid-Atlantic United States

# Lauren Jennifer Blanks

An Investigation into Novel Aluminum Fuel for Expeditionary Power Applications

#### Eunseo Choi

(February, 2024) (See also S.M., Course VI) When, Who, How (Not) to Imitate? The Role of Imitation in Collective Intelligence, and Its Implications on the Design of Socio-Technical Systems

#### Christian Earl Cmehil-Warn

(See also S.M., Course VI) Hollywood Workers vs Tech: In Theory and in the News

#### Adrien Concordel

Securing the Future: US Policy Perspectives for Critical Materials

#### **Taylor Lynn Curtis**

Documentation as a Tool for Algorithmic Accountability

#### Aniruddha Suhas Deshpande

(September, 2023) (See also S.M., Course VI) Machine Learning for Modeling and Control of a Packaging Manufacturing Process

#### Luc Marcel Marc Gendre

Uniting Expertise in International Development: Rethinking Decision-Support Technologies for Inclusive Stakeholder Engagement

#### Michael Anthony Giovanniello

Strategies for Electricity Procurement to Achieve Zero Emissions

# Kailin Graham

(February, 2024) (See also S.M., Course VI) Doing the Dirty Work: Analyzing the Distribution of Employment Vulnerability to the Energy Transition Through Employment Carbon Footprints

# Dansil Lynnee Green

In-Space Assembly of a Remote Sensing CubeSat for Rapid Disaster Response

# Lan Linh Hà

(See also S.M., Course VI) Empowering Energy Conservation: Low-Cost Interventions for Commercial and Residential Settings

#### Peter John Heller

Assessing United States Energy Poverty Policy: Regulatory Design Alternatives and Resource Allocation

#### Courtney Regina Kirkpatrick

(See also S.M., Course XVI) A Technical and Policy Needs Analysis for Space Traffic Management of Low Lunar Orbit

#### **Benjamin Bernard Lewis**

Drug Policy as Public Health Policy

#### Beichen Lyu

(September, 2023) Regulatory Benchmarking by Machine Learning: The Case of Climate Resilience in Electric Utilities

#### Rameen Hayat Malik

Barriers and Opportunities for Building Responsible Nickel to Electric Vehicle Supply Chains in Indonesia

# Christopher Coleman Maynard

Understanding the Past, Present, and Future of Protein Security

#### Mrigi Munjal

(See also S.M., Course III) Strengthening Value Chains for Developing and Deploying Batteries in the Global South

#### Johnattan H. Ontiveros

Contractor Learning and Home Energy Efficiency in Heat Pump Installations

# Serena Naresh Patel

(February, 2024) (See also S.M., Course VI) Coal Retirement Strategies in India: Repurposing Coal Plants into Thermal **Energy Storage** 

#### Mahmoud M. Ramadan

(September, 2023) (See also S.M., Course II) Methodology for Pyrolysis-Induced Thermal Runaway Analysis in Li-ion **Batteries** 

#### Deepika Raman

Deriving Community-Relevant Axes/ Attributes for LM Alignment

# Edgar Ramírez Sánchez

(See also S.M., Course VI) Learning Surrogates for Diverse Vehicle **Emission Models** 

#### Abigail Marie Randall

The Policy, People, and Place Impacts of Mining for the Clean Energy Transition in the US

# Jorge Isaac Sandoval Sandoval

(September, 2023) Targeting the Innovation Pipeline in Emergent Technology Ecosystems: The Case of Government Interventions in Quantum 2.0 Technologies

# Morgan Andrew Santoni-Colvin

(September, 2023)

The Power-Gas Demand Impacts and Regulatory Implications for the Future of Gas Systems Under the Electrification of Space Heating in Cold Climates

#### Youssef Hassan Sayed Shaker

(February, 2024) (See also S.M., Course VI) Multi-Vector Energy Systems Analysis for Low-Carbon Power and Transportation

#### Paul Pierre Marie Sizaire

(September, 2023) The Procurement of Low Carbon Hydrogen in Germany and the United States

#### Prajna Vinay Soni

(See also S.M., Course VI) Addressing Misalignment in Language Model Deployments through Context-Specific Evaluations

# Graham Matthew Turk

Designing Electricity Distribution Network Tariffs for Beneficial Electrification

#### Varsha Vaidyanath

Benchmarking Pavement Environmental Performance Using Data-Driven Modeling and Policy

# Christopher B. Womack

(February, 2024) (See also S.M., Course XVI) Development and Stakeholder-Informed Evaluaiton of Global Climate Temperature Response Functions

# Philipp Zimmer

(February, 2024) (See also S.M., Course VI) Advancing Anticipatory Action in Humanitarian Aid and Development Using Natural Language Processing

# **SCHOOL OF ENGINEERING**

# Master of Engineering in Civil and Environmental Engineering

Course I-P

Department of Civil and Environmental Engineering

#### **Anne-Sixtine Harlin**

The Garabit Viaduct: A Historical and Structural Study

#### Malo Pierre Jean Lahogue

Resiliency Oriented Scenario Generation Framework for Natural Gas Infrastructure

#### Catherine Suet-Ching Lu

Soil Moisture-Based Drought Monitoring Using Remote Sensing over Africa

#### Katherine Pamela Moir

Overturning of No-Tension Towers

#### Jacob Alexander Morgan

Evaluation of Deep Learning Algorithms in Predicting Seismic Response of a Reinforced Concrete Structure

# Ines Ortea Varela

Exploring the Mechanical Behavior of a Traditional Japanese Joint for Flexible Structural Design

#### Jad Raad

Microneedles for Easier Fish Skin Penetration and Longer Attachment

# Jennifer Lin Schug

Tradeoffs Between Aboveground and Soil Carbon Accumulation Following Forestation

# **Antony Johan Sutanto**

Cracking Common Notions Relating Egg Strength to Impact Orientation

# **Bo Junior Tignol**

Effect of Turbine Motion on Floating Offshore Wind Turbine Aerodynamics

#### Raphaël Trézarieu

Farm-Scale Water Storage in Morocco: Low-Carbon Design with Parametric FEA Optimization

#### Sydney Caitlyn Wickman

Estimation of County-Level Evapotranspiration and Irrigation Using High-Resolution Planet Satellite Data

#### **Ruth Hodin Wilson**

The Structure of the Registry Hall at Ellis Island

# Master of Science in Civil and Environmental Engineering

Course I

Department of Civil and Environmental Engineering

#### Alexander Adekunle Adelabu

(See also M.B.A., Course XV) Improving Efficiency in Lubricant Logistics: A RelaDyne Case Study

#### Siddhant Agrawal

(See also M.B.A., Course XV) Digital Twin-Driven Supply Chain Enhancement to Support Direct-to-Consumer Growth

#### Faisal Ibrahim Alnasser

(September, 2023)

Tracking Dust Plumes and Identifying Source Areas Using Spatiotemporal Clustering of Remote Sensing Data

# Shivam Bhakta

(See also M.B.A., Course XV) Sustainability Analytics - Lowering Emissions With Operational Efficiency

# James Vincent Brice

(See also M. Arch., Course IV) Wave Mechanics in Constructed Oyster Reefs and the Design of Nature-Based Coastal Adaptation

# Rebecca Lyn Cohen

(See also M.B.A., Course XV) Oil & Gas Regional Operations Electrification Estimation

# **Jack Zhou Easley**

(See also M.B.A., Course XV) Engineering Strategy for Reshoring

#### **Thomas Henzel**

Mechanical Behavior and Interfacial Failure of Adhesive Soft Solids under Torsion

#### **Cameron Thomas Gerald Hoffman**

(See also M.B.A., Course XV) Modeling System Efficiency in Mixed-Model Assembly Lines

#### **Eve Rachel Meltzer**

(February, 2024)

A Microscale Analysis of Millimeter-Wave Induced Vitrified Basalt for Use in Enhanced Geothermal Energy Systems

#### Mark Bryant Membreno

(See also M.B.A., Course XV)
Price Elasticity of Air Travel Demand
Using Econometric and Machine
Learning

#### Yanghan Qi

(See also M.B.A., Course XV) Building Inventory Simulations for High Velocity Garment Retail Stores

# Sierra Nicole Rosenzweig

(See also M.B.A., Course XV) Greenhouse Gas Optimization Across a Multi-Echelon Manufacturing and Distribution Network

# Patric Ryser

(February, 2024) Sensitivity of Precipitation to Land-Use Changes in a Regional Climate Model of West Africa

# Gillian Lee Schiffer

Embedding Engineering Intuition into Computational Design through Interactive Topology Optimization

# Stéphanie Emmanuelle Sévère

(See also M.B.A., Course XV) Creating the Warehouse of the Future

#### Karl-Johan Ingerslev Sørensen

(See also S.M.Arch.S., Course IV) From Waste to Structure: A Deep Reinforcement Learning Approach for Circular Design

# Sajiree Vivek Vaidya

(See also M.B.A., Course XV) Data Roadmap for Last Mile Sustainability

## Carlos David Vela González

(See also M.B.A., Course XV) Resilient by Design: A Supply Chain Digitalization Journey

#### Adam Donald Vignaroli

(See also M.B.A., Course XV) Establishing Inventory Maturity in a Make-To-Order Manufacturing Environment

#### Athikom Wanichkul

Structure Function Relation of Porous 2D Material via SGCMC Simulation and Statistical Models

#### **Daniel Thomas Willette**

(See also M.B.A., Course XV) Paths to Achieving Scope 1 Carbon Neutrality in Building Utilities

#### Rong Yao

(See also M.B.A., Course XV) Delivery Estimate Accuracy: Understanding and Reducing Virtual-Physical Mismatches and Missorts in **Fulfillment Centers** 

# **Master of Engineering in** Advanced Manufacturing and **Design**

Course II-P Department of Mechanical Engineering

#### Hadeel Ayman Abdo

(February, 2024) Design and Development of a Mobile Motion Capture Suite for Advancing Technology Adoption

#### Cheng Chang

(September, 2023) Enhancing the Accessibility and Usability of Motion Capture Technology: Design and Development of Indoor MoCap Hardware System

#### Sophia Cheung

(September, 2023) Machine Learning Methods for Automated Macro-Inspection and Improved Defect Identification in Semiconductor Manufacturing

#### Vineeth Gowra

(September, 2023) Optimization of Throughput in Sheet Metal Manufacturing by Tuning the Sheet Metal Nesting Strategy Based on Sheet Utilization and Downstream Part Handling Costs

#### Somesh Sunil Jaiswal

Enhancing Engineering Education: Integration of the Desktop Fiber Extrusion Device (FrED) for Hands-On Learning in Smart Manufacturing

#### Mingyuan Li

(February, 2024) (See also S.M., Course VI) Process Optimization and Cost Analysis of Electrochemical Micromachining for Volume Manufacturing

# James Chandler Liggett

(September, 2023) Cost Optimization in Sheet Metal Manufacturing by Tuning the Sheet Metal Nesting Strategy Based on Sheet Utilization and Downstream Part Handling Costs

## Pierre Lonni

(February, 2024) From Lab to Life: Bridging Gaps in Motion Capture for Public Accessibility through Integrated Hardware and Software Solutions

#### Keeghan Jayden Patrick

(February, 2024) A Machine Learning Approach to Improve Diameter Control in Desktop Fiber Extrusion Processes

#### Gazi Sadman Sakib

Mechanical Design and Learned Control System Development of Fiber Extrusion Device on Industrial Programmable Logic Controller (PLC) Platform

#### Jonathan A. Sampson

(September, 2023) Improving Macroscale Defect Detection in Semiconductor Manufacturing Using Automated Inspection with Convolutional Neural Networks

#### Gary Sefah

(September, 2023) Low-Cost Fiber Extrusion Device for Educational Purposes: Redesign, Manufacture, and Computer Vision Integration

# John Timothy Waterworth

(September, 2023) Deep Learning for Macroscale Defect Detection in Semiconductor Manufacturing

#### Wenhao Xu

(February, 2024) Development and Production of Affordable Desktop Fiber Extrusion Devices (FrED) for Educational Purposes

#### Yutong Zhang

(February, 2024) Development of Process Control Framework Incorporating Deep Reinforcement Learning for Desktop Fiber Extrusion Device via PLC Implementation

# Master of Science in Mechanical **Engineering**

Course II

Department of Mechanical Engineering

#### Marcelo Oliveira Aguiar

(See also M.B.A., Course XV) Economic Comparison of Solar Racking Options to Decarbonize Florida Power & Light's System

#### Asia Mon'a Allison

(See also Naval E., Course II) Design and Modeling of Offshore Nuclear Platform Fuel and Transfer System

#### Cathleen Arase

An Invertebrate-Inspired Approach to Design and Manufacturing in Soft Robotics

#### **Kevin James Becker**

Development of a Distributed Simulation Cluster for MOOS-IvP

#### Elizabeth Marie Bernhardt

(February, 2024)

Probing the Role of Amines in Aqueous Electrochemical Reduction of Captured-State CO<sub>2</sub>

#### Kaleb A. Blake

Automation of In-Bed Repositioning, Assistance to Sitting, and Transfer for Bedridden Patients via Robot Arms and Strap Interface

# Roberto A. Bolli, Jr.

(September, 2023)

Design and Optimization of a Handle Robot for Providing Bodily Support to Elderly Persons

#### Joseph E. Bonavia

(September, 2023)

A Semi-Analytical Model for Nonlinear Elliptical Inclusions with Spherical Eigenstrains

#### Melissa Brei

(September, 2023)

Technoeconomic Feasibility of Decentralized Desalination in the Navajo Nation

#### Kyle Joseph Buznitsky

Laboratory-Scale Thermal Energy Grid Storage (TEGS) Prototype

# Tess Amanda Callan

Droplet Based Microalgae Photobioreactor for Biofouling Prevention

# Kendrick Dionnuel Cancio

Towards Dynamic Manipulation on an Anthropomorphic Robotic Table Tennis Platform

# Eugenio J. Caraballo Justiniano

(September, 2023) Hydrogel Design Optimization for

Measuring Ultrasound Using Laser Doppler Vibrometry

# **Christopher Pratt Carter**

Directional Recrystallization of an Additively Manufactured Oxide Dispersion-Strengthened Nickel-Base Superalloy

# Nicolas Sebastian Castro

Development of a Biohybrid Tendon Interface for Muscle-Powered Robots

# Rubén Castro Ornelas

Everyday Finger: A Robotic Finger that Meets the Needs of Everyday Interactive Manipulation

# Carlos Eduardo Celeste Junior

Co-Design of Resource Limited Genetic Networks Tuning System Parameters to Satisfy Specifications

# Priya Sara-Elanjikal Chacko

(See also M.B.A., Course XV) Accelerating the Integration of Low-Volume, High-Mix Production Organizations

#### Hao Chen

Applications of Light Reflectance Sensing in the Gastrointestinal Tract with Ingestible Devices for Disease Diagnosis

#### Huaibo Chen

(February, 2024)

Bayesian Inference and Experimental Design of Combustion Kinetic Models

#### **Daniel Ilan Copeland**

Frequency Modulated Continuous Wave Radar Based Fall Risk Monitoring System

#### Juan Fernando Correa Nunez

(See also M.B.A., Course XV) A Data Driven Approach to Uncovering Energy Consumption Reduction Opportunities Within Industrial Operations

# Samuel Aaron Cotey

(See also S.M.(N.A.M.E.), Course II) Al-Ni Nanofilm Powered Miniature Linear Actuator for Medical Devices

# Sarah May Cotey

(See also S.M.(N.A.M.E.), Course II) Hydrodynamic Analysis of Arrays of General Bodies

#### Carmen Mary Sleight Crawford

(See also S.M., Course XXII) Conceptual Design of a Nuclear Microreactor Transportation Cask

#### Alec Ryan Creta

(See also M.B.A., Course XV) A Strategic Framework for Evaluating Next-Generation Technologies in Biocatalysis

#### Isabelle Audra Cunitz

(September, 2023)

Galvanic Displacement Across Single-Layer Graphene

#### **Emily Alice Curran**

(See also S.M.(N.A.M.E.), Course II) Manufacturability Assessment of the Navy Integrated Power and Energy Corridor (NiPEC)

#### **Jonathan Jerald Daus**

(See also Naval E., Course II) Magnetohydrodynamic Induction Pump Jet Propulsor for Undersea Vehicles

#### **Gregory Alexander Davis**

(See also M.B.A., Course XV) Semi-Automatic Nesting and Lean Problem Solving in a High-Mix Low-Volume Production Environment

#### Anita Dey Barsukova

Development of a High-Throughput Cryoprotection Screening Platform for Cell Therapies

## **Branden Thaddeus Francis**

(See also M.B.A., Course XV) Minimizing Total Delivered Cost of Stamped Assemblies Through Sourcing Optimization

#### Levi S. Gershon

Hybrid Induction Drive for a Magnetically Levitated Control Moment Gyroscope

#### Abraham Gebreab Gerzeghier

(See also M.B.A., Course XV) An Environmental Impact Assessment of 3D Printed Medical Devices

# Collin John Goldbach

(September, 2023)

Design of a Market Ready Tractor for Small Farms in Resource Constrained Markets

# **Evan Guang Haas**

(See also M.B.A., Course XV) Optimization of Thermoplastic Composite Manufacturing with Digital Process Intelligence

# Jessica Han

Proximity Sensors for a High-Bandwidth, Low-Latency Robotic Manipulation Object Avoidance Controller

#### Luke Wesley Hardy

Plastic Deformation in Kinematic Couplings: Enhancing Repeatability and Robustness in Precision Engineering

# Heidi Jill Hatteberg

(See also M.B.A., Course XV) Product SKU Analysis, Rationalization, and Optimization

#### Samuel Marcus Heath

(September, 2023) Treating Brackish Groundwater for Irrigation with Selective Electrodialysis & Nanofiltration

#### Vanessa Hernandez-Cruz

Bayesian Relevance for Enhanced Human Robot Collaboration

# Haley O'Hara Higginbotham

Design Exporation for Biological Fluid Sampling Platform

# Nicholas Jay Holmes

(See also M.B.A., Course XV) Scheduling in a High-Mix Low-Volume Job Shop

# **Zhong Qian Huang**

(September, 2023) Assessing Bovine Methane Emissions: Respiratory Simulation and Optical Gas **Imaging Methods** 

# Malek Mortada Ibrahim

Molecular Self-Assembly of Carbon Nanosheets via AFM Nanoprinting

### Urvaksh Danesh Irani

(September, 2023) Design of a Mass-Manufacturable Globally Distributable Passive Prosthetic

# Ahmad Mujtaba Jebran

BIOSENTERO: Bioinspired Soft Enteroscopic Robot for Facilitating Locomotion, Steering and Intervention in the Deep Small Intestine

# Ian Alexander Kleinemolen

(See also M.B.A., Course XV) Inventory Optimization and Simulation Analysis for Supply Chain Disruption **Events** 

# Young Ko

(September, 2023) Modeling and Optimization of Tunable Insulated Hybrid Cooling to Extend Food Shelf-life Using Scalable and Affordable Materials

# Aadi Manish Kothari

(September, 2023) Real-Time Motion Prediction for Efficient Human-Robot Collaboration

### Giho Lee

Geometrically Programmed Nano-Resistors for Ultra-Robust Artificial Neural Network Accelerator

#### Jessica Ellen Lee

(See also M.B.A., Course XV) Leveraging Digital Tools and Analytics for Temperature Management in Cold Chain Systems for Gene Therapies

# Lani Dakyoung Lee

Aging Changes Cell Mechanics and Dynamics with a Backbone of Cytoplasmic Crowding

# Regina Elizabeth Lee

(September, 2023) A LIGO Double Pendulum Suspension Prototype for Reducing Unwanted Cross-Couplings

#### Benjamin Daniel Lerman

(See also M.B.A., Course XV) Techno-Economic Analysis of Line Haul and Switcher Locomotive Propulsion by Diesel, Battery, and Hydrogen Fuel Cell Technologies

### Yizhou Liu

Stability and Dynamics of Resource Consumer Ecosystems

# **Evan Caldwell Long**

(See also M.B.A., Course XV) Secrets of the Aluminati: Bottleneck Assessment within an Aluminum Rolling

# Yuxiang Ma

(September, 2023) Design and Integration of an Underactuated Robotic Finger with Vision-Based Tactile Sensing

#### Daniel Frank Massimino

Additive Manufacturing of Interlocking Glass Masonry Units

# Nicholas Anthony May-Varas

Local and Global Numerical Analysis of a Porous Screen in Free-Stream Flow

#### **Brandon Patrick Meehan**

(See also M.B.A., Course XV) US Green Hydrogen Production: Strategic Approaches to Enhancing Economic Viability and Market Development

# Aditya Mehrotra

A Picture Book for the Roboticist-Why We Should Start with Hardware, and How to Teach so it Sticks

# **Wade Timothy Meyers**

(See also S.M.(N.A.M.E.), Course II) Design and Analysis of a Modular Navy Integrated Power and Energy Corridor Cooling System

# **Peter Gunther Morice**

(September, 2023) Proton Exchange Membrane Electrolysis Applied to the Dehydration of Cow Milk

# **Trevor Murphy**

Capacitor Ladder Circuitry for Improving Electrical Energy Transfer Efficiency to Electromechanical Actuators

#### **Eva Nates**

Using Markerless Motion Capture and Principal Component Analysis to Classify BMX Freestyle Tricks

# Sean Michael Parks

Novel Fluidic-Based Cell Capture and Adhesion Measurement Approach

# Julia Petersen

(February, 2024) Machine Learning and Data-Driven Analysis of Thermal Runaway Characteristics in Lithium-Ion Batteries

# Max William Pierce

(September, 2023) Triad Interactions among Surface Waves Propagating through an Ice Sheet

#### André Milo Pincot

Hemorheological Considerations in the Development of Microfluidic Blood Oxygenation Devices

# Mahmoud M. Ramadan

(September, 2023) (See also S.M., Technology and Policy Program) Methodology for Pyrolysis-Induced Thermal Runaway Analysis in Li-ion **Batteries** 

#### Robyn Corina Richmond

Participatory Methods in Technical Design: Household Biomass Stoves

#### **Brandon Sebastian Rios**

Quantifying Donor-Dependent Morphological and Functional Differences in Healthy and Diseased Primary Human Muscle Cultures

# Jessica Madison Rosendorf

Non-Invasive Measurement and Characterization of Muscle Dynamics in Vivo during Running

# Styliani Rossikopoulou Pappa

(September, 2023) Play Taxonomies: A Toy Index for Product Design

# Christopher John Sarao, Jr.

(See also Naval E., Course II) Design and Modeling of Pneumatic Mechanism for Improved Indirect Liquid Cooling of Shipboard Power Electronics

# Booker B. Schelhaas

Evolving User Needs Identification Through AI Augmented Approaches

# **Charles Byron Seaberg**

(September, 2023) Reticle Stage Actuation Concepts for High Acceleration Trajectories in Next-Generation Photolithography Tools

# Fang Sheng

High-Throughput Bandgap Mapping for Perovskite-Inspired Materials

# Dhyllan Adan Skiba

(February, 2024) Elucidation of Battery Electrolyte Coordination Thermodynamics via Calorimetric and Potentiometric Titrations

### Katherine Charlotte Spaeth

(See also Naval E., Course II) Addressing Challenges of Volume Controlled Cavity Expansion (VCCE) for In-Vivo Tissue Testing

#### Luke Robert Sullivan

Analysis of the Impact of Automaker Strategies on Lithium Price Elasticity Using a Novel Bottom-Up Demand Model

# Anantha Narayanan Suresh Babu

(September, 2023) Stochastic Sea Ice Modeling with the Dynamically Orthogonal Equations

# Mark David Sweet, Jr.

(See also M.B.A., Course XV) Breaking the Mold: Using Automated Design to Accelerate Composites Manufacturing

# Gwendolyn Tsai

Thermal Interaction of Inert Additives in **Energetic Materials** 

# Prajwal Tumkur Mahesh

Method for Photopolymerized 3D Printing of Recyclable Thermoplastic Polymers

# Samuel L. Ubellacker

(September, 2023) Aggressive Aerial Grasping Using a Soft Drone with Onboard Perception

# Ana C. Vendemiatti Haddad

(See also M.B.A., Course XV) Optimizing Integrated Continuous Biomanufacturing Throughput: Resource Constraints and Process Scheduling

# **Daniel Wang**

(February, 2024) Revealing SEI Formation and Evolution at the Li Anode/Liquid Electrolyte Interface in Li-ion Batteries by in situ Fourier Transform Infrared Spectroscopy

# Jason Bradley Webb

(See also Naval E., Course II) Using Multiple Objective Optimization for Autonomous Sailing Vessels

# Jakob Max Wegmueller

Analysis of Multi-Salt Transport and Salt Leakage Pathways in Bipolar Membrane Electrodialysis for Brine Valorization

#### Duo Xu

(September, 2023) Polyethylene-Based Multifunctional Composite Material for Radiation Shielding, Passive Thermoregulation, and In-Situ Fabrication for Space Exploration

#### Oifan Yu

Fabrication-Integrated Design of Soft Elastomeric Systems with Embodied Intelligence

#### Chuwei Zhang

Synthesis of Doped and Gradient Structure NCM811 by Flame-Assisted Spray Pyrolysis

# William Raymond Zunker

(September, 2023) A Mechanically-Derived Contact Model for Adhesive Elastic-Perfectly Plastic Particles

# Master of Science in Naval **Architecture and Marine Engineering**

Course II

Department of Mechanical Engineering

#### Avri Alus

(February, 2024) (See also S.M.(Ocean Eng.), Course II) A Feasibility Study of a Tension-Leg Platform for Hydro-Powered Turbines System and Metocean Data Analysis for Floating Wind Turbine Design

# Samuel Aaron Cotey

(See also S.M., Course II) Al-Ni Nanofilm Powered Miniature Linear Actuator for Medical Devices

# Sarah May Cotey

(See also S.M., Course II) Hydrodynamic Analysis of Arrays of General Bodies

#### **Emily Alice Curran**

(See also S.M., Course II) Manufacturability Assessment of the Navy Integrated Power and Energy Corridor (NiPEC)

# **Wade Timothy Meyers**

(See also S.M., Course II) Design, Analysis and Modeling of a Modular Navy Integrated Power and Energy Corridor Cooling System

# **Jacob Daniel Skimmons**

Applications of Non-Instrusive Load Monitoring Afloat

# Master of Science in Ocean **Engineering**

Course II

Department of Mechanical Engineering

#### Avri Alus

(February, 2024) (See also S.M.(N.A.M.E.), Course II) A Feasibility Study of a Tension-Leg Platform for Hydro-Powered Turbines System and Metocean Data Analysis for Floating Wind Turbine Design

# Annemarie Dapoz

Design, Development, and Testing of an Unmanned Surface Vessel (USV) for Oyster Aquaculture

#### Suparnamaaya Prasad

Investigating Optical Microplastic Detection Methods Using Fluorescent Staining through Nile Red

# Master of Science in Materials Science and Engineering

Course III

Department of Materials Science and Engineering

# **Zachary Kenneth Adams**

Recycling of Rare Earth Magnets with Sulfur Based Chemistries and High Temperature Processing

# Khoi Phuong Dao

(February, 2024) Modeling Compact Non-Volatile Photonic Switching Based on Optical Phase Change Material and Graphene Heater

# Mrigi Munjal

(See also S.M., Technology and Policy Program) Strengthening Value Chains for Developing and Deploying Batteries in the Global South

# Kimaya Prasad Suryarao

Iron Production by Molten Sulfide Electrolysis

# **Alexa Shingming Zammit**

(February, 2024) T2 Characterization of Oil-In-Water **Emulsions for NMR Sensor Applications** 

# Master of Engineering in **Electrical Engineering and Computer Science**

Course VI-P

Department of Electrical Engineering and Computer *Science in conjunction with the* Schwarzman College of Computing

# Pedro Leonardo Acosta De León

Developing an Adaptive Sampling Planner as a Domain-Independent Tool

Scaling Privacy Preserving Payments

# Yaseen S. Alkhafaji

(February, 2024) Fast Partitioning for Distributed Graph Learning Using Multi-Level Label Propagation

# Henry Nils Andersen

(February, 2024) Modeling, Manufacturing, and Experimental Validation of an Electric Machine for Aircraft Propulsion

# Anna A. Arpaci-Dusseau

Accurate and Fast Approximate Graph Mining at Scale

# **Ashay Athalye**

(September, 2023) Learning Neuro-Symbolic Skills for Bilevel Planning

# Claire X. Bao

(See also S.B., Course VI-3) Mitigating Undercutting Attacks: A Study on Mining and Transaction Fee Behavior

### Christian A. Belser

(September, 2023) Comparison of Natural Language Processing Models for Depression Detection in Chatbot Dialogues

#### **Antonio Berrones**

(February, 2024) Detecting Multimodal Behaviors for Neurodegenerative Disease

# George C. Bian

Soccer Last Touch and Automatic Event Detection with Skeletal Tracking Data

# Nicholas R. Bonaker

(September, 2023) A Usability Study of Nomon: A Flexible Interface for Single-Switch Users

#### Krit Boonsiriseth

Performance Engineering of Modular Symbols

### Sam T. Boshar

Genomic Language Models Are All You Need: Exploring Genomic Language Model Protein and RNA Sequence Tasks

# Jeremiah H. Budiman

(February, 2024) Machine-Learning Based Ship Traffic Prediction in the Suez Canal

# Cathy Cai

Machine Learning Methods for Learning Gene Dependencies

# Miranda J. Cai

ScaleGPS: Scalable Graph Parallel Sampling via Data-Centric Performance Engineering

# **Enrique Casillas**

Video Games for Empathy and Understanding Towards Human Migration

# Harshal Chamdal

Comparing Parameter Efficient Finetuning Techniques (PEFT) Using Datamodels

#### Eileen Xin Yu Chau

Improving Causal Inference and Attribute Prediction Through Visual Information

# Anika Cheerla

Planning in Uncertain, Dynamic Environments

# Alice Chen

(See also S.B., Course VI-3) Policy-Based Access Control in Federated Clinical Question Answering

#### Kevin Sun Chen

ICσOS: σOS for Intercloud Environments

# Tiffany Tianyu Chen

(September, 2023)

IlluSonnet: Using Generative AI to Create Illustrations for Sonnets

# Wei-Tung Chen

(September, 2023) RL-SAR: A Robotic System for Fine-Grained RFID Localization using RL-Based Synthetic Aperture Radar

# Phillip I. Cherner

(February, 2024) EMC: A Virtual Reality Platform for Bridging the Climate Science Communication Gap

# Shelley Jeeyoo Choi

Modeling Personalized Changes in Wellbeing Scores with Sleep Components from Wearable Devices

# **Keenly Simon Chuang**

(September, 2023)

Visualization of Probabilistic Programs for Physical Scene Understanding

### Sarah M. Coston

Modulated Frequency Multiplier Inverter

# Jesse Everett Cummings

(See also S.B., Course VI-4) Characterizing Image Recognition Difficulty in Artificial and Biological Visual Processing

# Bilal H. Daqqah

Design and Implementation of an Automated Document Parsing System for Order Processing

### Hope Dargan

(September, 2023)

CS2 Student Programming Performance Prediction and Intervention

# Ray Hiralal Dedhia

(February, 2024)

Preventing CSV Injection Attacks with a Browser Extension

# Yonatan Delelegn

(February, 2024)

Implementing Robust and Efficient Pseudo-Transient Methods for Solving Neural Complementarity Problems in **Julia** 

#### Kaustubh Dighe

Fast Multistage Compilation of Machine Learning Computation Graphs

# Jessica H. Ding

Learning Approximate Pareto Frontiers using Deep Multi-task Transfer Learning

# Samir Droubi

ExoBLAS: Meta-Programming a High-Performance BLAS via Scheduling Automations

# John M. Eastman

Dynamic 3D Reconstruction: Learning Neural Constitutive Laws with Gaussian Splatting

# Vincent K. Fan

(See also S.B., Course XVIII) Using Language Models to Understand Molecular Structures

# **David Shen Fang**

Unsupervised Learning for Generative Scene Editing and Motion

#### Andrew B. Feldman

(February, 2024)

Microarchitecture Categorization and Pre-RTL Analytical Modeling for Sparse Tensor Accelerators

# Matthew R. Feng

Crystal Structure Prediction of Organic Materials with Diffusion-Based Models

# Siwakorn Fuangkawinsombut

Beyond Memorization: Exploring the Dynamics of Grokking in Sparse Neural Networks

# Rujul Gandhi

(September, 2023) Identification of Atomic Propositions in English Instructions for Flexible Translation to Robot Planning Representations

# Trinity Gao

(February, 2024) From Logs to Causal Analysis: A Guided User Interface for Causal Graph Discovery

# Nina R. Gerszberg

Quantifying Gender Bias in Large Language Models: When ChatGPT Becomes a Hiring Manager

# Michael Gilbert

(September, 2023) LoopTree: Enabling Systematic and Flexible Exploration of Fused-Layer

# Fiona J. Gillespie

**Dataflow Accelerators** 

Aquaculture Basket Detection and Tracking for Autonomous Surface Vehicles

# Marlena C. Gomez

(September, 2023) Analysis Driven Shape Design of Parametric Geometry Using B-Splines and Free-Form Deformation

# Rolando A. Gonzalez

(September, 2023)

Inductive-Based DC-DC Bi-Directional Converter for Battery Cell Charge Cycling

# Ishaan Govindarajan

Design and Characterization of an Open-Source, High-Efficiency, Easily-Reconfigurable Switch-Mode Current Driver for Magnetic Resonance Imaging **Applications** 

# Ashley M. Granquist

(See also S.B., Course VI-3) AI-Augmented Interface for Incremental App Development in MIT App Inventor

# Colin T. Greybosh

(February, 2024)

Bringing Computational Modeling into the Classroom with Custom Block-Based Programming Languages in StarLogo Nova

# Alicia X. Guo

(February, 2024)

Exploring the Impact of AI Value Alignment in Collaborative Ideation: Effects on Perception, Ownership, and Output

#### Diptasri Gupta

Acquiring Expertise and Societal Productivity in a World of Artificial Intelligence

# Sejal Gupta

Augmenting Inputs using a Novel Figure-to-Text Pipeline to Assist Visual Language Models in Answering Scientific Domain Queries

# Nicholas F. Gustafson

Standardization of Electronic Component Datasheets to Improve Systematic Data Extraction

#### Adib Hasan

Towards Safe and Versatile Transformer Models: Enhancing Safety, Efficiency, and Domain-Specific Performance

# Michael Lowell Hensgen

Coherency Loss for Hierarchical Time Series Forecasting

# Jay R. Hilton

Enabling the Rust Compiler to Reason about Fork/Join Parallelism via Tapir

#### Kelly P. Ho

(September, 2023) Balancing Memory Efficiency and Accuracy in Spectral-Based Graph Transformers

# Amelia Y. Hu

(See also S.B., Course VI-3) New Parallel Algorithms for Planarity Testing

### Allen Huang

(September, 2023)

Developing a Modular Visual Data Manipulation Framework for Data Exploration in the Consumer Packaged Goods Industry

### Brian R. Huang

(September, 2023)

Adversarial Learned Soups: Neural Network Averaging for Joint Clean and Robust Performance

# Grace Feiyan Huang

(See also S.B., Course VI-3) Twofish: Automatic Edit Cascading for Diagrams

# Irene Yu-Lin Huang

(See also S.B., Course VI-3) Rethinking the Evaluation of Compositional Reasoning for Modern VLMs

# Samuel Ingersoll

(September, 2023)

Analysis of Error in a Model Predictive Irrigation Controller

# Billal Igbal

Volterra System Analysis for an Electrochemical Sensor

# Adam P. Janicki

Utility Libraries for Traversing and Manipulating Tree-like Data Structures with Varying Schemas

# Raiphy Jerez

Novel Topologies for Capacitively Isolated Hybrid Switched Capacitor Converters

# **Emily Jiang**

(See also S.B., Course VI-3) Implementing a Retrieval-Augmented Clinical Question-Answering System over Federated EHR Data

#### Gabriel Jimenez

(See also S.B., Course VI-3) Coordination Service for Cloud Native Architectures

# Zachary D. Johnson

Generation, Detection, and Evaluation of Role-Play Based Jailbreak Attacks in Large Language Models

#### Prabhakar Kafle

Characterizing and Optimizing Networking Database Communication

#### Gabriel A. Kammer

(February, 2024)

Regular Expression-Based Hardware Specification For Verified Model Checking

# Benjamin G. Kang

(See also S.B., Course XVIII) On the Optimality of Several Algorithms on Polynomial Regression of Empicial Bayes Poisson Model

# Sathwik V. Karnik

(September, 2023)

Towards Stable Reinforcement Learning in Non-Episodic Tasks

### Shreya S. Karpoor

Haptic Feedback and Tactile Sensing for Robotic Teleoperation of Fine Manipulation Behaviors

# Moulinrouge F. Kaspar

Human-Centered Performance Metrics for Machine Learning Models: A Comprehensive Test Suite Development

# Seok Hyeon Kim

(February, 2024)

Comparisons in End-to-End Pipeline Designs for Customized Document Information Extraction

# Nadia Noriko Koshima

(September, 2023)

Performing Distance Queries on Social Networks in Sublinear Time

# Timothy H. Kostolansky

Inverse Constitutional AI

#### Nitin Anand Kumar

(See also S.B., Course VI-3) Implementing Polynomial-Time Algorithms for Learning Linear Dynamical Systems

# Michael K. Kuoch

(February, 2024) Probing Post-Transplant Blood System Dynamics with Computational Analysis and Lineage-Tracing

# Nurullah Giray Kuru

Smarter Agents for Agent-Based Models

#### Ethan A. LaBelle

Monte Carlo Tree Search Applications to Neural Theorem Proving

#### **Vedang Lad**

Quantitative Safety for Artificial Intelligence

#### Kelly Thien Lam

Code Summarization and Program Synthesis with Large Language Models

# Raul Alexander Largaespada

(September, 2023)

An Application of Graph of Convex Sets Trajectory Optimization to the Marine Robotics Domain

### Samuel S. Lee

A Hybrid Approach for Key-Value Extraction from Technical Specification Documents

# Matthew D. Leonard

Learning an Embedding for Vehicle Telematics Data

# Alexandra S. Li

(February, 2024)

Learning Carrier Choice Models for Load Pricing in Digital Freight Platforms

#### Jeffery G. Li

On Algorithmic Progress in Data Structures and Approximation Algorithms

# Jerry Y. Li

(See also S.B., Course VI-3) Improving LLM Long Context Understanding via Synthetic Data and Adaptive Compression

# Shengtong Li

Elucidating Targetable Genetic Vulnerabilities in Relapsed/Refractory Diffuse Large B-cell Lymphoma

#### Isaac C. Liao

Automated Tools for Mechanistic Interpretation of Neural Networks

# Joseph David Licht

NBA Sleep Tracking Data Imputation

#### Darren T. Lim

Achieving Secure and Performant Databases with Minimal Resource Overhead

#### Ian J. Limarta

(September, 2023) Serialization and Applications for the Gen Probabilistic Programming Language

#### Cynthia Lin

(February, 2024)

DalSengo: User-Centric Preference Elicitation Strategies for Mitigating Cold Start in Music Recommender Systems

#### Dylan K. Liu

EVA: Automatic Music Generation from Emotion Inputs

### Jason J. Liu

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Tailors: Accelerating Sparse Tensor Algebra by Overbooking Buffer Capacity

# Pradyot Singh Yadav

Design/System Technology Co-Optimization of Gallium Nitride High Electron Mobility Transistors for Next-G 3DIC Heterogeneous Integration of Gallium Nitride and Si CMOS

# Shiqi Yang

Learning Comorbidity and Disease Progression in Electrical Healthcare Record: Comparing Bayesian Uni-Modal with Bayesian Multi-Modal Models

# Yuheng Yang

(February, 2024) Pensieve: Microarchitectural Modeling for Security Evaluation

#### Sameia Zaman

(February, 2024) Kinetic Inductance Characterization of Thin 2H-NbSe2 Superconductor Using Circuit Quantum Electrodynamics

#### Difei Zhang

(February, 2024) Generative and Discriminative Models in Phase Transition Prediction

# Ruiqi Zhang

(September, 2023) Approaching Novel Perovskites Photovoltaic Devices through Machine Learning and Interfacial Engineering

#### Wei Zhang

(February, 2024) Online Auction with Multiple Items

# Zhekai Zhang

(September, 2023) Spatial Accelerator Generation and **Optimization for Tensor Applications** 

# Philipp Zimmer

(February, 2024) (See also S.M., Technology and Policy Program) Advancing Anticipatory Action in

Humanitarian Aid and Development Using Natural Language Processing

### Ane Zuñiga Gurruchaga

Multi-Objective Bayesian Optimization with Asynchronous Batch Selection

# Master of Science in Chemical **Engineering**

Course X

Department of Chemical Engineering

#### Lucas Allen Baston

Production of Bio-based Lactone Monomers for Intrinsically Recyclable Plastics

# Ismael Güereca Valdivia

(See also M.B.A., Course XV) Preemptive Variation Reduction in Biologic Drug Substance Manufacturing

# **Ryan Elliot Hawtof**

(February, 2024) Experimental and Modeling Investigations of Pyrolysis and Polymer Fouling

# Mateusz Marek Wojtaszek

Elucidating Dual Methylcellulose-and-Oil-Nanoemulsion Thermoresponsive Gelation

# Master of Science in Chemical **Engineering Practice**

Course X-A Department of Chemical Engineering

#### Meshal Mansour Alshalan

(February, 2024) Attended School of Chemical Engineering Practice in Lieu of Thesis

# Sayandeep Biswas

(September, 2023) Attended School of Chemical Engineering Practice in Lieu of Thesis

# Richard Benjamin Canty

(February, 2024) (See also Ph.D., Course X) Attended School of Chemical Engineering Practice in Lieu of Thesis

# Yimai Chen

(February, 2024) Attended School of Chemical Engineering Practice in Lieu of Thesis

### Kexin Dai

Attended School of Chemical Engineering Practice in Lieu of Thesis

# Alexis Breanna Dubs

Attended School of Chemical Engineering Practice in Lieu of Thesis

#### Jenna Claire Fromer

(February, 2024) Attended School of Chemical Engineering Practice in Lieu of Thesis

# Krystian Kamil Ganko

Attended School of Chemical Engineering Practice in Lieu of Thesis

# Nicole Marie Howard

(February, 2024) Attended School of Chemical Engineering Practice in Lieu of Thesis

### Fausat Emosioke Isu

(February, 2024) Attended School of Chemical Engineering Practice in Lieu of Thesis

# Laman Natig Jalil

(February, 2024) Attended School of Chemical Engineering Practice in Lieu of Thesis

#### **Robert Paul Jones**

(See also Ph.D., Course X and M.B.A., Course XV) Attended School of Chemical Engineering Practice in Lieu of Thesis

# Fang-Yu Kuo

(February, 2024) Attended School of Chemical Engineering Practice in Lieu of Thesis

# Jun Wen Law

(February, 2024) Attended School of Chemical Engineering Practice in Lieu of Thesis

# Ruoxin Lu

(September, 2023) Attended School of Chemical Engineering Practice in Lieu of Thesis

# Kariana Andrea Moreno Sader

(September, 2023) Attended School of Chemical Engineering Practice in Lieu of Thesis

#### Shakul Pathak

Attended School of Chemical Engineering Practice in Lieu of Thesis

### **Alexander Sananes**

(September, 2023) Attended School of Chemical Engineering Practice in Lieu of Thesis

#### Landon Schofield

Attended School of Chemical Engineering Practice in Lieu of Thesis

#### **Julian Ufert**

Attended School of Chemical Engineering Practice in Lieu of Thesis

# Yuchen Yang

(February, 2024) Attended School of Chemical Engineering Practice in Lieu of Thesis

# Yingzhe Zheng

(September, 2023) Attended School of Chemical Engineering Practice in Lieu of Thesis

# Master of Science in **Aeronautics and Astronautics**

Course XVI

Department of Aeronautics and Astronautics

### Grant Freeman Appel

Low Earth Orbit Stability Analysis Using Monte-Carlo Techniques

#### **Brittany Elise Bishop**

System-Theoretic Process Analysis of a Novel Airborne Laser Communication System

# Sathwik Pandeshwara Chadaga

(September, 2023) Power Failure Cascade Prediction Using Machine Learning

# Yana Charoenboonvivat

Quantitative Modeling of Water Demand to Support a Continuous Human Presence on Mars

# Alissa Lilian Chavalithumrong

A Community-Based Approach for Hub Placements

# Luke Joseph Antonio de Castro

Reinforcement Learning for Minimum Energy Planning with Multi-Fidelity Modeling

# Noam David Eisen

Systems Theoretic Process Analysis as a Practical Tool for Comprehensive Flight Test Hazard Identification

# Andrew J. Fishberg

(February, 2024) Multi-Agent Relative Pose Estimation with Ultra-Wideband Ranging

#### Leonardo Gallo de la Paz

Silicon Photomultipliers as Free Space Optical Communication Sensors

# **Evan Michael Gibney**

Atmospheric Impacts of Hydrogen as an Aviation Fuel

# Wyatt M. Giroux

Modeling and Assessment of Efficiency in Arbitrary Air-Breathing Power Systems

#### Adrien Christian Emile Guenard

Assessment of New Metric System to Regulate NOx Aircraft Emissions at Cruise

# Wenyuan Hou

Oxide Coarsening and Agglomeration During Melt-Based Additive Manufacturing of Dispersion-Strengthened Alloys

# Tara Colleen Housen

Climate Impact Analysis of Global Direct Air Capture Deployment

# Mennatallah Mostafa Mohamed Hus-

(September, 2023) Reduced Order Modeling of a Rocket Engine Turbopump Inducer for Assessment of Pogo Instability

# Shaan Anand Jagani

Methods for Enhancing Ceramic Matrix Composites with Aligned Nanotube Reinforcement

#### Olivier Ng'weno Kigotho

Design of Experiments for Contrail Avoidance

# Courtney Regina Kirkpatrick

(See also S.M., Technology and Policy Program) A Technical and Policy Needs Analysis for Space Traffic Management of Low Lunar Orbit

#### Yuenong Ling

(September, 2023) Wall-Modeled Large-Eddy Simulation Based on Building-Block Flows

# Marcos Adrian Logrono

(February, 2024) A Unified Framework for Characterization of Modes and Spike Routes to Rotating Stall

# Rodrigo Lopes Rose

Limitations of Commercial Aviation Safety Assessment Standards Uncovered in the Wake of the Boeing 737 MAX Accidents

#### Cici Mao

An Approach to Fault Protection Design for the Proposed Mars Sample Return EDL and Ascent Phase Architectures

### Lanie Grace McKinney

Numerical Modeling of Plasma-assisted CO2 Conversion for Mars ISRU

#### Kendra Lynn Middleton

System Identification CFD-Based Reduced-Order Modeling for Hypersonic Vehicles

#### Blanca M. Murga

(See also M.B.A., Course XV) How Complexity Drives Long Lead Times: A Queueing Theory Space Industry Application

# Catherine Joy Breslin Nachtigal

Processes for Fabrication of SU-8 Structures and Sputtered Materials on Porous Glass for Electrospray Thruster Manufacturing

# Joana N. Nikolova

Spacecraft Orbiting and Uncertainty -Planning Surveillance

# Mason Burgon Peterson

Relative Robot Localization and Frame Alignment for Multi-Robot Collaboration

# **Cameron Wesley Pittman**

(September, 2023) Distributed Multi-Agent Decision Making Under Uncertain Communication

# Rudrapatna Vallabh Ramakanth

(February, 2024) Wireless Scheduling for Monitoring Remote Correlated Sources

#### Théo Artur Rulko

On Stress, Strength, and Failure in Asteroids During Planetary Entry

#### Akila Saravanan

Strategic Deployment of Aerial Assets

#### Matthew E. Schofield

Study of Cavity Geometry to Improve Optical Quality of Windows in Hypersonic Flow

# Steven Serrano

(September, 2023) Nanomaterial-Enabled Out-of-Autoclave and Out-of-Oven Manufacturing of Fiber Reinforced Polymer Composites

#### Yuxin Shu

Assessment of Sustainable Aviation Fuel Production Potential Using Crop Allocation Optimization

#### **Shannon Cassidy Smith**

Effect of Distributed Roughness and Surface Curvature on Gortler Vortex Development in High-Hypersonic Flow

# **Tory Daniel Smith**

Sensor Network Tasking for Space Domain Awareness Using Multi-Agent Reinforcement Learning

### Chun Man Oswin So

Safe Nonlinear Control Under Control Constraints via Reachability, Control and Reinforcement Learning

# Michael Daniel Strauch

(September, 2023) AeroCatalyst for DeNOx: A Structural Design and Analysis Approach for a DeNOx Catalyst in Aviation

#### Allison Chang Tsay

(See also M.B.A., Course XV) Framework for Enhancing Decision-Making Capabilities in the Decarbonization of the Airline Industry

# **Benjamin Andrew Waters**

Comparing Just-in-Time Collision Avoidance to Active Debris Removal for Orbital Debris Remediation

# Christopher B. Womack

(February, 2024) (See also S.M., Technology and Policy Program) On the Potential Impact of Curved Meshing for Higher-Order Adaptive Mesh Simulations

# Xiangcheng Xu

Development and Evaluation of Contrail Models

# Ruixiao Yang

Scalable Approaches to Multiple Depot Traveling Salesman Problem in Delivery Systems

### Mingxin Yu

Optimizing Motion Planning for Manipulators through Formal Methodologies: CBF and MILP Perspectives

# Songyuan Zhang

(February, 2024) Learning Stabilizing Controllers for High-Dimensional Unknown Systems and Networked Dynamical Systems

# Master of Engineering in **Biomedical Engineering**

Course XX-P Department of Biological Engineering

# Dana L. Haig

(September, 2023) Combating Maternal Mortality: The Iron Deficient Anemia (IDeA) Diagnostic

# Master of Science in Biological **Engineering**

Course XX Department of Biological Engineering

# Sunho Kevin Chung

(September, 2023) Development of a Multi-Modal Brain Machine Interface and Its Closed-Loop Applications for Elucidating the Functional Behavior of the Whole Brain

# Dylan Cole Hirsch

(September, 2023) Modeling, Simulation, and Ratiometric Control of a Population of Bacteria Engineered with Bistable Circuits

# Master of Science in Nuclear Science and Engineering

Course XXII

Department of Nuclear Science and Engineering

# Cody Wu Chang

(February, 2024)

Studies of Electron Heat Conduction in Magnetized, Shock-Driven Implosions at

### Matthew Dominic Chew Ming Chang

(See also M.B.A., Course XV) Site Selection, Vendor Evaluation, and Deployment of Nuclear Microreactors in Remote Mining Operations

# Matthew H. Clingerman

(September, 2023) Revisiting MHD Generators with HTS Magnets

# Carmen Mary Sleight Crawford

(See also S.M., Course II) Conceptual Design of a Nuclear Microreactor Transportation Cask

### **Calvin James Cummings**

Evaluation of RANS-Based Turbulence Models for the Propagation of Stratified Fronts in Buoyancy-Driven Flow

# Kaylee Marie Cunningham

Modeling UO, and UN Fuel Fission Gas Release Instances in BISON for Microreactor Applications

#### Maurane Garanzini

Feasibility Assessment of Adopting the ADDER Computer Code for the MIT Research Reactor Fuel Management

# Emile Gerard Remi Nestor Germonpré

Feasibility Study for the Use of Nuclear Batteries in Decentralized Hydrogen Production

# Samuel James Karlson

Pulsed Magnetic Imaging of Broad Frequency Fields using Nitrogen Vacancy Centers in Diamond

# Chika Calistus Maduabuchi

Automated Segmentation and Analysis of High-Speed Video Phase-Detection Data for Boiling Heat Transfer Characterization Using U-Net Convolutional Neural Networks and **Uncertainty Quantification** 

# **Daniel Talbott Murphy**

(See also M.B.A., Course XV) Shutdown Dose Rate Modeling for Radiation Requirements Development and Design Trend Analysis in the ARC Fusion Device

#### Eva Viktoria Torinn Ohstrom

(September, 2023) Development and Characterization of Scintillating Fibers with Embedded Photodiodes

# Brianna Noelani Ryan

(See also S.B., Course XXII-ENG) CEnuNS in Natural Zinc Superconductors and its Application for Nuclear Non-Proliferation

# Paul R.M. Seurin

(September, 2023) (See also S.M., Course VI) Assessment of Reinforcement Learning Algorithms for Nuclear Power Plant Fuel Optimization

# Brendan C. Vaughan

(February, 2024) Assessment of Hybrid CFD Turbulence Model, STRUCT-Epsilon, for Thermal Striping Behavior

#### Lorenzo Norman Venneri

(September, 2023) Design for Cost Methodology Applied to High Temperature Gas-Cooled Reactors

# Kate Whiteaker

Quantifying Iodine-129 Environmental Releases and Surface Water Concentrations at Nuclear Fuel Recycling **Facilities** 

# Charlotte I. Wickert

(See also S.B., Course VIII) Non-Neutron Transmutation of Spent

# Master of Applied Science in **Supply Chain Management**

Program in Supply Chain Management

Foyinsola Tolulope Adeyemi

Cristina Aguirre Algara

Nikolay Aristov

Andres Arturo Ayala Mennechey

Kavitha Balakumar

Shantanu Sunil Baviskar

Jean Herode Bertrand

Fabrizio Umberto Boaron

Oscar Bonet Olano

Diego Alonso Campos Durand

Maria de Loreto Cantu Villarreal

Alex Michael Carroll

Chu Cho

**Zhan Ding** 

**Matthias Eder** 

Troy Isaac Egar

José Arturo Espinosa Salas

Firanza Fadilla

Perry McCants Castleman Falk

Yuan Fang

Mohamed Lotfi Gaafar

Stephanie Gabriela Gomez Prieto

Fan Gruener

Hansika Gupta

Santiago Hernandez Santiago Pérez Olvera

Ardi Prasetya Hernawan Omar Fabian Pineda Carrillo, Sr.

Chia Hsu Thiago Pinheiro Faury

Shane Huisman Mayank Raj

Miguel Angel Iturralde Jaramillo Yaniliz Rivera Valentin

Kevin-Alexandre Jacquot Ryan Justin Anthony Rocke

Arjun Kapoor Mateo Sebastian Rojas

Bobby Kheny Luis Felipe Bittencourt de Brito Sena

Dhorn Kosolpatanadurong Alexander Johnathon Shaw

Nilay Kumar Niraja Shukla

Ravi Kumar Kalyan Prasanna Simha

Nimisha Shaji Kunnathu Seyed Mostafa Taheri

Ziyan Li Douglas Tjokrosetio

Yu-Hsin Lin Mohamed Amine Tmimi

Yijing (Mavis) Lu Chi Sheng Tseng

Maria Lucchi Turgay Turkmen

Patricia Machado Andrade Drake E. Turnquist

Elizabeth Rachel Marchosky Claire Urbi

Julia Grace Mionis Alex Meier Varnhagen

Shayna M. Moliver Ria Verma

Jospin Kalumire Mubaki Ping Wang

Anirudh Narula Joshua Andrew Weston

Oscar Luis Nieto Michelis Yan Xu

Justin O'Driscoll Lili Zhang

Matías Andrés Opazo Gezan Linyi Zhang

Seyeon Park Ruiming Zhang

# Wenchao Zhang

Master of Science in

**Engineering and Management** 

Program in System Design and Management

Mridula Prakash

(February, 2024)

Role of Generative AI tools (GAITs) in Software Development Life Cycle

(SDLC)- Waterfall Model

Samuel Alan Abel

(September, 2023)

Designing an Optimal Portfolio of Competing Fuels Under Uncertainty

Sowmya Addanki

Dynamics of Corporate Entrepreneurship in Technology Companies: A Study of Strategic Practices and Governing Frameworks Shaping Entrepreneurial

Ecosystems

Eden Newman Adler

(See also S.M., Course VI) Modeling the Affect of "Aha!" Moments to Detect the Moment of Learning

Yousif Fayez AlSadah

(September, 2023)

Industry Platforms: Case Studies to Measure Platform Capabilities for US

Unicorns

Warren Vanner Anderson

(September, 2023)

Enhancing Innovation in Technical Teams: Adapting Systems Architecture for Use on a Human-Centered Design

Team

Tomonoshin Aoki

How Pharmaceutical Companies Utilize Platform Strategy: A Study of the COVID-19 mRNA Vaccine Development

Naofumi Aoshima

Exploration of the Future Enterprise System Architecture of the Japanese-Origin High-Speed Railway in Texas

# Roy Asher

Introducing AI as a Team Member During the Fuzzy Front End of New Product Introduction Projects in the Medical Device Industry: An Experimental Design

# John Richard Beilstein

(February, 2024) A Proposed Framework to Facilitate System Engineering, Requirement Development, and Regulatory Document Writing Using Natural Language Processing (NLP) Models.

### Jorge Andrés Besa Lehmann

(September, 2023)

How to Select Chargers and Batteries for Electric-Bus Transit Systems in Large Cities? A Comparison of Lifecycle Costs and Operational Reliability for Different Configurations Using the Chicago Bus Network as a Case Study

# Michael Christopher Case

(February, 2024)

An Organizational Network Analysis of the Sprawling U.S. Department of Defense Innovation Ecosystem

# **Corinne Shannon Cochran**

(September, 2023)

Systems Review of Membrane Technology for Refinery Hydrocarbon Separations

# Clay Allen Coffey

(September, 2023)

Small Modular Reactor Technology for Industrial Heat and Power: Selection Techniques and Implementation Strategies for Real-World Use Cases Using Systems-Based Approaches

# **Justin Dargis**

(September, 2023)

Architecting Upstream Oil and Gas Enterprise for Innovation

# **Brooke Brininstool DiMartino**

(September, 2023)

Direct Air Capture (DAC) as a Carbon Removal Solution: Analyzing Scale-Up, Cost Reduction, and Pathways for Acceleration

#### Mart Duitemeijer

Techno-Economic Analysis of Fusion Energy in the European Electricity Market

#### Richard Dulce II

A Systems Dynamics Approach to U.S. Army Talent Management

#### Marcelle Denise Durrenberger

A System Exploration of Startup Decision Heuristics

# **Kyle Lee Ensley**

(September, 2023)

Coast Guard Aviation & the Assignment Problem: An Auction Model to Allocate the Future 'All-Jayhawk' Fleet

# Fahim Faruque

System Interfaces to Facilitate Follow-Up Pharmaceutical Care in the United States

# Yosuke Fujii

Integrated Business and Technical System Modeling of Rail Projects with **Uncertainty Analysis** 

#### Madeleine Alise Golison

A Data Driven Approach to the Attrition of Women in Software Engineering

#### Nicholas Ciro Gonzalez

(September, 2023)

A Framework for Evaluation of Technology-Based Innovation Project Proposals for Implementation Using a System Approach

# David Bernardo Gottdiener Islas

Towards a New Affordable Housing Approach: A System-Thinking Criteria Set to Assess Quality

# John Martin Hamel

A Systems Approach To Low-Cost, Modular Autonomous Surface Vehicle and Autonomous Underwater Vehicle Integration

# Aaron C. Hanenkratt

Project Management for Research and Development

# Yizheng He

(September, 2023)

Evaluating SigmaOS with Kubernetes for Orchestrating Microservice and Serverless Applications

#### Brian Herrera

(February, 2024)

Cloud-Native Applications and Their Role in Supporting Agile Hardware Development

# Thinh Bao Hoang

(See also Naval E., Course II) Exploring Trade-Offs and Emergent Properties of Heterogeneous Swarms of Maritime Robot Systems through Empirical Analysis and Application-**Driven Experiments** 

# Chen Huang

(February, 2024)

Enhancing Business School Engagement Through Gamified Experience in Non-Pedagogical Contexts - A Human-Centered Design Approach

#### Rei Iijima

Technological Development Trajectories of the Component Technologies in Battery Electric Vehicles

# Daniel Jacobs Luengo

Harnessing Intelligent Audio-Gesture Interfaces for Wearables as a Sleep Aid

# Anukriti Jain

Analysis of Dark Patterns in UI/UX Elements of Digital Platforms

# Mumin Khan

A Data-Driven Approach to Comparing Battery Electric Vehicle Architectures

# Hope Marie Klukovich

(September, 2023)

Facilitating Adoption of Continuous Manufacturing Platforms in the Pharmaceutical Industry

# Jacky Levy Kotane

Telco 5G and Non-Terrestrial Networks: an Architecture Trade Analysis to Select Solutions to Support Socio-Technical Needs in South Africa

# Eduardo Luis Latouche

Overcoming Challenges in Cellular Therapies: A Systems Engineering Approach for Equitable Access

#### Paola Andrea León Alarcón

(February, 2024)

Gauging the Efficiency and Efficacy of Timed Coding Assessments in Software Engineering Recruitment

# **Ethan Richard Lindstrom**

(September, 2023)

Feasibility of a Human Capital Digital

#### Mun Kit Kenny Lum

(September, 2023)

System Dynamic Analysis to Evaluate the Socio-Economic Impact of the Energy Transition of Singapore to Achieve Net Zero Emissions by 2050

#### Chao-Lun Mai

(See also S.M., Course VI) Identification of the Steel Decarbonization Options for Different Regions

# Carlos Edoardo Melgarejo Oviedo

The Vehicle Platform Architecting Process: Will Model Based Systems Engineering Help Organizations with the Architectural Transition from Ice to Battery Power?

# Noemie Brigitte Midrez

(February, 2024)

System Approach to Investigate
Environmental Footprint and Cost
Tradeoffs in Additive Manufacturing

# Duncan MacKenzie Miller

(February, 2024)

Data-Driven Space Economy Investment Strategy Through an Updated Commercial Space Technology Roadmap (CSTR)

# Mariam Momenzadeh

Study and Analysis of the Evolution of Knee Arthroplasty Surgery Through its Technological Innovation

#### Yuichiro Monden

Firm Dynamics Under Industrial Policy

#### Jonathan Robert Monnig

(September, 2023)

Queueing System Analysis in Oil and Gas Abandonment Operations

# Holly Christine Greenberg Nihipali

(September, 2023)

Innovation Ecosystems in Geographically-Remote and Resource-Limited Regions by including Indigenous Populations and Ancestral Science, Knowledge, and Practices: Intentional Development in the Pacific Islands of Hawai'i, Fiji, and New Zealand

### John Scudder Nothacker

Sensor Evaluation for a Low Cost Autonomous Surface Vehicle

# Kentaro Numa

Assessing Photoelectric Fusion Technologies: Market Potential and Strategic Insights from NTT's IOWN Case

# John Michael Nurthen II

(September, 2023)

Cybersecurity Risk Assessment Matrix (CRAM): A System-Theoretic Approach to Balancing Operational and Cybersecurity Risk Management of Transient Cyber Assets (TCA) in the Maintenance of Operational Technology

# Javier Adrian Ocampo

(See also S.M., Course VI) A Human-Computer Interaction Driven Inquiry into New Trust Signals that Adequately Map to the Risk of Interactions on the Web

# **Edgar Dos Santos Paca**

(September, 2023)

Assessing the Technical Feasibility of Converting U.S. Salt Domes Used for Natural Gas Storage into Hydrogen Storage Facilities

# **Tanner Jordan Papenfuss**

(September, 2023)

Organizational Data Journey

# **Drake Michael Platenberg**

(February, 2024)

Characterizing Naval Ship Power and Energy System Metrics through Modeling and Analysis

# Daniel Eduardo Reveron

Evaluating Network Scalability of Metaverse-Applicable Use Cases

# **Daniel Herndon Richards**

Clinical Cost-Effectiveness as a Novel Metric for Steering Emerging Medical Technology

# Prem Sagar

(February, 2024)

Exploring the Use of ChatGPT as a Self-Learning Tool for Arduino Coding & Circuit Building for Artists & Designers

# Zachary Keith Schmitz

(See also S.M., Course VI)
The Impact of Thermostat Automation
and Retail Rate Designs on Cooling and
Heating Flexibility: Balancing Consumer
Preferences and an Efficient Grid

# Francisco Sepulveda Morales

Developing an Intelligent Tutoring Systems (ITS) Based on Error-Based Cognitive Architecture for Extend Reality Hands-On Training

# Maryam Afzaal Shamsie

"Biomarkers" for Translational Success in Neurodegenerative Diseases: A Comparative Analysis of the Research to Practice Trends in Breast Cancer and ALS to Identify Systematic Indicators of Translational Success

#### Leroy Kudakwashe Sibanda

(February, 2024)

(See also S.M., Course VI)
Towards Implementing Modular
Nuclear Reactor Systems for Developing
Countries

# Amandeep Singh

Effective Messaging for Tackling NIMBY to Accelerate Decarbonization

# Anup Sreekumar

System Dynamics Modeling of Organizational Culture Transformation: a Study of the Organizational and Technical Factors That Affect the Implementation of Toyota Production System in Organizations.

# Azfar Sulaiman

(See also S.M., Course VI) Blueprinting AI Economics: Cost Assessment Framework for Non-Technical Stakeholders to Navigate Key Aspects in Prompt Engineering, Prompt Automation, and Fine-Tuning LLMs

# Kensuke Suzuki

Effective Assignment of Construction Managers to Construction Sites

# Stephen Michael Tainter

(September, 2023) Enhancing the Quality and Breadth of Carbon Reduction Project Ideation and Roadmapping for Corporations

# Leandra Tejedor

(See also S.M., Course VI) Stylizing 3D Models With Generative AI for Fabrication

#### Florence Fernandez Thatcher

From Conception to Connection: A Systematic Approach to Integrating Remote Patient Monitoring in Fertility Management

#### Gabriela Alexa Torres

(February, 2024) A Comparison of Privacy Requirements from the User Perspective in a Wellness

# Chetan Vinayak Vidhate

Measuring the Product Configuration Complexity and Cost for Mass-Customization of Automobiles

# David Villegas Gonzalez

(February, 2024) Lean Technology Roadmapping: Assessing the Value Path of Existing Approaches and Exploring Process Improvements

#### Yutaro Watanabe

Designing the Enterprise Architecture of an Innovative Plant Engineering Company

# Dian Wen

Enhancing User Data Privacy and Trust through the Implementation of the OTrace Protocol: Development, Challenges, and Impact Assessment

# Hanna Won

(February, 2024) Integrated Model of a Floating Nuclear System for Hydrogen and Ammonia Production

#### Bryan Sheungwoo Yang

(September, 2023)

A Systems Approach to Understanding Organizational Structure and Employee Development in Tech Sector

# Ray-Pern Yau

(February, 2024) How Can Impact Investors Enable Systems Change? Exploring the Theory and Practice of an Emerging Field

# Ayako Yukawa

Architecting Absorptive Capacity: Systems Framework for Open Innovation in Japanese Enterprises

#### Nadine Adel Ahmad Zaza

Integrating Futures: 'Culture Crates' Hybrid Digital-Analog Methodology in the Advancement of Cultural Education and Preservation

#### Zhao Zhang

(September, 2023) Mitigating Investment Risks in Nature-Based Solutions: Strategies and Applications for Sustainable Project Development

#### Yushi Zhao

(September, 2023) Subsurface Digital Twin and Emergence

#### Bingnan Zhou

An Approach to Developing a More Elastic Software Organization Architecture Through Building Innovation Capability and Managing

# Master of Science in Health Sciences and Technology

Program in Health Sciences and Technology

# Noah Stanley Warner

A Framework for Detection and Observation of Radiation Chemistry Species on an Mr-Linac

# Master of Science in **Transportation**

### McKenzie Ross Humann

Course I

(See also M.C.P., Course XI) From Pilots to Stable Services: Documenting the Rise and Diversity of Microtransit in the U.S.

#### **Devin Camille Wilkins**

Course XI (September, 2023) Towards Regional Rail: Strategies for Service Transformation on the Worcester/ Framingham Line

#### Yen-Chu Wu

Course XI

Optimizing In-Garage Charging Schedules to Maximize Electrified Mileage for Electric Bus Fleets

# **Naval Engineer**

Course II

Department of Mechanical Engineering

# Asia Mon'a Allison

(See also S.M., Course II) Design and Modeling of Offshore Nuclear Platform Fuel and Transfer System

# Jonathan Jerald Daus

(See also S.M., Course II) Magnetohydrodynamic Induction Pump Jet Propulsor for Undersea Vehicles

#### **Christos Gkiokas**

(See also S.M., Course VI) Innovative Floating Wind Turbine with Synthetic Mooring System and Feasibility Analysis of a Solar-Wind-Battery Hybrid System

# Thinh Bao Hoang

(See also S.M., Engineering and Manage-**Exploring Trade-Offs and Emergent** Properties of Heterogeneous Swarms of Maritime Robot Systems through Empirical Analysis and Application-**Driven Experiments** 

# Mikala Nikole Molina

(See also S.M., Course VI) Methods for Testing COLREGS Compliance in Autonomous Surface Vessels

# Christopher John Sarao, Jr.

(See also S.M., Course II) Design and Modeling of Pneumatic Mechanism for Improved Indirect Liquid Cooling of Shipboard Power Electronics

# Katherine Charlotte Spaeth

(See also S.M., Course II) Addressing Challenges of Volume Controlled Cavity Expansion (VCCE) for In-Vivo Tissue Testing

# Jason Bradley Webb

(See also S.M., Course II) Using Multiple Objective Optimization for Autonomous Sailing Vessels

#### **Heather Lynn Willis**

(See also S.M., Course VI) Analysis of Data from the U.S. Shipbuilding Industry and Application to Improve Performance Metrics

# **Electrical Engineer**

Course VI

Department of Electrical Engineering and Computer Science

#### **Thomas Charles Krause**

(February, 2024) Sensing for Electromechanical Systems (S.M. thesis September 2021)

# Aaron William Langham

An Enhanced Signal Processing Toolbox for Electrical Energy Monitoring

# Goran Živanović

(February, 2024) ExoSpotter: Few Shot Relevance Feedback For Learning High Recall **Exoplanet Search** 

# **Engineer in Computer Science**

Course VI

Department of Electrical Engineering and Computer Science

# Samuel DeLaughter

(September, 2023) (See also Ph.D., Course VI) A Comparative Analysis of Denial of Service Vulnerabilities in Network Protocols (S.M. thesis, February 2019)

# Master of Engineering in Computer Science, Economics, and Data Science

Course VI-14

Department of Electrical Engineering and Computer Science in conjunction with the Schwarzman College of Computing

### Jordan A. Billings

Using Machine Learning to Differentiate Set Pieces in Football via Tracking Data

#### Jason D. Lee

Decoding the Depths: Developing a Whale-Click Separator for Predictive Speaker Recognition in Sperm Whale Conversations

#### Rupert Michael Li

(See also S.B., Course XVIII) Semidefinite Programming Bounds for Codes in Complex Projective Space

#### Alice Martynova

Modern Change at Charter Schools: New Evidence from the Noble Charter Network

#### Matthew Fellows Nay

Decentralized Social Networking Protocol (DSNP) and User Empowerment: An Analysis of Online Identity Ownership, Data Privacy, and Comparative Assessment with Other Decentralized Protocols

# Christopher William Noga

Estimating Residential ESG Preferences

# Kirsi K. Rajagopal

Equity Considerations in Bus Transportation Electrification at the Depot Level

# Karyn N. Real

Developing a Machine Learning Based Automated Screening Tool to Diagnose Silent Heart Attacks in Resource-Constrained Settings

# David M. Vapnek

The Value of Variance in Major League Baseball

# Nina Y. Wang

Investigating the Structural Evolution of Ad Design: Computational Analysis of Information Content and Interactivity in

# Caroline C. Warren

A Multi-Industry Exploration of Model Flexibility and Performance Trade-Offs in the Era of Artificial Intelligence and **Advanced Computing** 

# Isaac S. Zhang

Computing Equilibria in Colonel Blotto by Applying Counterfactual Regret Minimization Using a Layered Graph Representation

### Stan Zhang

Equal Subset Sum Problem and its

# Tianyuan Zheng

The Effects of Mandatory Advanced Placement Curriculum Policies on Achievement, Graduation, and College Enrollment

# SCHOOL OF HUMANITIES, ARTS, AND SOCIAL SCIENCES

Master of Applied Science in Data, Economics, and **Development Policy** 

Course XIV Department of Economics

Shotaro Beppu (September, 2023)

Barbara de Alencar Pitombeira (September, 2023)

Krishna Bhaskar Devarakonda (September, 2023)

Abiel Abdonel Devilme (September, 2023)

Raymundo Duran Lozano (February, 2024)

**Donald James Eastwood** (September, 2023)

Chee Wee Koh (September, 2023)

Sitara Kumbale (September, 2023)

Ayesha Imran Malik (September, 2023)

Sofía Martínez Gálvez (September, 2023)

Gevorg Minasyan (September, 2023)

Erich Natsubori Sato (September, 2023)

**Teddy Onserio** (September, 2023)

Neil Devesh Patel (September, 2023)

Luisa Pereira Monteiro Proenca Cerca (September, 2023)

Crystal Jing Qian (September, 2023)

Wan Yun Tan (September, 2023)

Hidenobu Tokuda (September, 2023)

Rohit Tripathi (September, 2023)

Ignacio Alejandro Urrea Bordones (September, 2023)

Celine Wuyts (September, 2023)

# Master of Science in Political Science

Course XVII Department of Political Science

# Nicholas Wolf Ackert

(September, 2023) Explaining Middle Power Military Intervention: Australia's Use of Force in Maritime Southeast Asia and the South Pacific

# Liberty R. Ladd

(See also S.B., Course II) Effects of Ranked Choice Voting and Run-off Elections on Voter Participation

# Ziyi Wu

Outsiders in Media: Sense of Foreignness and the Support of Censorship in China

# Suyeol Yun

(February, 2024) Decoding Congressional Stock Trades: An Industry and Committee-Focused Analysis with Graph Neural Network and Large Language Model

# Master of Science in Science Writing

Course XXIW Program in Writing and Humanistic Studies

Daelin Simone Shelton Brown

(September, 2023) Keeping New Orleans Afloat

# Elizabeth Gamillo

(September, 2023) Tuning into the Planet: Scientists are Collecting and Archiving Soundscapes before They Disappear

# Allison Paige Guy

(September, 2023) Ecosystem Reboot: How Scientists are Building an Inside-Out Noah's Ark for Florida's Vanished Coral Reefs

### Phie Gravson Jacobs

(September, 2023) Abortion Beyond the Binary: Transgender People Have Historically Been Left Out of Abortion and Reproductive Health Research. Now, Two Researchers Are Bringing Their Experiences to Light

# Vishva Nalamalapu

(September, 2023) The Sleepless Forest Observers

# Abdullahi Tsanni Nuhu

(September, 2023) The Consumer of Humans

# William Burgoyne von Herff

(September, 2023) Under Their Own Laws: How the Kitasoo/Xai'xais First Nation Created a New Marine Protected Area — without the Federal Government's Approval

# Master of Science in Science, Technology, and Society

Course STS Program in Science, Technology, and Society

# Zachary John Thomas La Rock

(September, 2023) Chemistry in a New Key. Surplus, Soy, and the History of Sustainable Enterprise in the United States, 1934-1950

# SLOAN SCHOOL OF MANAGEMENT

Renan Fleury Pereira Cunha Hyewon Im **Master of Business Administration** Safiyah Dahbi Skali Hyedong Jeong Course XV-A (Sloan Fellows) Sloan School of Management Erin Melissa Dawicki Hojin Jung Moaz Afzal Pablo Espuela Martin Minchul Kang Yael Agmon Grant Miller Karshner Michelle Elizabeth Ewy Omar Abdulaziz Alblehed Franck Kouakou Ola Fade Masayuki Kawahashi Feras ALDebasi Mattia Emidio Filiaci Mark Reed Ketchum, Jr. Alana Alencar Coelho Jocelyn Anne Foulke Sun Young Kim Fahad Saleh Alismail Swati Garg Jeffrey Kenneth Knauer Ayobami Olumide Aluko Alexander Garifulin Netta Koren Sergali Amirbekov Sheila Genesine Dada Atsunori Kushiyama Ryunosuke Ando Ker Wee Goh Talgat Kutbay Jian Wei Ang Cesar Gerardo Gomez Aldape Fernando José Lanús Raafet Azzouz Gerardo Andrés Guerra Quintanilla Sang Yeup Lee Artur Bardera Echeverria Patrick Ondracek Lemouche Andres Yoon-Jung Ha Chun Laura Elizabeth Bautista Pérez William Grant Charles Harding Liang Liao Amrita Bhattacharya Masahiro Hayashi Hun Pin Lim Nadine Amaotiwaa Boakye Joesph Hayut Yanling Liu Offline Reward Learning from Human Nasiru Braimah Demonstrations and Feedback: A Linear Leonardo Magalhaes Lott Programming Approach Rodrigo Casarin de Oliveira Rajit Malhotra Joseph A. Hollingsworth III **Tegan Louise Case** Christopher Paul David Mamaux Sarah Taimoon Zaida Hosein Bryan Ken-Chin Chao Muhammad Najib Masdan Matthew Dean Howard Zhi Chen Brian McNaboe **Bifeng Huang** Natasha Nyasha Chifamba Jackson Robert McWade Xiaohong Huang Diana Choi Kim Patrick Anguzu Munduga Zaher Ibrahim

Javad-ul-Mutayyab Mushtaq Juan Pablo Santos Joanna K. Avery

Barbara Birungi Mutabazi Andrea Sartor Benedict Johannes Karl Bachstein

Luis David Sena Fañas Kishanthan Nadarajah Juan Pablo Barros Rubio

Omri Yitzhak Nahmias Wonhee Seo Alyssa Paige Beatty

Hyacinthe Naré Noga Shachar Schleyer Saloni Samir Behl

Windy Natriavi Caio Silva Barbosa **Mohamed Karim Bennis** 

Umbereen Sultana Nehal Theodore Alton Blaine Woohyong Song

Masahiko Ogawa Yuki Suga Howard Warren Buffett

Taísa Oliveira Maciel Hiromasa Suzuki Bonita Jean Burke

Rie Tomita Brenda Bi Hui Ong **Courtney Evans Caswell** 

Oghenemaero Ufuoma Onwah Victoria Eugenia Tostado Bringas Jun Chen

Deepak Joseph Parayanken Ikechukwu Chima Ume Juan E. Clariond

Albert Pek Alberto Souza Vieira **Emily Caples Clark** 

**Lawrence Petit-Frere** Gabriela Viera Alegria M Alicia Temple Clark

Hee Yau Phoon **Xuejing Wang** Charles John Clarkson

Rebeca Nicolas Pinheiro Jinhua Zhang Jaime Coronado Barbosa

(February, 2024)

Digital Transformation in Sales and **Andres Pombo** Gad Zuaretz

Operations Planning

Lea Gabrielle Potts **Master of Business** Jaime Correal

**Administration** 

Erika Viviana Ramirez Racquel Belen Cross Course XV-E (Executive)

Sloan School of Management Abhishek Ravindra

**Broghan Meredith Cully** Hassan Ajwad Abbas Tomas Rivadeneira Hurtado

Matthew Adam DePaolis

Anthony Stephen Roa Renato Anthony DePaolis II

Venkatesh Alagarswamy Govindaraj

Tunca Alikaya Lilian Cléa Rodrigues Alves **Ryan James Doherty** 

Mohamad Adnan Alkhouli Adi Adina Rubinstein Farida Elif Douiri

Micaela Brandy Alvarez Gaurav Kumar Saini

**Geoffrey Robert Downing** Ilya Leonidovich Aranovich

Manuel Alejandro Sánchez Castro Richard Drazin

Karolina Athanasopoulou

Stanislav Petrenko Paul Francis Farrell, Jr Patrick Wayne Little

Mark S. Franco Humberto Lopez Mata Narin Phol

Carolina Piras de Oliveira Thiago Amaral Gaspar Karen Luu

Ghassan Richard Ghorayeb Karim Sami Malek Jesús Alberto Quiñones Flores

Kohei Hasegawa Dawn Marie Marchand Rodrigo Rogelio Ramos

Chieko Jocelyn Hayashi Fortune H. Masawi **Elder Recinos** 

**Connor Patrick Henley** Eric Bradly Redmond Mo McNally

Paul J. Hlivko Erin Kathleen McPike **Daniel Conor Richert** 

Thomas Hudner Howd Jennifer Ulanda Miles-Thomas Eric Harmon Rosenkranz

Rumna Mishra Aleksandra Safarova Alberto Enrique Huasasquiche Montoya

Scharukh M. Jalisi Colby Lauren Moore Nishank Saxena

Heather S. Jankins Conrado Honorato de Morais Michael Patrick Sechrist

Hemanth Kaligotla Eleanor Elizabeth Morgan Samy Samir Sidhom

Muralidharan Kannan Kristy Morse Vincent Sigismondo

Michaela Rita Kaufmann **Timothy Paul Mui** Jeffrey Singer

Aiman Khan Subrahmanya Ravi Kiran Mullapudi Malagalage Don Ehantha Sirisena

Aaron Michael Kilinski Dilip Nataraj Arvind Srinivasamoorthy

HyungJoo Kim Manish Nigam Tyler E. Staal

Wade Austin Oliver Tiffany Sullivan Soujanya Kolla

Kalyan Chakravarthy Koneru Omar Jacques Omran **Prasad Sumant** 

Delfi Krishna Weiyi Sun Tilak P. Palanisamy

Swetha Krishnan Andrew Isaac Pankin Rui Tang

**Todd Lyndon Kurth** Pankaj V. Paranjpe Flavius Mihai Toma

**Neil Fredrick Larson** Patrick Lee Parker Franco J. Torres

Katherine M. Ledoux Breana Patel Maria de los Angeles Torres-Castillo

Gabriel Oscar Peláez Carbone Vanessa Lee Ryan Cosmore Troy Jonathan Edward Upton Marcelo Oliveira Aguiar McCoy Stephen Bean (See also S.M., Course II) Economic Comparison of Solar Racking Felipe Eduardo Valdes Diaz **Tobias Fabian Beck** Options to Decarbonize Florida Power & Light's System Manas Venepally Andrea Laura Bejarano Mohd Ahmad Melissa Vettraino Bachstein Marko Bejatovic Yu Aizawa Anna Vidyakina Javier Alejandro Bello Medina Maleek Ayoola Akeju Juan Diego Villegas **Isabel Paterno Benares** Amos Adu Akoto Andrés Besa Bandeira Thomas Westerling-Bui Nicolás Octavio Hermenegildo Al-Lisandra Evelyn Wilmott bers-Schönberg Shivam Bhakta (See also S.M., Course I) Sustainability Analytics-Lowering Glenn Andrew Wilson Abdullah Abdulrahman Aldhalaan Emissions with Operational Efficiency System Dynamics of Carbon Capture and Storage Alyssa M. Alexander Kirthana Bhat Joshua Edward Witkowski Amjad Alhumaidi Prianka Bhatia Kwan Yee Queenie Wong Ibrahim Saud I Alibrahim Ashwin Bhide Xin Tong Wu Tracy Joseph Allen, Jr. Nur Izzat Aiman Bin Nur Aziz (See also M.C.P., Course XI) Shan Xing Stephanie Alexandra Blair Kaitlyn Nicole Alsup **Timothy Matlack Yarnall Timothy Robert Blomfield** Jose Maria Amich Yahia Zemoura Naomi Paige Bolze Juan Pablo Armas Saenz **Master of Business** Mathieu Bourguignon Alberto Arrighi Administration Course XV Sebastien William Boyer Julianna Rose Aucoin Sloan School of Management **Christian Pearl Bradley** Ibitola Ayodeji Ayorinde Mohamed Osman Abdalla Leighton Anne Braunstein Irina Denise Baek Omar Abouzid Eugene M. Breaux III Maria Teresita Baeza Soffia Haben Yemane Abraha Ellen Marie Bredenkoetter Saman Baghestani Alanoud Abulhamayel Raul Manuel Briceno Brignole Taniya Bajaj Alexander Adekunle Adelabu (See also M.C.P., Course XI) (See also S.M., Course I) **Brendan Barron** Alinna Anuzis Brown Siddhant Agrawal **Dhruv Bathla** (See also S.M., Course I) Nicholas Connor Brown Digital Twin-Driven Supply Chain

Samantha Michelle Bautista

Enhancement to Support Direct-to-

Consumer Growth

Huong Thu Bui

Kara Burns Namit Paresh Choksi Pablo De la Fuente Gonzalez **Brandon Charles Busuito Eric Chow** Margarida Tello da Gama Leao Ponce de Sousa Robin Cambridge Butler Michael Christian Marta Dern Simon Yuqing Cang **Dawon Chung** Jeanne Camille Desriac **Daniel Jacob Capelin** Leo Francis Cohen **Tynan Bourne Dewes** Giuseppe Edoardo Capolino Rebecca Lyn Cohen (See also S.M., Course I) Ignacio Diez de Rivera de Solis Oil & Gas Regional Operations Erica Irene Cappon Electrification Estimation Jieqing Jaclyn Ding (February, 2024) Diego Jose Carrasquillo Martinez **Austin Kristopher Cole** (See also M.C.P., Course XI) Sophia Isabel Diserio Juan Felipe Castaño Domingo Jose Concha, Sr. Grace Klein Donahoe Regina Ceballos Mondragon (See also S.M., Course VI) **Taylor Phelan Conley** Improving Supply Chain Resiliency **Brian Joseph Dougherty** through Solar Panel Delivery Optimization Juan Fernando Correa Nunez Olivier Duler (See also S.M., Course II) A Data Driven Approach to Uncovering Priya Sara-Elanjikal Chacko Juan José Durán Londoño **Energy Consumption Reduction** (See also S.M., Course II) Opportunities Within Industrial Accelerating the Integration of Operations **Cameron Dashaun Easley** Low-Volume, High-Mix Production Organizations Giacomo Corti Jack Zhou Easley (See also S.M., Course I) **Gracy Chen** Alec Ryan Creta Engineering Strategy for Reshoring (See also S.M., Course II) Jackie Chen A Strategic Framework for Evaluating Karen Obiageli Ejiofor (See also S.M., Course VI) Next-Generation Technologies in Clustering of Similar Incident Tickets Biocatalysis Using Natural Language Processing Dany El Kfoury **Christopher Laurence Crouch** Mindi Man-Yee Chen Katherine Adams Elfers Juan José Daboub Silhy Richard Polin Chen Josefina Elsaca Rupen Amritlal Dajee Shirin Chen Ezgi Emiroglu Rachel D'Apice Daniel Stacey Chen Dashnamjil Enkhbayar **Gregory Alexander Davis** Matthew Dominic Chew Ming Chang **Cristobal Errazuriz Bulnes** (See also S.M., Course II) (See also S.M., Course XXII) Semi-Automatic Nesting and Lean Site Selection, Vendor Evaluation, and Problem Solving in a High-Mix Low-Manuel Alejandro Esparragoza Deployment of Nuclear Microreactors in Volume Production Environment Remote Mining Operations **Austin Johannes Evers** Amar Madhukar Dayal Kundai Tadeous Chifamba Cameron Lee Field Rolando Amin de la Cruz Alvarez Sungi Cho Harrison Philip Florence

Leo Alexander Fondriest Wendi Guraziu Justin Enrique Hernandez **Branden Thaddeus Francis** Doğan Gürbeden Toru Hirata (See also S.M., Course II) Minimizing Total Delivered Cost of Soniya Gurung **Cameron Thomas Gerald Hoffman** Stamped Assemblies Through Sourcing (See also S.M., Course I) Optimization Modeling System Efficiency in Mixed-Juan Jose Guzman Model Assembly Lines Danielle Erin Fregia Ruben Guadalupe Guzman Andrew Frederick Holden Yi Minnie Fu **Evan Guang Haas** Nicholas Jay Holmes (See also S.M., Course II) Leah Paige Gaffney (See also S.M., Course II) Optimization of Thermoplastic (See also S.M., Course VI) Scheduling in a High-Mix Low-Volume Composite Manufacturing with Digital Extracting Coronary Lesion Information Job Shop Process Intelligence from Angiogram Reports for Patient Screening Applications Shinjiro Honda Matthew A. Habel (See also S.M., Operations Research) Luis Enrique Garcia Cordero An Analytical Framework for Planogram **Elizabeth Enoch Hong** Portfolio Optimization Raghav Garg Edward Hu Fardina Habib Olivia Juliet Gebhardt Tianxing Hu Jaylen Kirvath Hackett **Itay David Geist Aoying Huang** Lucia Haito Abraham Gebreab Gerzeghier Danwei Huang (See also S.M., Course II) Mary Alden Hancock An Environmental Impact Assessment of Jia Xin Huang 3D Printed Medical Devices Katie Louise Hango Steven Francis Hubbard, Jr. Daniel Giambrone Micheil Moanes Micheil Hanna Ba-(See also S.M., Course VI) **Empowering Delivery Service Partners:** noub Tal Florence Gilad A Study on Leveraging Generative Artificial Intelligence and Text Clustering Caeley Gaw Harihara Ingrid Glitz de Assis to Support External Partners (See also S.M., Course VI) Optimization and Rule-Based Models for **Jennifer Goncalves** Hospital Inventory Management Clarissa Gaylord Hunnewell Hugo Alberto González de la Fuente Sarah Elizabeth Harmon Rebecca Arthur Hutman **Hunter Reed Goodson** Alec Harold Alexis Marie Iderman **Chad Anthony Gordon** Tess Edna Harper Monica Isabel Idrovo Hilary Belle Greenberg Peter Richard Harris Isabella Impelliziere Fernandes Ismael Güereca Valdivia Heidi Jill Hatteberg Gabriella Maria Jennett (See also S.M., Course X) (See also S.M., Course II) Preemptive Variation Reduction in Product SKU Analysis, Rationalization, **Brent Jiang** Biologic Drug Substance Manufacturing and Optimization Irene Guo Jiang Santiago Guerrero Valderrama Siran He Pablo Jimenez Zapata

Mitchell Henstock

Yuzhi Guo

Jing Jin Alvin Kusuma Kustedjo Molly Rose Livingstone **Bryant Eugene Johnson** Nino Kvirikashvili **Evan Caldwell Long** (See also S.M., Course II) Secrets of the Aluminati: Bottleneck Dominique M. Johnson Tolulope Abimbola Ladele Assessment within an Aluminum Rolling Olivia Jane Jones Trenton Lam Ilia Lotov **Robert Paul Jones** Shea Annelise Landeene (See also Ph.D., Course X and S.M., Thomas Tadashi Luly Course X-A) Rachel Alyssa Lang Andrew Lydon Dayquan Antonio Julienne **Emily Patricia Larson** Luis Arnaldo Machado Roberty Dennis Michael Kamara Dana Quỳnh-Vân Lê Hiba Rameen Mansoor Justin Michael Kan Quoc Hung Le Luna Maroun Gowri Kannan Victor Leão Alvarenga de Medeiros Luis Martín López Lipika Kapoor Jessica Ellen Lee (See also S.M., Course II) Anandha Matrakul Alexa Brooke Katz Leveraging Digital Tools and Analytics for Temperature Management in Cold Chain Systems for Gene Therapies Andrew Luke Mazof Jessica Kelemen Konsang Lee Meghan Rose McAneny Katherine Elizabeth Kelly Nelson Rafael Lee Khalid Marcellus McCaskill Kieran Paul Kelly Evan Daniel Lefkovitz Elizabeth Grace McLarty Delaney Josephine Kerkhof Alexys Nicole Leija **Brandon Patrick Meehan** Maria Khim (See also S.M., Course II) US Green Hydrogen Production: Strategic Benjamin Daniel Lerman Ping King Approaches to Enhancing Economic (See also S.M., Course II) Viability and Market Development Techno-Economic Analysis of Line Haul Ian Alexander Kleinemolen and Switcher Locomotive Propulsion by (See also S.M., Course II) Diesel, Battery, and Hydrogen Fuel Cell Rhea Mehta Inventory Optimization and Simulation Technologies Analysis for Supply Chain Disruption Mark Bryant Membreno Events Gad Aaron Lewinsohn Israel (See also S.M., Course I) Price Elasticity of Air Travel Demand Ryan Poe Kochert Using Econometric and Machine Ruoqi Li (See also S.M., Course VI) Learning to Scale Up Sustainable Process Digitalization: 3D Deep Learning Aviation Fuels in Manufacturing Applications Benjamin John Likis Ashley Leyong Meng Nived Kuruvilla Kollanthara Cheng Hui Lim Maurício Menossi Neto Devi Maharani Kosa **David Linstone** Abigail Ruth Meyer Sara Talia Kramer Sandy Jia Liu Danaé Marine Miao Neha Krishnamachary Stacy Lily Liu

Nicholas Dean Miller Teodor Nicola Antoniu Henry Archer Patton (See also S.M., Course VI) Enhancing Digital Customer Self-Service Fabian Mohr Oyindamola Pedro Efficiency through Recommendation (See also Ph.D., Course X) Systems Christina Michelle Peña Santiago Molina Kanyakorn Niyomsatian Mario Enrique Pena Valerie Alessandra Moreyra Isabela Nogueira Reis **Ryan Anthony Perkins** Scott Morgan Thomas Daniel Nowinski Lisia Astari Pertiwi **Justin William Morris** Obianuju Lilian Nsofor **Ross Christie Phillips Spencer Harry Victor Morris** James Patrick O'Brien **Tomas Agustin Pichel** Miranda Elizabeth Morton Chizitere Obioha Passachai Polanunt Parinaz Motamedy Takuya Odagiri Yanghan Qi Christopher Mui (See also S.M., Course I) Jiwoo Oh Building Inventory Simulations for High Velocity Garment Retail Stores Rounak Mukhopadhyay Donald Odira Okoye (See also S.M., Course VI) Kelly Naiyao Qiu Sophia Anna Mullineaux **Evaluating New Business Opportunities** for Interregional Transmission Jedidiah Thomas Hiss Quint Blanca M. Murga (See also S.M., Course XVI) Ololade Opeyemi Olaleye How Complexity Drives Long Lead **Anthony Franklyn Ramirez** (See also S.M., Course VI) Times: A Queueing Theory Space Machine Learning and Stochastic Industry Application Simulation for Inventory Management **Beatriz Elena Ramirez Daniel Talbott Murphy** Maria Alejandra Olazabal Tamayo Shubhangi Rana (See also S.M., Course XXII) Shutdown Dose Rate Modeling for **Juliana Baratta Oliver** Miriam Akushia Randolph-Akushie Radiation Requirements Development and Design Trend Analysis in the ARC Fusion Device Pablo Omenaca Muro Surya Teja Raviillu Mariama N'Diaye Alexandra Caroline Orsky Kunal Rayakar (See also M.C.P., Course XI) Ayodele Christian Owopetu Roy Reinhorn Nadine Naboulsi Tomas Victor Pardiñas **Grant William Rice** Shunsuke Nakano Joon-Sung Park **Blake Constantine Ridley** Misha Arun Nathani Aqil Pasha Peter Graves Hewitt Rilev Abhilasha Negi Harsh Patel Camila Rioseco Mercado Julie Elizabeth Newman Richa Patel Jacob Rizika Nathan Nam Nguyen

Alexandra Marie Patterson

Tien Nguyen

**Noah Wolfe Roberts** 

Matthew Cole Robins (See also S.M., Operations Research)	Benjamin Joshua Shtuhl	Isabelle Tashima
Enhancing Middle-Mile Inventory Management Policies Through	Bryan Samuel Silverman	Yaphet Tedla
Simulation and Reinforcement Learning	Miles Jordan Silverstein	Alain Teh Yaoyuen
Annika Lynn Roise	Lucrecia M. Siman	Carlos Eduardo Teysseire
Andres Romero Pompa	Gabriel Siman Machon	Sitanan Thamparanon
Eduardo Rosario (See also M.C.P., Course XI)	Gaiane Simonian	Marie-Renee Thomas
Sierra Nicole Rosenzweig (See also S.M., Course I)	Ignacio Siska Aguilar	Alexa Katherine Tarleton Thompson
Greenhouse Gas Optimization Across a Multi-Echelon Manufacturing and	Stephanie Birgitta Elisabet Sjoblom	Luke Gianni Tortora
Distribution Network	Kaye Anderson Slamp	Allison Chang Tsay (See also S.M., Course XVI)
Charlotte Rachelle Ross	Skylar Wakelee Smith	Framework for Enhancing Decision-Making Capabilities in the
Pedro Vladimir Russell	Joanne So	Decarbonization of the Airline Industry
Jean Ruwet	Desi Soetanto	Hoi Yee Jocelyn Tse
Mochammad Dimas Andra Saputra	Ayabulela Solombela	Nasan Tsengeg
Priyamvada Saraf	Natcha Sophonpanich	Nana Tsuchiya
Minoru Sasaki	Maria Agustina Azul Soriano Sergi	Tohori Tsuchiya
Yotaro Sasaki	Jackson Murphy Spilka	Abhinav Tyagarajan
Stefan John Sayre	Theodore Francis Squires	Uapoom Uanarumit
Max Schotz	Max Alexander Sterling	Anton Ulyanov
Kathryn Gabriella Sessa	Alexandra Marissa Sugarman	Matias Umaschi
Payton Jane Sessions	Mark David Sweet, Jr.	Nwakaego Uzoh (See also M.C.P., Course XI)
Mark Toshimitsu Ghun Cheung Seu	(See also S.M., Course II) Breaking the Mold: Using Automated Design to Accelerate Composites	Sajiree Vivek Vaidya
Stéphanie Emmanuelle Sévère	Manufacturing Composites	(See also S.M., Course I) Data Roadmap for Last Mile
(See also S.M., Course I) Creating the Warehouse of the Future	Criselda C. Low Tay Sy	Sustainability
Karishma Sewaramani	Santiago Tagle Llamosas	Timothy Thomas Valicenti
Hehe Shen	Kyoko Takagi	Ernst Hendrik van Biljon
Marina Shibutani	Angelique Marie Aure Talmor	Georgios Varelas

**Suwapat Tasawat** 

Nandika Shivayogi Angadi

Carlos David Vela González (See also S.M., Course I) Resilient by Design: A Supply Chain Digitalization Journey Luis Carlos Velásquez Mansilla Ana C. Vendemiatti Haddad (See also S.M., Course II) Optimizing Integrated Continuous Biomanufacturing Throughput: Resource Constraints and Process Scheduling

Adam Donald Vignaroli (See also S.M., Course I) Establishing Inventory Maturity in a Make-To-Order Manufacturing Environment

Bohdan Igorovych Volyanyuk

Hannah Jaffe Walter

Alice Wang

Sharon Shuo Chun Wang

**Zachary Lynn Wang** 

Reimar Weißbach Scaling Metal Additive Manufacturing from R&D to Production

**Daniel Thomas Willette** (See also S.M., Course I) Paths to Achieving Scope 1 Carbon Neutrality in Building Utilities

**Kyle Maxwell Williams** 

W. Grant Windom

Olga Gabriela Wołowiec

Lili Wondwossen

Tong Wu

Haruka Yamashita

Yicheng Yan

Karen Ke Yang

Rong Yao

(See also S.M., Course I) Delivery Estimate Accuracy: Understanding and Reducing Virtual-Physical Mismatches and Missorts in Fulfillment Centers

Shuman Ye

Sabrina Yu-Ling Yen

**Emily Mengyue Yu** 

Carlos Andres Zambrano

**Biying Zhang** 

Wenqing Zhang

Siyu Zhao

William Zheng

Quan Zhou

Magda Helena Zydzik

**Master of Business Analytics** 

Course XV-N Sloan School of Management

Austin Edward Ader (September, 2023)

Dalal AlRamadhan (September, 2023)

(September, 2023)

Marco Antonioli (September, 2023)

Claudia Arrese Mata (September, 2023)

Dafne Francisca Badilla Santana (September, 2023)

Moritz Bartusch (September, 2023)

Amjed Belkhiri (September, 2023) Zachary Andrew Bell (September, 2023)

Mohammed Ali Benchekroun (September, 2023)

Alexandre Berkovic (September, 2023)

**Guillaume Bonheure** (September, 2023)

Shurui Cao (September, 2023)

Abhranil Chakrabarti (September, 2023)

Vassili Nicolas Chesterkine (September, 2023)

**Daniel Jaehoon Chung** (September, 2023)

Oscar Courbit (September, 2023)

Cameron Cubra (September, 2023)

Maïwenn Danno (September, 2023)

Bibhabasu Das (September, 2023)

Estella Maria Dentinger (September, 2023)

Rui Qing Duan (September, 2023)

Patrik Đurđević (September, 2023)

Gavin Lachlan Luke Findlay (September, 2023)

Nikolaos Galanos (September, 2023)

Júlia Gimbernat Mayol (September, 2023)

Shuyi Guan (September, 2023) Shuyu Guo Rodrigo Olivares Lopez **Anant Vashistha** (September, 2023) (September, 2023) (September, 2023) Shreya Gupta Maxwell Vincent Petruzzi **Qinwen Wang** (September, 2023) (September, 2023) (September, 2023) Xinyao Han Paula F. Pieper **Zachary Wayne** (September, 2023) (September, 2023) (September, 2023) Yicong Han Julien Pinede Thomas Gudjon Wright (September, 2023) (September, 2023) (September, 2023) Muhammad Ahmad Hussain Victor Timothee Radermecker Xiaoyu Wu (September, 2023) (September, 2023) (September, 2023) Sayyed Muhammad Ahsan Imran Mattia Ravasio Prarabdha Ojwaswee Yonzon (September, 2023) (September, 2023) (September, 2023) Arushi Jain Srikanth K. Reddy Yen Hann Yoo (September, 2023) (September, 2023) (September, 2023) Rachit Jain Jan Reig Torra, Jr. Andrea Zanon (September, 2023) (September, 2023) (September, 2023) Hamza Zerhouni Megi Jaupi Jiaoying Ren (September, 2023) (September, 2023) (September, 2023) Jiarui Jiang **Roland Rocafort Fernandez** Shengwei Zhang (September, 2023) (September, 2023) (September, 2023) Michał Ryszard Laskowski Paul Christoph Roeseler Xinran Zhang (September, 2023) (September, 2023) (September, 2023) Duanchen Liu Zehao Zhao Ayush Sanjay Shukla (September, 2023) (September, 2023) (February, 2024) Shannan Shao-Nan Liu Nikita Singh Bingyu Zhou (September, 2023) (September, 2023) (September, 2023) Yifei Long **Bolin Song Master of Finance** (September, 2023) (September, 2023) Course XV-F Sloan School of Management Joseph Young Lu Shiyin Tan (September, 2023) (September, 2023) Pranay Agrawal Phakjira Tanaboriboon (February, 2024) Ryan Declan Lucas (September, 2023) (September, 2023) Rocco Arcieri (September, 2023) Yanzhe Ma Reid Taylor (September, 2023) (September, 2023) **Borys Babiak** 

**Paul Theron** 

(September, 2023)

Hermine Tranie

(September, 2023)

(February, 2024)

Tanmay Bagree (February, 2024)

**Evan Scott Marrone** 

**Brittany Huong-Giang Nguyen** 

(September, 2023)

(September, 2023)

Arjun Banerjee Gabriel Deo Xingyao Jiang (February, 2024) (February, 2024) (February, 2024) Elena Baroni Edoardo Errani Xinyue Jiang (February, 2024) (February, 2024) Jingwen Fang Olivier Baverez (February, 2024) Arnav Karan (February, 2024) Arsh Bawa Xiying Feng (February, 2024) **Hugh Patrick Kelly Bowen** Simon Herman R Folens Sacha Binisti (February, 2024) Andy Koh (February, 2024) **Camiel Fortass Dimitrios Konstantellos Thomas Samuel Britten** (February, 2024) Jacob Sortland Fougner Sergey Korsunov (February, 2024) **Daryl John Burton** Jérémie Lecoutre (February, 2024) Kristoffer Foxman Chen Li Wenxin Cai **Eric Frederik Frey** (February, 2024) (February, 2024) (February, 2024) Jiaxin Li Yixiao Cao (February, 2024) Yunfan Gong (February, 2024) (February, 2024) Yunda Li Shivani Chaudhary Jóhann Vignir Guðmundsson (February, 2024) Tingyu Chen **Amaury Guillou** Chen Han Lin (February, 2024) (February, 2024) Georges Haidar **Paul Richard Cleary** (February, 2024) Junlin Liu (February, 2024) (February, 2024) Guil Hayoun Pietro Thomas Alexandre Cren Peng Liu (February, 2024) Jean-Philippe Baptiste Bruno Hicke Cameron Dahan (February, 2024) Tongxu Liu Harshaan Dargan (February, 2024) Ruosi Hu (February, 2024) (February, 2024) Xiwen Liu Federico De Rosa (February, 2024) Shiyue Huang (February, 2024) (February, 2024) Jerry Lu Dimitri de Witt (February, 2024) Yun-Shu Huang (February, 2024) Houzhu Luo Yunjia Huang **Marcus Anthony Dennis** (February, 2024) (February, 2024) Tristan Bernard Gabriel Magnin Tyson Amar Dennis-Sharma Da Huo (February, 2024) (February, 2024) (February, 2024) Forecasting Equity Volatility Dynamics Efficient Estimation of Stochastic with Markov-Switching EGARCH Parameters: A GLS Approach George Goodwin Masterson

Models

(February, 2024)

Melodie Melard (February, 2024)	Maxime Urban	Yilei Xu (February, 2024)
Ismail Mouelhi	Supravee Veerapala (February, 2024)	Zhehan Xu (February, 2024)
Mads Bogen Øye	Henrik Hermandsen Veiberg	Chengfei Yan
Ilona Pecqueur (February, 2024)	Zimo Wan (February, 2024)	(February, 2024)
Guochen Qiu (February, 2024)	Hanting Wang (February, 2024)	Jinchen Yang (February, 2024)
Jinghan Qiu (February, 2024)	<b>Leiyuan Wang</b> (February, 2024)	Yihan Yang (February, 2024)
Tanya Ratra (February, 2024)	Mian Wang (February, 2024)	Zhiheng Yang (February, 2024)
Adalberto Rinaldi	Qianqian Wang	<b>Ziyue Yang</b> (February, 2024)
(February, 2024)  Alexis Manuel Rizo López	(February, 2024)  Yifan Wang	Siyang Yu (February, 2024)
(February, 2024)	(February, 2024)	Yue Yu (February, 2024)
Rohan Sharma (February, 2024)	Yijia Wang (February, 2024)	Zekai Yu
Ruizhe Shi (February, 2024)	<b>Zelin Wang</b> (February, 2024)	(February, 2024) Bin Yu Yuan
Maud Soerlie (February, 2024)	Quan Wen (February, 2024)	(February, 2024)
Anders Chrastek Steiness	Tao Wen	Xizi Yuan (February, 2024)
Nicolas E. Suter	Xuanrui Wu (February, 2024)	Yichen Zhan (February, 2024)
Paul Svidrun	Yixin Wu	Hanqi Zhang (February, 2024)
Naohiro Takeoka	(February, 2024)	Jinyuan Zhang
Qingyi Teng (February, 2024)	Ming Xian (February, 2024)	(February, 2024)
Yao Tong (February, 2024)	Xin Xiang (February, 2024)	Qianhan Zhang
Pietro Toso	Xinyan Xie (February, 2024)	Qinyun Zhang (February, 2024)
Ka Yi Tsoi (February, 2024)	Jingyu Xu	Ruixi Zhang (February, 2024)
Sarthak Tyagi (February, 2024)	(February, 2024)	Ruojia Zhang (February, 2024)

Xinyi Zhang

(February, 2024)

Yige Zhang

(February, 2024)

Tianchen Zhao

(February, 2024)

Xinran Zheng

(February, 2024)

Yaxuan Zheng

(February, 2024)

He Zhu

(February, 2024)

Master of Science in **Management Studies** 

Course XV-S

Sloan School of Management

Maxime Alain Allouch

No Time to Train? Lessons from CEO-Athletes

Taieb Bennani

Advancing Healthcare with GenerativeAI: A Multifaceted Approach to Reliable Medical Information and Innovation

Oiwei Chen

From Private to Public: Why Do Alternative Asset Managers Go Public?

Aïda Sadio Diallo

Financial Inclusion in Sub-Saharan Africa: A Multidimensional Index

Wenzhe Dong

Strategic Transformation Trends within Automobile Supply Chains in the Post-Pandemic Era

**Apolline Dupont** 

Reimagining the Impact of Large Financial Deals Towards a Holistic Evaluation of Economic and Societal Consequences: The Case Study of Veolia Suez

Gaspard Alain Frank Ginolhac

Performance of The Private Equity Industry During Depressed Macroeconomic Conditions

Jorge Grima Sumarroca

Investment Thesis and Valuation of Soccer Clubs

Weizong Han

Private Equity Secondaries: A Comparative Analysis on the US and Chinese Markets

Eric Robert Haywood

Strategy for an Agricultural Workforce Platform Enabled by AI

Aliki Lavda

Exploring the Intersection of Management Practices and Bottom of the Pyramid Economics in Developing Countries

Zixuan Li

Investigating Generative AI Use for Academic Work among College Students: Potential Impact and Policy Implications

Anna Louise Elisabeth Mathy

From Prohibition to International Recognition: Key Factors Driving the Development of California as a Premier Wine Region

Enrique Marcos Müller Imbern

Market Making & Liquidity Provision in Developing Economies

Matthieu Arnaud Georges Jacques

Enhancing Competitive Rebalancing in Sports Through Social Investment

Richard Victor Rémy David Robinet-Duffo

How Can Brands Try to Influence Social Norms?

Francisco Guevarra Roman

Bridging Digital Transformation Gaps in Southeast Asia

Fotios Sarantopoulos

Decarbonizing the Shipping Industry through Innovative Technologies, Artificial Intelligence and New Regulations

Ting Shen

Innovation and Strategy in the Food Industry: Trends, Challenges, and Implications for New Entrants

Matteo Spiller

Unearthing Regulatory Influences on Climate Risk Adaptation: Exploring Asset Stranding and Regulatory Shortcomings in the US Housing Market

Yosuke Tamura

How Can We Promote Impact/ESG Investing by Stimulating Altruistic Behavior?

Thierry Francis Marie Pierre Vanparys

(February, 2024)

How Actors and Groups in the Family Business System Influence Innovation in the Family Business: An Analytical Framework

Wei Wang

The Study of ESG Strategies on the Development and Financial Performance of Traditional Energy Enterprises Using System Dynamics - A Case Study on One Oil and Gas Company

Jing Yang

Beyond Evergrande: Rethinking Real Estate Market in China and the USA for Long Term Growth and Sustainability

Kai Liang Yeo

Open Innovation in Alternative Protein: A Review

Chen Zhang

Experience and Business Woes of a Major Chinese State-Owned International Engineering Company in Venezuela

Rui Zhu

Hong Kong's Transformative Journey Under 'One Country, Two Systems': Processes, Trends and Reflections at the Midpoint

Yangluyao Zou

Digital Mental Health in the Corporate Sphere: Evaluating Trends, Tools, and Impacts on Organizational Dynamics

### Master of Science in **Management of Technology**

Course XV-A

Sloan School of Management

#### Evy Wei Chen

Retail Media Networks as Ad Revenue Model for CPG Brands

#### Johannes Galatsanos-Dueck

Re-Imagining Drug Discovery with Quantum Computing: A Framework and Critical Benchmark Analysis for Achieving Quantum Economic Advantage

### Master of Science in **Management Research**

Course XV

Sloan School of Management

#### **Charles Edwin Downing**

(February, 2024)

The Determinants of Voluntary Carbon **Emissions Targets** 

#### Yuxin Han

Impact of Litigation Financing Disclosures on Patent Litigation

#### Sunghyo Kim

Box Jumping: Portfolio Recompositions to Achieve Higher Morningstar Ratings

### Jiageng Liu

Measuring Human Capital Investment on the Job

### Jose Luis Lopez

(September, 2023)

Opportunities for System Dynamics Research in Operations Management for Public Policy

#### **Cameron Charles Martel**

(September, 2023)

Are Fact-Checks Effective Even for Those Who Distrust Fact-Checkers?

#### Reed Isaac Orchinik

Uncommon Errors: Adaptive Intuitions in High-Quality Media Environments Increase Susceptibility to Misinformation

#### Karen MacKenzie Scott

(September, 2023)

Workforce Practices & Organizational Performance in Nursing Homes: Implications for Resident Health and COVID-19 Containment

#### Jaeyun Song

Online Mingling: Supporting Ad Hoc, Private Conversations at Virtual Conferences

### Di Tong

Beyond Wages and Employment: Do Minimum Wages Affect Management Practices?

### Bradley R. Turner

(September, 2023)

The Storytelling Entrepreneur Has No Clothes: Rewards and Risks of Narrative Pitching

#### **Yuting Wang**

(February, 2024)

Does Investors' Belief on Other Investors' Information Acquisition Affect Trading and Price?

#### Cindy Zhang

Climate Change and Municipal Bond Ratings

### Victoria Yiluan Zhang

Organizational Culture, Class Values, and Subordination at Work

### Master of Science in Operations Research

Sloan School of Management in conjunction with the Schwarzman College of Computing

### Matthew A. Habel

(See also M.B.A., Course XV) An Analytical Framework for Planogram Portfolio Optimization

#### Qingxuan Jiang

(February, 2024)

Choice Modeling and Assortment Optimization on the Transformer Model

### Thomas David Kyle

Analytics for Healthcare Operations: Machine Learning to Improve Emergency Department Patient Flow

#### **Brenton Alexander Pieper**

Security Assessment of Autonomous Networked Systems: A Multi-Agent Reinforcement Learning Approach

#### **Arnaud Robin**

(February, 2024) Robust Inventory Induction under Demand Uncertainty

### **Matthew Cole Robins**

(See also M.B.A., Course XV) Enhancing Middle-Mile Inventory Management Policies Through Simulation and Reinforcement Learning

### SCHOOL OF SCIENCE

### **Master of Science in Chemistry**

Course V

Department of Chemistry

#### So Yee Cheung

(February, 2024)

Database and Application Programming Interface Development for Rotational Spectroscopy

#### Alexander Thienquang Duong

Investigating Cofactor Transfer for a B12-Dependent Enzyme

#### Khrystofor Khokhlov

(September, 2023)

Expanding the Structural Diversity of Discrete Polymers Accessible Through Iterative Exponential Growth

#### Nichakan Khuichad

Site-Selective Anion Exchange in a Palladophosphorane

#### **Brittany Nicole Linn**

Synthesis of Isotopically Labeled Fe and S-alkylated Iron-Sulfur Clusters

### Master of Science in Biology

Course VII

Department of Biology

#### Claire Chen Luo

Nucleolus Activity-Dependent Recruitment and Biomolecular Condenstation by pH Sensing

#### **Master of Science in Physics**

Course VIII

Department of Physics

### Jixiang Yang

Photocurrent Spectroscopy Study of Graphene / Hexagonal Boron Nitride Moiré Superlattice in the Far-Infrared Regime

### Master of Engineering in **Computation and Cognition**

Course VI-9

Department of Brain and Cognitive Sciences in conjunction with the Schwarzman College of Computing

### Mona Magdy Abdelrahman

(February, 2024)

Detecting Human Memory Processes via Bio-Signals

### Samuel T. Acquaviva

Human-Like Program Induction with Natural Language

### Brian A. Bailey

It's About Time

#### Annalisa J. Broski

(February, 2024)

Comparing Developmental Trajectories of Loophole Behavior in Autistic and Neurotypical Children

#### Jesus Crespo

(September, 2023)

Any Order Recurrent Neural Network Grammars

#### Theodor Cucu

Developing a Psychometric Tool to Measure the Emotional Impact of Visual Content

#### Emelie A. Eldracher, PLY

Inclusive Mobile AI Rowing Coach from Pose Estimation

### Marie Diane Fadel

Methods for Extracting and Analyzing Political Content on TikTok

### Ariel S. Fuchs

An Exploration of Developmental Change in Ego-Motion Experience in Infancy

### Stephanie Pui-kay Howe

A Multi-Omic Analysis of Neurodegeneration in Alzheimer's Disease and Related Dementias

#### **Emily Huang**

(February, 2024)

Investigating Neuronal Cell Classes and Their Role in Cognition

#### Andrew W. Jenkins

(See also S.B., Course VI-9) Learning Sim-to-Real Robot Parkour from RGB Images

### Faduma B. Khalif

(February, 2024)

Creating a Conformal Framework for Disease Identification in the Context of Sleep Disorders

#### **Jiachen Elizabeth Lee**

Characterizing the Hippocampal Cortex During Language Processing

#### Elian Malkin

Minimally Invasive Magneto-Mechanical and Magneto-Genetic Neuromodulation

### Sofia M. Marquez Gomez

(February, 2024)

Evaluating Data Augmentation with Attention Masks for Context Aware Transformations

### Kinan Remy Martin

Phonetic Reduction and Contextual Predictability

#### Ilan Mitnikov

Geometric Deep Learning for Biomolecules

#### **Keith Thomas Murray**

(February, 2024)

To Attract or to Oscillate: Validating Dynamics with Behavior

#### Thomas Tien Ngo

(February, 2024)

Application of Multi-Objective Genetic Optimization in PCB Component Placement

### Nikasha G. Patel

(February, 2024)

Baby Gym: Bridging the Gap between Reinforcement Learning and Human Infant Locomotor Development

### Anita Podrug

Targeted Memory Reactivation

#### Yuting Qin

(See also S.B., Course VI-9) Understanding and Improving Approximate Nearest Neighbor (ANN) Search for Billion-scale Vector Databases

### Varsha Sandadi

Evaluating Fairness of Artificial Intelligence Models for Radiology Image Classification

#### Kaitlin W. Zareno

Sharpness-Aware Minimization (SAM) Improves Classification Accuracy of Bacterial Raman Spectral Data Enabling Portable Diagnostics

# Master of Science in Earth and Planetary Sciences

Course XII

Department of Earth, Atmospheric, and Planetary Sciences

#### Vittorio Colicci IV

The Influence of Root Geometry on Soil Cohesion and Anchoring Ability through Geologic Time

#### Neosha G. Narayanan

(September, 2023) Modeling Subglacial Hydrology in the Himalayas

### Lucy A. Sandoe

(February, 2024) Deciphering Hydrological Responses: Elastic and Poroelastic Behavior through GPS Temporal Analysis

### Vanessa Sun

Investigating Tropospheric Hydrogen Peroxide Trends from 1950-2014

### AWARDED JOINTLY WITH THE WOODS HOLE OCEANOGRAPHIC **INSTITUTION**

### Master of Science in Civil and **Environmental Engineering**

#### **Autumn Rose Deitrick**

Course I (September, 2023) Sediment Erosion and Deposition Within Mangrove Forests

### Master of Science in Mechanical **Engineering**

#### Cameron Jordan Davis

Course II (September, 2023) Acoustic Minimization of Ocean Twilight Zone Vehicle, MESOBOT

#### **Matthew Alfredo Flores**

Course II (September, 2023) Remote Sensing of Ice Dynamics in the Beaufort Sea

### Chase Redd Pixa

Course II (September, 2023) Tracking Sargassum in the Caribbean: The Design, Deployment, and Validation of a Low-Cost Surface Drifter

### Master of Science in Electrical **Engineering and Computer** Science

### Mark Harry Goldwater

Course VI (February, 2024) Automatic Baleen Whale Detection and 2D Localization Using a Network of Unsynchronized Passive Acoustic Sensors

### Master of Science in Chemical **Oceanography**

### Erica Lauren Herrera

Course XII (February, 2024) Inferences on the Influences of Age & Porosity on Oxidative Weathering of Massive Sulfides at the Endeavour Segment of the Juan de Fuca Ridge

#### Isabel Vicenta Schaal

Course XII (February, 2024) Trace Metal Dynamics in Arctic Lagoon

### Master of Science in Physical **Oceanography**

#### Helena R. Cheslack

Course XII (September, 2023) Diel Vertical Migration and Frontal Variability of Acoustic Backscatter in the Balearic Sea

#### **Lucas Anthony Herron**

Course XII (September, 2023) Applying Statistical Analysis and Machine Learning to Improve the Ice Sensing Algorithm

### Oaklin Rhodes Keefe

Course XII (February, 2024) Energetics and Similarity Theory in the Wave-Affected Atmospheric Boundary Layer

### Michael Tyler Zimmerman

Course XII (September, 2023) Observations of the Upper Ocean from Autonomous Platforms during the Passage of Extratropical Cyclone Epsilon

### SCHOOL OF ARCHITECTURE AND PLANNING, DOCTORAL

#### Doctor of Philosophy

School of Architecture and Planning

#### Chelsea Marie Barabas

(September, 2023) Thesis in the field of Media Arts and Sciences: Uninventing Carceral Technology: Four Experiments in Imagining the World More Rigorously

#### Zachary Michael Berzolla

Thesis in the field of Architecture: Building Technology submitted to the Department of Architecture: Modeling Technology Pathways and Retrofit Adoption to Achieve City-Wide Building **Emissions Reduction Goals** 

#### Huili Chen

(September, 2023) Thesis in the field of Media Arts and Sciences: Robots as Social Catalysts:

A Multidisciplinary Framework for Designing Embodied Social Agents that Foster Long-Term Human Collaboration and Connection

### Kyung Yun Choi

Thesis in the field of Media Arts and Sciences: Tangible Telepresence: Distributed and Synchronous Tangible Interfaces for Enhancing Interpersonal Connectedness Over Time and Space

### Aleksandra Olegovna Durova

(September, 2023)

Thesis in the field of Urban and Regional Planning submitted to the Department of Urban Studies and Planning: Navigating Climate and Urban Change: Development Patterns, Conflicts, and Equity in a Sub-Arctic and Post-Socialist City

### Chantal El Hayek

(September, 2023)

Thesis in the field of Architecture: History and Theory of Architecture submitted to the Department of Architecture: The Société Française des Urbanistes and the Invention of Urbanism

#### Keeley Donovan Erhardt

Thesis in the field of Media Arts and Sciences: Hidden Influence in Dynamic Networks

### Demi Lin Fang

(See also S.M., Comp. Sci. & Eng) Thesis in the field of Architecture: Building Technology submitted to the Department of Architecture: System-Level Design of Low-Carbon Structures

#### Don D. Haddad

(September, 2023) Thesis in the field of Media Arts and Sciences: Responsive Space Environments: New Paradigms in Blending Virtual and Physical Exploration through Human-Robot Operations

#### Carmelo Ignaccolo

Thesis in the field of Urban Planning, Design, and Technology submitted to the Department of Urban Studies and Planning: Behind the Waterfront: Enduring Inequities and Illusive Renewals in the Making of Mediterranean Port Cities

#### Aarthi Janakiraman

Thesis in the field of Urban and Regional Planning submitted to the Department of Urban Studies and Planning: Repurposing Colonialism: Postcoloniality and the Politics of World Heritage

#### Kevin Lujan Lee

(September, 2023)

Thesis in the field of Urban Planning and Politics submitted to the Department of Urban Studies and Planning: Three Essays on Indigenous Politics: Methodology, Culture, Panethnicity

#### Isabella Loaiza Saa

(September, 2023)

Thesis in the field of Media Arts and Sciences: Empowering Career Crafting in the Future of Work: With Data-Driven Tools

### Ayan Hassan Meer

(September, 2023)

Thesis in the field of Political Economy submitted to the Department of Urban Studies and Planning: Migrant Capitalism: Emigration, Remittances, and Urbanization in Punjab

### Benjamin Joshua Preis

(September, 2023)

Thesis in the field of Urban Science and Policy submitted to the Department of Urban Studies and Planning: Three Essays on Rental Housing Markets in the United States

#### **David Bradford Ramsay**

(September, 2023) Thesis in the field of Media Arts and Sciences: Designing for Deep Engagement

### Pedro N. Reynolds-Cuéllar

Thesis in the field of Media Arts and Sciences: Contesting Design: Ancestral Technology as Portal to Post-Design(s)

#### Sebastian Sandoval Olascoaga

(September, 2023)

Thesis in the field of Urban Economics and Policy submitted to the Department of Urban Studies and Planning: Housing Dynamics in the Face of Shocks

Thesis in the field of Media Arts and Sciences: A Bone-Anchored Mechanoneural Knee Prosthesis to **Enhance Control and Embodiment** 

#### Sol Andrew Stokols

Thesis in the field of Political Economy of Urban Development submitted to the Department of Urban Studies and Planning: Building Digital Cities and Digital Nations: Singapore, Thailand, China

### Praneeth Vepakomma

(February, 2024)

Thesis in the field of Media Arts and Sciences: Connecting Silos with Distributed and Private Computation

### Nikolaos Vlavianos

(September, 2023)

Thesis in the field of Architecture: Design and Computation submitted to the Department of Architecture: Measuring the Psychological and Physiological Responses of Humans Experiencing Sacred Architectural Space in XR: A Case Study at the Monastery of Simonos Petra

### Anna Jean Waldman-Brown

(September, 2023) Thesis in the field of Industrial Geography and Political Economy submitted to the Department of Urban Studies and Planning: Robots and Humans in the Loop: Revitalizing Industrial Ecosystems

### Binzhe Wang

Thesis in the field of Urban and Regional Economics submitted to the Department of Urban Studies and Planning: The Value of Urban Amenities: Analyzing the Changing Dynamics of Consumer Goods, Mobility, and Green Spaces in Cities

### Zeguan Wang

Thesis in the field of Media Arts and Sciences: Imaging the Voltage of Neurons Distributed Across Entire Brains of Larval Zebrafish

#### Randi C. Williams

(February, 2024) Thesis in the field of Media Arts and Sciences: Impact.AI: Democratizing AI through K-12 Artificial Intelligence Education

#### Elizabeth Reed Yarina

(February, 2024) Thesis in the field of Urban and Regional Planning submitted to the Department of Urban Studies and Planning: Modeling the Mekong: Adaptation and Representation in Vietnam's Mekong Delta

### Seong Ho Yeon

Thesis in the field of Media Arts and Sciences: Enhancing Muscle Sensing Modalities for Advanced Bionics

### SCHWARZMAN COLLEGE OF COMPUTING, DOCTORAL

### **Doctor of Philosophy**

Schwarzman College of Computing

#### Cate Elizabeth Heine

(February, 2024) Thesis in the field of Social and Engineering Systems submitted to the Institute for Data, Systems, and Society: Leveraging Geospatial Data to Understand Social Mixing in Cities

#### Hussein Mozannar

Thesis in the field of Social and Engineering Systems and Statistics submitted to the Institute for Data, Systems, and Society: Making Better Decisions with Human-AI Teams

### Manon Revel

(September, 2023) Thesis in the field of Social and Engineering Systems and Statistics submitted to the Institute for Data, Systems, and Society: Diversity and Expertise in Representative Governance

#### Amir Tohidi Kalorazi

(September, 2023) Thesis in the field of Social and Engineering Systems and Statistics submitted to the Institute for Data, Systems, and Society: Exploring Behavioral Patterns: A Multidisciplinary Investigation of Habit Formation and Political Persuasion with Statistical Analysis

### Erin Elizabeth Walk

Thesis in the field of Social and Engineering Systems submitted to the Institute for Data, Systems, and Society: Leveraging Cross-Platform Social Media Data to Study Conflict and Polarization

## SCHOOL OF ENGINEERING, DOCTORAL

#### **Doctor of Science**

School of Engineering

#### Eunsoo Cho

Thesis in the field of Materials Science and Engineering: Cation Site Occupancy and Defect Engineering in Perovskite Heterostructures

#### Richard Tochi Ibekwe

Thesis in the field of Nuclear Science and Engineering: Characterizing and Using Defects in High-Temperature Superconductor Cables and Magnets

### Shyam Sivasathya Narayanan

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Cluster Analysis in High Dimensions: Robustness, Privacy, and Beyond

### Doctor of Philosophy

School of Engineering

#### **Jacob Lazer Adams**

Thesis in the field of Nuclear Science and Engineering: The Acoustic Expander

### Patrick John Adrian

(February, 2024) Thesis in the field of Nuclear Science and Engineering: Studying Particle and Energy Transport using Nuclear and X-ray Diagnostics for Discovery Science

and Inertial Confinement Fusion

## Shyan Shaer Akmal

Thesis in the field of Electrical Engineering and Computer Science: Parameterized Relaxations for Circuits and Graphs

### Miguel Angel Alcantar

(September, 2023) Thesis in the field of Biological Engineering: Synthetic Biology Platforms for Engineering Gene Regulation Networks

#### Mohamed Ibrahim AlHajri

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Constrained Information Exchange Message Passing Algorithm in Probabilistic Graphical Models

#### Matthew Frederick Allan

(September, 2023) Thesis in the field of Computational and Systems Biology: Investigating and Reprogramming RNA Folding with Molecular Probes

#### Aljumana Almahmoud

Thesis in the field of Computer Science submitted to the Department of **Electrical Engineering and Computer** Science: Enhancing Online Collaborative Learning: Designs for Effective In-Situ Discussion and Engagement in Large-Scale Learning Environments

#### Abdullah Omar M Alomar

(February, 2024) Thesis in the field of Electrical Engineering and Computer Science: Simulating Dynamical Systems from Data

### Han R. Altae-Tran

(September, 2023) Thesis in the field of Biological Engineering: Data Driven Discovery of Modular Biological Systems

### Aya Galal Mahdy ElSayed Amer

(February, 2024)

Thesis in the field of Electrical Engineering and Computer Science: Analog Mixed Signal Circuits Design with Emerging Technologies for AI and Edge Computing: From New Devices to New System Architectures

#### Sarah An-ning Antilla

(September, 2023) Thesis in the field of Polymers and Soft Matter submitted to the Department of Materials Science and Engineering: Improving Cardiac Delivery of Antisense Oligonucleotides with Peptidomimetic Targeting Agents

#### Pasquale Antonante

(February, 2024)

Thesis in the field of Autonomous Systems submitted to the Department of Aeronautics and Astronautics: Reliable Robotic Perception: From Outlier-Robust Estimation to Task-Aware Runtime Monitoring

#### Jon Arizti Sanz

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: From Sample to Answer: Innovations in Sample Processing and CRISPR-Based Diagnostics for Enhanced Clinical Translation and Field Deployment

#### Olivia Jane Arnold

Thesis in the field of Health Sciences and Technology submitted to the Harvard-MIT Program in Health Sciences and Technology: Therapeutic Applications of DNA Origami-Based Programmable Nanoparticles

#### Venkat Arun

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Verifying the Performance of Network Control Algorithms

#### **Eric Hamilton Atkinson**

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: A Language and Logic for Programming and Reasoning with Partial Observability

### Sarah Halina Mindel Av-Ron

(September, 2023)

Thesis in the field of Materials Science and Engineering: Design, Development, and Study of New High-Throughput Biodegradation Test for Polymers

### **Tunahan Aytas**

(February, 2024)

Thesis in the field of Materials Science and Engineering: Kinetics of the Cementitious Systems with the Incorporation of Unreactive Industrial Byproducts and Waste Materials

#### Arjun Varman Balasingam

(February, 2024) Thesis in the field of Electrical Engineering and Computer Science: Application-Aware Scheduling Architectures for Mobile Systems

#### Sai Praveen Bangaru

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Algorithms & Systems for Differentiable **Graphics Programming** 

#### K'yal Rasean Bannister

Thesis in the field of Chemical Engineering: Novel Pathway Design for Biopolymer Building Block Production

#### **Rachel Frances Bellisle**

Thesis in the field of Health Sciences and Technology: Medical Engineering and Bioastronautics submitted to the Harvard-MIT Program in Health Sciences and Technology: A Wearable Countermeasure for Musculoskeletal Deconditioning in Human Spaceflight

#### Adam Garrett Berger

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Systematic Engineering of Controlled, Localized Oligonucleotide Delivery Systems for Wound Angiogenesis

### Liane Sarah Béland Bernstein

(February, 2024) Thesis in the field of Electrical Engineering and Computer Science: Large-Scale Optical Hardware for Neural Network Inference Acceleration

#### Sachin Haresh Bhagchandani

(September, 2023) Thesis in the field of Chemical Engineering: Engineering Kinetics of Immunotherapies and Vaccines

#### Karan Bhuwalka

Thesis in the field of Mechanical Engineering: Modeling Sustainable Mineral Supply Pathways to Meet Clean **Energy Demand** 

#### Haixin Bi

(February, 2024) Thesis in the field of Computational

and Systems Biology: Investigating the Longitudinal Dynamics of the Human Gut Microbiome and Immune System

#### Rachel Sophia Bielajew

(February, 2024)

Thesis in the field of Nuclear Science and Engineering: Understanding the Nature of Fluctuations in the Edge of I-Mode and L-Mode Plasmas at ASDEX Upgrade

#### **Enric Boix**

Thesis in the field of Electrical Engineering and Computer Science: On Several Mathematical Characterizations of Deep Learning

### Serena Lynn Booth

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Building Blocks for Human-AI Alignment: Specify, Inspect, Model, and Revise

#### Meshkat Botshekan

(February, 2024)

Thesis in the field of Civil and Environmental Engineering: Unveiling Roadway Network Safety: Application of Statistical Physics to Crowdsourced Velocity Data

### Laura Eileen Brandt

Thesis in the field of Electrical Engineering and Computer Science: Human-Inspired Methods for Extending Advances in Computer Vision to Dataand Compute-Constrained Environments

#### Simone Bruno

(February, 2024)

Thesis in the field of Mechanical Engineering: Unveiling Epigenetic Cell Memory Mechanisms: A Comprehensive Investigation

#### Nicole Alejandra Bustos

(February, 2024)

Thesis in the field of Mechanical Engineering: An Investigation of the Role of Mucin Gels in Disease Progression and Transmission

#### Han Cai

Thesis in the field of Electrical Engineering and Computer Science: Model Acceleration for Efficient Deep Learning Computing

#### **Richard Benjamin Canty**

(February, 2024) (See also S.M., Course X-A) Thesis in the field of Chemical Engineering: Autonomous Experimentation for Molecular Discovery Applications

#### Nicholas S. Caros

(September, 2023)

Thesis in the field of Transportation submitted to the Department of Civil and **Environmental Engineering: Preparing** Urban Mbility for the Future of Work: Impacts and Adaptation

#### Lauren A. Chai

Thesis in the field of Mechanical Engineering: High Speed Acoustophoresis for Multiphase Micron-Sized Particle Assembly

#### Lucy R. Chai

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Controlling Image Synthesis with **Emergent and Designed Priors** 

### Manwei Chan

(February, 2024)

Thesis in the field of Aeronautics and Astronautics: Toward Real-Time Earth Observation with Satellite Constellation Crosslinks and Propulsion

#### Florian Chavagnat

Thesis in the field of Nuclear Science and Engineering: High-Resolution Experimental Measurements and Mechanistic Modelling of Saturated Cryogenic Pool Boiling Heat Transfer

#### Kevin Chia-Lun Chen

(September, 2023)

Thesis in the field of Electrical Engineering and Computer Science: Protocols and Devices for Scalable Spin-Photon Quantum Networks

#### Rujian Chen

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Approximate Bayesian Modeling with Embedded Gaussian Processes

#### Siiie Chen

(September, 2023)

Thesis in the field of Mechanical Engineering and Statistics submitted to the Department of Mechanical Engineering: Novel High-Throughput Technologies for Applications in Microbiology

#### Tao Chen

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Advancing Dexterous Manipulation via Machine Learning

#### Xi Chen

(February, 2024)

Thesis in the field of Materials Science and Engineering: Characterize Thermal Vibrations at Atomic-Scale with Electron Microscopy

#### Christopher Ho-Yen Chin

Thesis in the field of Air Transportation Systems submitted to the Department of Aeronautics and Astronautics: Centralized and Decentralized Approaches to Advanced Air Mobility Traffic Management

#### Inho Cho

(September, 2023)

Thesis in the field of Computer Science and Engineering submitted to the Department of Electrical Engineering and Computer Science: Mitigating Compute Congestion for Low Latency Datacenter **RPCs** 

### Yukio Cho

(September, 2023)

Thesis in the field of Materials Science and Engineering: Self-Assembled Molecular Nanomaterials and Their Applications

### Seo Woo Choi

(February, 2024)

Thesis in the field of Chemical Engineering: Integrative and Scalable Pipeline for Multi-Omic Characterization of Biological Tissues

#### Ching-Yao Chuang

(September, 2023)

Thesis in the field of Electrical Engineering and Computer Science: Robust Learning from Uncurated Data

### **Richard Bertram Church**

(September, 2023)

Thesis in the field of Polymers and Soft Matter submitted to the Department of Materials Science and Engineering: Towards Thick Battery Electrodes and Interdigitated Cell Architectures via Micro-Structured Carbon Nanotube Forests

### Lauren E. Clarke

Thesis in the field of Chemical Engineering: Defining Key Engineering Parameters to Advance Electrochemical CO, Separation Technologies

### **Christopher Bryce Courtin**

Thesis in the field of Aeronautics and Astronautics: Performance, Stability and Control of Electric Short Takeoff and Landing Aircraft

### Jose Enrique Cruz Serralles

(September, 2023)

Thesis in the field of Electrical Engineering and Computer Science: Integral Equation-Based Inverse Scattering and Coil Optimization in Magnetic Resonance Imaging

#### Yingnan Cui

(September, 2023)

Thesis in the field of Mechanical Engineering: Fast Parameter Learning In Adaptive Systems

### **Benjamin Reid Dacus**

Thesis in the field of Nuclear Science and Engineering: Inferring Microstructural Change through Non-Contact Ultrasonic Property Measurements

### James Kent Damewood

Thesis in the field of Computational Materials Science and Engineering submitted to the Department of Materials Science and Engineering: Machine Learning Methods for Order and Disorder in Crystalline Materials

### Rumen Rumenov Dangovski

(September, 2023)

Thesis in the field of Electrical Engineering and Computer Science: Representation Learning Through the Lens of Science: Symmetry, Language and Symbolic Inductive Biases

#### Ronald A. Davis III

Thesis in the field of Electrical Engineering and Computer Science: Combining RF Machine Learning and RF Photonics to Enable New Analog Communications Architectures

#### Jennifer Joanne Dawkins

Thesis in the field of Health Sciences and Technology submitted to the Harvard-MIT Program in Health Sciences and Technology: Computational Prediction of Health Status from the Human Gut Microbiome and Metabolome

#### Charles Burke Dawson

Thesis in the field of Autonomous Systems submitted to the Department of Aeronautics and Astronautics: Breaking Things So You Don't Have To: Risk Assessment and Failure Prediction for Cyber-Physical AI

#### Marc de Cea Falcó

Thesis in the field of Electrical Engineering and Computer Science: Integrated Photonics for Imaging: Novel Sources, Architectures and Applications

#### José del Águila Ferrandis

Thesis in the field of Mechanical Engineering and Computation submitted to the Department of Mechanical Engineering: Exploring Complex Problems in Fluid Dynamics: from CFD to Experiments Leveraging ML

### Samuel DeLaughter

(September, 2023)

(See also E.C.S., Course VI) Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Redistributing the Costs of Volumetric Denial-of-Service Mitigation

### Jie Deng

Thesis in the field of Civil and **Environmental Engineering:** Understanding Community Changes in Ecological Systems: A Probabilistic and Geometric Perspective

#### Carlos Daniel Díaz Marín

Thesis in the field of Mechanical Engineering: Physics and Engineering of Moisture-Capturing Hydrogels for Freshwater and Heat Harvesting

#### Brian Tshao Do

(September, 2023)

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Metabolic and Genetic Factors Guiding Hematopoietic Cell Fate

#### Mustafa Doğa Doğan

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Ubiquitous Metadata: Design and Fabrication of Embedded Markers for Real-World Object Identification and Ineraction

#### Manan Doshi

Thesis in the field of Mechanical Engineering and Computation submitted to the Department of Mechanical Engineering: High-Dimensional Optimal Path Planning and Multi-Timescale Lagrangian Data Assimilation in Stochastic Dynamical Ocean Environments

#### Lena Marie Downes

(February, 2024)

Thesis in the field of Autonomous Systems submitted to the Department of Aeronautics and Astronautics: City-Scale Cross-View Geolocalization with Generalization to Unseen Environments

### **Arkopal Dutt**

(February, 2024) Thesis in the field of Mechanical Engineering: Accelerating Learning of Quantum Systems Using Prior Information

### Souha El Mousadik

(February, 2024) Thesis in the field of Civil and Environmental Engineering: An in situ Investigation of Sediment Hydrodynamics for Advancing Seabed Mining Plume Monitoring and Modeling

#### Joshua James Elacqua

(February, 2024)

Thesis in the field of Biological Engineering: Developing Methods for Enhanced Measurement of DNA Single-Strand Breaks and Somatic Variants

#### Alireza Fallah

(September, 2023)

Thesis in the field of Electrical Engineering and Computer Science: Algorithmic Interactions with Strategic Users: Incentives, Interplay, and Impact

#### Lijie Fan

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Visual Representation Learning from Synthetic Data

#### Yiling Fan

(September, 2023)

Thesis in the field of Mechanical Engineering: Building Patient-Specific Models of the Heart to Study Cardiac Growth and Remodeling

#### Amanda Marie Farnsworth

Thesis in the field of Chemical Engineering: Decarbonizing the US Power Sector

### Adam Joshua Fisch

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Conformal Methods for Efficient and Reliable Deep Learning

### **Cameron Timothy Flower**

Thesis in the field of Computational and Systems Biology: Tumor Cell-Intrinsic Signals Promoting Tolerance and Adaptation to Oncogenic Kinase Inhibition

### Corbin R. Foucart

(September, 2023)

Thesis in the field of Mechanical Engineering and Computation submitted to the Department of Mechanical Engineering: High-Order Discontinuous Galerkin Methods and Deep Reinforcement Learning with Application to Multiscale Ocean Modeling

#### **Christopher Kurt Fourie**

Thesis in the field of Autonomous Systems submitted to the Department of Aeronautics and Astronautics: Real-time Anticipation and Entrainment in Human-Robot Interaction

#### Christopher John Frangieh

(September, 2023) Thesis in the field of Electrical

Engineering and Computer Science: Methods and Models of Screening Genomic Variants

#### Jiahui Fu

(February, 2024)

Thesis in the field of Mechanical Engineering: Long-Term Object-Based SLAM in Low-Dynamic Environments

#### Xiang Fu

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Learning to Model Atoms Across Scales

#### Ximo Gallud Cidoncha

(September, 2023)

Thesis in the field of Aeronautics and Astronautics: Studies on the Physical Structure, Properties and Operation of Ionic Liquid Electrosprays in the Pure-Ion Mode

### Amanda Gao

Thesis in the field of Environmental Engineering Science submitted to the Department of Civil and Environmental Engineering: Development and Characterization of a Novel, Low-Cost Method for Measurement of Volatile Organic Compounds

#### Weiran Gao

Thesis in the field of Chemical Engineering: Modeling and Analysis of a Lithium-Ion Convection Battery

### Juan José Garau Luis

(September, 2023) Thesis in the field of Autonomous Systems submitted to the Department of Aeronautics and Astronautics: Robustness of Reinforcement Learning

Systems in Real-World Environments

### Devashish Pratap Gokhale

Thesis in the field of Chemical Engineering: Sustainable Hydrogels for Water Treatment

#### Samuel Lucas Goldman

(February, 2024)

Thesis in the field of Computational and Systems Biology: Machine Learning Methods for Discovering Metabolite Structures from Mass Spectra

#### Jose Javier Gonzalez Ortiz

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Learning Reconfigurable Vision Models

#### Kevin Paul Greenman

Thesis in the field of Chemical Engineering and Computation: Optical Property Prediction and Molecular Discovery through Multi-Fidelity Deep Learning and Computational Chemistry

#### Peter William Grenfell

(February, 2024)

Thesis in the field of Aeronautics and Astronautics: Systems Performance Analysis for Autonomous Spacecraft Navigation within Satellite Constellations Using Intersatellite Optical Communications Links

### Carla Grobler

(February, 2024)

Thesis in the field of Aerospace, Energy, and the Environment submitted to the Department of Aeronautics and Astronautics: Past, Present, and Future Climate Impacts of Aviation

#### Xiaotong Guo

Thesis in the field of Transportation submitted to the Department of Civil and **Environmental Engineering: Towards** a Robust Integrated Urban Mobility System: Public Transit and Ride-Sharing Systems

#### Zhen Guo

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Data-Efficient Machine Learning for Computational Imaging

#### Stephen Carrol Guth

(September, 2023)

Thesis in the field of Mechanical Engineering and Statistics submitted to the Department of Mechanical Engineering: Analytical and Computational Methods for Non-Gaussian Reliability Analysis of Nonlinear Systems Operating in Stochastic Environments

#### Wael Hajj Ali

(September, 2023)

Thesis in the field of Mechanical Engineering and Computation submitted to the Department of Mechanical Engineering: Stochastic Dynamically Orthogonal Modeling and Bayesian Learning for Underwater Acoustic Propagation

#### Benjamin Alexander Hamilton

Thesis in the field of Mechanical Engineering: A New Method for Cryogenic Fluid Thermal Conductivity Measurements and Thermophysical and Transport Properties of Hydrogen-Helium Mixtures

#### Yena Han

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Towards Biologically Plausible Deep Learning

### **Emily Barret Hanhauser**

(September, 2023)

Thesis in the field of Mechanical Engineering: Miniature Bioanalytical Assays Utilizing Mechanical Actuation of Microspheres

### Alvin Donel Harvey

Thesis in the field of Aeronautics and Astronautics: The Cosmos as a Uniting Pillar of Relationships: A Diné & Hózhó Perspective

### Susana Wilson Hawken

(September, 2023)

Thesis in the field of Computational and Systems Biology: Linking Biomolecular Condensates to Disease and Therapeutic Development

#### Mingjian He

(February, 2024)

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: State-Space Modeling of Neural Oscillations: Toward Assessing Alzheimer's Disease Neuropathology with Sleep EEG

### **Connor Andrew Henley**

(September, 2023)

Thesis in the field of Electrical Engineering and Computer Science: Shadows, Mirrors, and Snow: Decoding Multibounce Light Transport in Time-of-Flight Photography

#### **Evan Hernandez**

Thesis in the field of Electrical Engineering and Computer Science: Automating the Interpretation of Neural Networks

#### Hailee Elida Hettrick

Thesis in the field of Aeronautics and Astronautics: Computationally Efficient Optimization of Formation Flying Trajectories, with Solar Radiation Pressure, near Lagrange Points

#### Jane Elizabeth Heyes

(September, 2023)

Thesis in the field of Electrical Engineering submitted to the Department of Electrical Engineering and Computer Science: Experimental Demonstration of Quantum Low Probability of Intercept for Ultra-Secure Communication

#### **Ahmet Esat Hizir**

(February, 2024)

Thesis in the field of Transportation submitted to the Department of Civil and Environmental Engineering: Airline Recovery Using Machine Learning and Optimization

### Megan Hoffman

Thesis in the field of Biological Engineering: Design Strategies for Macromolecular Targeted Protein Degraders

### Flemming Holtorf

Thesis in the field of Chemical Engineering: Bounds and Low-Rank Approximation for Controlled Markov Processes

#### Sungkweon Hong

(September, 2023) Thesis in the field of Autonomous Systems submitted to the Department of Aeronautics and Astronautics: Risk-Bounded Programming Using Constrained, Hierarchical, Stochastic Shortest Path Problems

### Jiliang Hu

(February, 2024) Thesis in the field of Mechanical Engineering: Emergent Behaviors in Complex Microbial Ecosystems

#### Qiangqiang Huang

(September, 2023) Thesis in the field of Mechanical Engineering: Scalable Full Posterior Inference for Uncertainty-Aware Robot Perception

#### Siying Huang

Thesis in the field of Materials Science and Engineering: Structure and Dynamics of Magnetic Domain Walls in Multi-Sublattice Magnetic Oxides

#### Zeshan Mohammed Hussain

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Towards Precision Oncology: A Predictive and Causal Lens

### Shibal Ibrahim

Thesis in the field of Electrical Engineering and Computer Science: Nonparametric High-Dimensional Models: Sparsity, Efficiency, Interpretability

#### **Stewart Anthony Isaacs**

Thesis in the field of Aerospace, Energy, and the Environment submitted to the Department of Aeronautics and Astronautics: Quantifying and Mitigating Dust Impacts on Solar Panels in West Africa

#### Brennan Leo Jackson

(September, 2023) Thesis in the field of Health Sciences and Technology submitted to the Harvard-MIT Program in Health Sciences and Technology: The Impact of Gamma Stimulation on Neurological Phenotypes of Alzheimer's Dementia and Down Syndrome

#### Farnaz Jahanbakhsh

Better Content Credibility

(September, 2023) Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Empowering Users on Social Media for

#### Saachi Jain

(February, 2024) Thesis in the field of Electrical Engineering and Computer Science: A Data-Centric Perspective on Model Reliability

#### Morgan Elizabeth Janes

Thesis in the field of Health Sciences and Technology submitted to the Harvard-MIT Program in Health Sciences and Technology: Engineering Translational Vaccine Delivery Systems with the Polyphenol Tannic Acid

#### **Daniel Jang**

Thesis in the field of Space Systems submitted to the Department of Aeronautics and Astronautics: Modeling the Future Space Debris Population and Orbital Capacity

#### Zexi Ji

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Flexible Energy-Aware Image and Transformer Processors for Edge Computing

#### Allen Yujie Jiang

(February, 2024) Thesis in the field of Chemical Engineering: Development and Evaluation of Localized mRNA Delivery Systems for Vaccines and Inhaled Therapies

#### Xiaojia Jin

Thesis in the field of Chemical Engineering: Carbon Nanotube Based Biosensors Using Corona Phase Molecular Recognition (CoPhMoRe): Development and Applications

### Mary Agnes Joens

Thesis in the field of Chemical Engineering: Modeling the Motion of Solid Objects Immersed in Viscoelastic Fluids

#### Joshua David John Rathinaraj

Thesis in the field of Mechanical Engineering: Novel Rheometric Techniques and Constitutive Models for Linear and Nonlinear Rheology: Applications to Polymeric Solutions and Colloidal Gels

#### **Robert Paul Iones**

(See also S.M., Course X-A and M.B.A., Course XV) Thesis in the field of Chemical Engineering Practice submitted to the Department of Chemical Engineering: Decarbonizing Long-Haul Trucking

### Taigyu Joo

Thesis in the field of Chemical Engineering: Post-Synthetic Chemical and Morphological Modifications of Polymer Membranes for Gas Separations

#### William John Kammerer III

Thesis in the field of Space Systems submitted to the Department of Aeronautics and Astronautics: Development of Optical Communication Terminals for Increasing Connectivity on Small Satellites

#### Ha Eun Kang

(February, 2024) Thesis in the field of Mechanical Engineering: Empowering Data Sharing in Smart Manufacturing Through Homomorphic Encryption

### Elijah Karvelis

Thesis in the field of Biological Engineering: Computational Approaches for Understanding and Redesigning Enzyme Catalysis

#### Mehrdad Khani Shirkoohi

(September, 2023) Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Continuous Learning for Lightweight Machine Learning Inference on Edge

#### Alexander Antony Khechfe

(September, 2023) Thesis in the field of Chemical Engineering: Promotion of Heterogeneous Acid and Base Catalysts for Biomass Upgrading

#### **Bharat Khurana**

Thesis in the field of Materials Science and Engineering: Pulsed Laser Deposited Iron Garnet Thin Films for Spintronics

#### Kruthika Kikkeri

Thesis in the field of Electrical Engineering and Computer Science: Low-Cost Electronic Microfluidics for Multiplexed Point-of-Care Biomarker Detection

### Albert Kim

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Optimizing Queries with Disjunctions

#### Do Hun Kim

Thesis in the field of Bioengineering submitted to the Department of Biological Engineering: Quantitative Analysis of Phosphoproteomics for KRAS Signaling Network Characterization

#### Lohyun Kim

Thesis in the field of Mechanical Engineering: Design and Modeling of Nanostructured Palladium-Based Hydrogen-Selective Membranes

### Sangwoon Kim

Thesis in the field of Mechanical Engineering: TEXterity: Tactile Extrinsic deXterity

### Suyong Kim

Thesis in the field of Mechanical Engineering: Combustion Physics and Inverse Modeling of Energetic Materials

#### Taekyong Kim

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Switching Dynamics in Ferroelectric Hf<sub>0.5</sub>Zr<sub>0.5</sub>O<sub>2</sub> Devices: Experiments and Models

### **Ethan Avram Klein**

(September, 2023)

Thesis in the field of Nuclear Science and Engineering: Neutron Resonance Transmission Analysis of Nuclear Material Using a Portable D-T Neutron Generator

#### Grant Alexander Knappe

Thesis in the field of Chemical Engineering: Development of a Structural Nucleic Acid Delivery Vector Technology

### Ching-Yun Ko

Thesis in the field of Electrical Engineering and Computer Science: Charting the Landscape: Adversarial Robustness, Representation Learning, and the Quest for Human-Aligned AI

#### Florian Koehler

Thesis in the field of Electrical Engineering and Computer Science: Magnetic Tools for Neural Interfacing

#### Ekaterina R. Kononov

Thesis in the field of Space Systems submitted to the Department of Aeronautics and Astronautics: Synthesis Imaging with Vector Sensor Arrays

### Andrew Normand Kopeikin

(February, 2024) Thesis in the field of Aeronautics and Astronautics: System-Theoretic Safety Analysis for Teams of Collaborative Controllers

#### Alexander E. Kossak

Thesis in the field of Materials Science and Engineering: Reversible and Irreversible Effects of Magneto-Ionic Gating: Exchange, Anisotropy, and Magnetization

### Akshay Kothakonda

Thesis in the field of Aeronautics and Astronautics: Engineering Mechanical Counter Pressure Spacesuits and Compression Garments: Active Pressurization and Design for Mobility

### Irene Agnes Kuang

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Handheld MRI for Point-of-Care and **Educational Applications** 

### Ashwin Srinivasan Kumar

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Targeting B Lymphocytes to Improve Therapeutic Outcomes for Pediatric Medulloblastoma

#### Gil Kur

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: On The Performance Of The Maximum Likelihood Over Large Models

#### Ivan Kuraj

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Synthesis-Aided Development of Distributed Programs

#### William Henry Kuszmaul

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Randomized Data Structures: Modern Perspectives and Hidden Surprises

#### Soonhyoung Kwon

(February, 2024) Thesis in the field of Chemical Engineering: Enhancing Zeolite Synthesis with Tailored Structure-Directing Agents (SDAs) and High-Throughput Platform

#### Peter Lalor

Thesis in the field of Computational Nuclear Science and Engineering: Reconstructing the Atomic Number of Cargo X-ray Images Using Dual Energy Radiography

#### **Christian Landeros**

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Machine-Guided Biopsy Analysis in Oncology: Facilitating Diagnostic Access and Biomedical Discovery Through Deep Learning

#### Alina Dale LaPotin

(February, 2024) Thesis in the field of Mechanical Engineering: Characterization of Thermophotovoltaics and Materials for High-Temperature Thermal Energy Storage

### Hong Anh Anna Le

(September, 2023) Thesis in the field of Biological Engineering: Functional Genomic and Transcriptomic Tools for Spatial and Dynamic Phenotypes

#### Benjamin David Leaker

(February, 2024)

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Biological and Biomechanical Effects of Direct Perturbation of Tissue Structure in the Cirrhotic Liver

#### **Guillaume Paul Olivier Leclerc**

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Robust Computer Vision: Beyond Lp Adversaries

#### Byung Hun Lee

Thesis in the field of Materials Science and Engineering: Magnetization Dynamics in Multi-Sublattice Magnetic Materials

### Cheng Feng Gary Lee

(September, 2023)

Thesis in the field of Electrical Engineering and Computer Science: Machine Learning for Data-Driven Signal Separation and Interference Mitigation in Radio-Frequency Communication Systems

#### Hyunhee Lee

(September, 2023) Thesis in the field of Chemical Engineering: Multidimensional MOFs Mixed Matrix Membranes for Efficient Gas Separation

### Kyungmi Lee

Thesis in the field of Electrical Engineering and Computer Science: Towards Secure Machine Learning Acceleration: Threats and Defenses Across Algorithms, Architecture, and Circuits

#### Serin Lee

Thesis in the field of Materials Science and Engineering: In Situ Electron Microscopy of Nanomaterials Dynamics in Heterogeneous Phase Environments

### Stephen James Lee

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Electricity Demand and Energy for Growth: A Data Fusion Approach

#### Eric Lehman

Thesis in the field of Electrical Engineering and Computer Science: Practical Considerations For the Deployment of Clinical NLP Systems

#### Jonas Lehmann

Thesis in the field of Civil and Environmental Engineering: Quantitative Modeling for Guiding the Transition to Low-Carbon Logistics

### Kyle Ravi Lennon

(September, 2023)

Thesis in the field of Chemical Engineering: Mathematics, Methods, and Models for Data-Driven Rheology

#### Bianca Arielle Lepe

Thesis in the field of Bioengineering submitted to the Department of Biological Engineering: Development of In Silico Subunit Vaccines and a Surface Modification Platform for Mycobacterium Tuberculosis

### Kathleen Marie Lewis

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Application-Driven Generative and Multimodal Methods

### Buxuan Li

(February, 2024)

Thesis in the field of Mechanical Engineering and Computation submitted to the Department of Mechanical Engineering: Engineering Thermal Conductivity and Elastocaloric Effects in Polymer Fibers of Variable Crystallinity

#### Clement Li

Thesis in the field of Air Transportation Systems submitted to the Department of Aeronautics and Astronautics: Hierarchical Behavior Models for Airspace Characterization and Trajectory Prediction

#### Hao Li

(September, 2023) Thesis in the field of Mechanical Engineering: Problem Solving in Engineering with Multiple Solution Methods

#### Haochuan Li

Thesis in the field of Electrical Engineering and Computer Science: The Role of Smoothness and Adaptivity in Nonlinear Optimization for Machine Learning

#### Lingxiao Li

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Scalable Methodologies for Optimizing Over Probability Distributions

#### Linsen Li

Thesis in the field of Electrical Engineering and Computer Science: Heterogeneous Integration of Spin-Photon Interfaces with a Scalable CMOS Platform

#### Shuang Li

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: **Enabling Compositional Generalization** of AI Systems

#### Yunpo Li

(February, 2024)

Thesis in the field of Civil and Environmental Engineering: Evaluation, Prediction, and Monitoring of Methane Emission from Oil and Gas Development

#### Qiaohao Liang

Thesis in the field of Computational Materials Science and Engineering submitted to the Department of Materials Science and Engineering: Physics-Based and Data-Driven Modeling of Multi-Active Material Electrode Batteries

#### Qianli Liao

(February, 2024)

Thesis in the field of Electrical Engineering and Computer Science: Understanding Neural Networks from Theoretical and Biological Perspectives

### Wei Liao

Thesis in the field of Electrical Engineering and Computer Science: Machine Learning for Sepsis Prognosis: Prediction Models and Dissecting Electronic Health Records

#### Miles Thelonious Keylor Lifson

Thesis in the field of Aeronautics and Astronautics: Low Earth Orbit Spacecraft Slotting: Towards an Implementable Proposal

#### Paul Lilin

Thesis in the field of Mechanical Engineering: Fracture Morphologies in Particulate Suspensions

#### Ji Lin

(February, 2024) Thesis in the field of Electrical Engineering and Computer Science: Efficient Deep Learning Computing: From TinyML to LargeLM

#### Yen-Chen Lin

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Neural Fields for Robotics

#### Geoffrey Kazuyuki Litt

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Building Personal Software with Reactive Databases

#### Fan Liu

Thesis in the field of Mechanical Engineering: Intercellular Flow-Mediated Force Relaxation Measurement on the Three-Dimensional Multicellular Tissue

### Sandra Qi-Jun Liu

(February, 2024) Thesis in the field of Mechanical Engineering: Soft, Compliant Tactile Robotic Manipulators

#### Yixi Liu

Thesis in the field of Electrical Engineering submitted to the Department of Electrical Engineering and Computer Science: Toward Ultra-Resolution Biomolecular Mapping in Cells with **Expansion Microscopy** 

### Yunpeng Liu

Thesis in the field of Mechanical Engineering: Remote Epitaxy by In-Situ Grown BN and InGaN Strain Relaxation

#### Zhijian Liu

Thesis in the field of Electrical Engineering and Computer Science: Efficient Deep Learning with Sparsity: Algorithms, Systems, and Applications

#### Charlotte Chang Le Loh

Thesis in the field of Electrical Engineering and Computer Science: Scalable Representation Learning: On Data-Scarcity, Uncertainty and Symmetry

### Lee Gabriel Lopez

Thesis in the field of Aeronautics and Astronautics: Large-Eddy Simulation of Hypersonic Shock-Wave Boundary-Layer Interaction with Wall Cooliing

#### Georgios Lordos

(February, 2024) Thesis in the field of Space Systems submitted to the Department of Aeronautics and Astronautics: Engineering Autocatalytic and Robust Architectures for Human Missions to

### **Daniel James Lundberg**

(February, 2024)

Thesis in the field of Chemical Engineering: Design and Engineering of Carbon Fixing Material Systems

### David James Lundberg

(February, 2024)

Thesis in the field of Chemical Engineering: Control and Prediction of Polymer Network Structure and Connectivity for Sustainability, Stimuli-Response, and Catalytic Function

### Parker Chase Lusk

(September, 2023)

Thesis in the field of Autonomous Systems submitted to the Department of Aeronautics and Astronautics: Data Association Algorithms and Representations for Robust Geometric Perception

#### Wei-Chiu Ma

(February, 2024)

Thesis in the field of Electrical Engineering and Computer Science: Learning 3D Modeling and Simulation from and for the Real World

#### Fiona Katherine Macleod

(September, 2023)

Thesis in the field of Health Sciences and Technology submitted to the Harvard-MIT Program in Health Sciences and Technology: Investigating the Fidelity of Classic Cardiovascular Metrics in the Context of a Failing and Mechanically Supported Heart

### Ipek Bensu Manav

(February, 2024)

Thesis in the field of Civil and Environmental Engineering: Assessing the Intersectional Risks Associated with the Full Life Cycle of the U.S. Housing Stock

#### Tobia Marcucci

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Graphs of Convex Sets with Applications to Optimal Control and Motion Planning

#### Gustavo Marques Hobold

(September, 2023)

Thesis in the field of Mechanical Engineering: Quantitative Solid Electrolyte Interphase-based Descriptors for Lithium Liquid Electrolyte Design

#### María Carmen Martín Alonso

(February, 2024)

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Amplifying Signals in the Tumor Microenvironment for Drug Development and Diagnostics

### Suzane Martins Cavalcanti

(February, 2024)

Thesis in the field of Chemical Engineering and Computation: Nonsmooth Distillation Models Robust to Convergence Errors: Numerical Methods and Topological Aspects

### Gustavo Matana Aguiar

(February, 2024)

Thesis in the field of Nuclear Science and Engineering: Infrared Thermometry Analysis of Surface Effects in Subcooled and Saturated Boiling of Water

#### Joana Matos Fonseca da Trindade

(February, 2024)

Thesis in the field of Electrical Engineering and Computer Science: Systems and Techniques for Efficient Temporal Graph Analytics

#### Thomas Paul Matson

Thesis in the field of Materials Science and Engineering: Phase-and-Defect Diagrams for Polycrystalline Grain **Boundary Segregation** 

### Eli Mattingly

(February, 2024)

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Design, Construction, and Validation of Magnetic Particle Imaging Systems for Rodent, Primate and Human Functional Neuroimaging

#### Kayla Marisa McCue

Thesis in the field of Computational and Systems Biology: Interpretable Computational Modeling of Pre-mRNA Splicing for Multiple Eukaryotic Species

#### Vincent Rudolf Meijer

Thesis in the field of Aerospace, Energy, and the Environment submitted to the Department of Aeronautics and Astronautics: Satellite-Based Analysis and Forecast Evaluation of Aviation Contrails

#### Aaron Max Melemed

Thesis in the field of Mechanical Engineering: Modulating the Electrochemistry of Calcium Metal Anodes

#### Vincent Nevan Miao

(September, 2023)

Thesis in the field of Health Sciences and Technology submitted to the Harvard-MIT Program in Health Sciences and Technology: Profiling Host Respiratory Responses to SARS-CoV-2 Infection

#### Christina Paula Migliore

Thesis in the field of Nuclear Science and Engineering: Development of the "Stix" Code, a Radio Frequency (RF) Wave Solver, to Investigate RF-Sheath Behavior in Realistic Tokamak Geometry

#### John Paul Mikhail

(February, 2024)

Thesis in the field of Chemical Engineering: Understanding the Mechanisms of Shock-Induced Deformation in Polymeric Systems

#### Benjamin Miller

(February, 2024)

Thesis in the field of Mechanical Engineering: Design, Fabrication, and Application of Bioinspired Soft Photonic Materials

#### **Daniel Martin Miller**

Thesis in the field of Aeronautics and Astronautics: Small-Body and Heliophysics Missions using Hybrid Low-Thrust Propulsion

#### Julia Milton

(September, 2023)

Thesis in the field of Aeronautics and Astronautics: Scenario-Based Uncertainty Quantification for Deep Space Optical Communications

#### Fabian Mohr

(See also M.B.A., Course XV) Thesis in the field of Chemical Engineering Practice submitted to the Department of Chemical Engineering: Smart Data Analytics for Manufacturing

### Intae Moon

Thesis in the field of Electrical Engineering and Computer Science: Trustworthy and Reliable AI for Evidence-based Clinical Decision Support in Cancer Care

#### Rachel E. Morgan

(September, 2023)

Thesis in the field of Space Systems submitted to the Department of Aeronautics and Astronautics: Germanium on Silicon Integrated Photonics for the Mid-Wave Infrared

#### Klara Mundilova

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Gluing and Creasing Paper along Curves: Computational Methods for Analysis and Design of Compositions of Developable Surfaces

#### Varun Murali

(February, 2024)

Thesis in the field of Aeronautics and Astronautics: Perception-Aware Planning for Differentially Flat Robots

#### Michael Alexander Murphy

(February, 2024)

Thesis in the field of Computational and Systems Biology: Machine Learning Methods for High-Throughput Biological

#### Parimarjan Negi

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Machine Learning for Query Optimization in Presence of Workload Drift

### Suchita P. Nety

(September, 2023)

Thesis in the field of Biological Engineering: The Transposon-Encoded Protein TnpB is an RNA-Guided Nuclease

#### Thanh Nguyen

Thesis in the field of Quantum Science and Engineering submitted to the Department of Nuclear Science and Engineering: Spectroscopy of Topological Materials and Their Technological Applications

#### Tin Danh Nguyen

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Toward Faster Methods in Bayesian Unsupervised Learning

#### Martin Eric William Nisser

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Computational Fabrication and Assembly for In Situ Manufacturing

#### Milica Notaros

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Integrated Visible-Light Platforms, Devices, and Systems for Augmented

#### Michael Karl Oberst

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Towards Rigorously Tested and Reliable Machine Learning for Health

#### Willis Cooper O'Leary

Thesis in the field of Materials Science and Engineering: Combining Experiments and First-Principles Calculations to Understand and Engineer Metal Exsolution in Perovskites

#### Chelsea Nneka Onyeador

Thesis in the field of Aerospace Computational Engineering submitted to the Department of Aeronautics and Astronautics: Multi-Fidelity Gaussian Process Regression for Aerodynamic Boundary Layer CFD Applications

#### Nils Pachler de la Osa

Thesis in the field of Aeronautics and Astronautics: Optimizing Resource Allocation in Large Communications Satellite Constellations

#### **Cody Alison Paige**

(September, 2023)

Thesis in the field of Aeronautics and Astronautics: Enabling a Permanent Human Presence beyond Low Earth Orbit: Wearable Radiation Protection and Enhanced Science Through Virtual Reality

#### **David Robert Palmer**

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Relaxing Topological Barriers in Geometry Processing

#### Subeen Pang

Thesis in the field of Mechanical Engineering and Computation submitted to the Department of Mechanical Engineering: Scalar Scattering Theory and Physics-inspired Optimization for Computational Imaging

### Jonathan S. Paras

(September, 2023)

Thesis in the field of Materials Science and Engineering: An Irreversible Thermodynamic Formalism of the Electronic Contribution to the Entropy in Metals

#### Soyun Park

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Designing Inclusivity in Collaborative Technology

#### Mirae Leigh Parker

(February, 2024)

Thesis in the field of Computational and Systems Biology: New Tools for Measuring and Analyzing Bacterial Gene Expression Dynamics.

#### Aniket Sanjay Patankar

(September, 2023)

Thesis in the field of Mechanical Engineering: System and Reactor Design, and Materials Testing, for Efficient Thermochemical Solar Fuel Production in Temperature/Pressure Swing Redox Cycles

#### Sarath Pattathil

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Optimization and Generalization of Minimax Algorithms

#### Cadence Brea Payne

(February, 2024)

Thesis in the field of Aeronautics and Astronautics: Nanosatellite Hyperspectral Imaging Performance Modeling for Ocean Color Detection.

### **Kaidong Peng**

(September, 2023)

Thesis in the field of Electrical Engineering and Computer Science: The Quest for Ideal Quantum Amplifiers

#### Tianyi Peng

(September, 2023)

Thesis in the field of Aeronautics and Astronautics and Statistics submitted to the Department of Aeronautics and Astronautics: Learning from Commerce Data: From Theory to Practice

#### Nili Persits

Thesis in the field of Electrical Engineering submitted to the Department of Electrical Engineering and Computer Science: Chemical Sensing as a Utility using Swept-Source Raman Spectroscopy

#### Gustav Mikael Pettersson

Thesis in the field of Aeronautics and Astronautics: Deep-Space Exploration Enabled by CubeSats with Staged **Electrospray Propulsion** 

#### Eric A. Ponce

(September, 2023)

Thesis in the field of Electrical Engineering submitted to the Department of Electrical Engineering and Computer Science: Measurement and Modeling for Resource Monitoring

#### **Allison Paige Porter**

Thesis in the field of Health Sciences and Technology: Medical Engineering and Bioastronautics submitted to the Harvard-MIT Program in Health Sciences and Technology: Automation Framework for Exploration Medicine (AFEM): A Path for Integrating Automation into Autonomous Emergency Care

#### Rachel Elaine Price

(September, 2023)

Thesis in the field of Aeronautics and Astronautics: Data-Driven Detection of En-Route Convective Weather Avoidance and Development of a Weather Assessment Model

#### Krista Michelle Pullen

Thesis in the field of Biological Engineering: Data-Driven Translation of the Pathogen-Induced Immune Responses Across Species

#### Mohammad Mowafaq Qasim

Thesis in the field of Electrical Engineering and Computer Science: Design of High-Speed, High-Specific-Power Motor Drives for Megawatt Aircraft Applications

#### Rumya S. Raghavan

(February, 2024)

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Engineering Minimally Immunogenic Cargos and Delivery Modalities for Gene Therapy

### Aniruddh Raghu

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Data-Efficient Machine Learning with Applications to Cardiology

### Michelle L. Ramseier

(February, 2024)

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Co-optation of B Cell Developmental States in Malignancy and Autoimmunity

#### Basuhi Ravi

(February, 2024)

Thesis in the field of Materials Science and Engineering: Barriers to Recycling Plastics in the United States

#### Madhumitha Ravichandran

Thesis in the field of Nuclear Science and Engineering: Autonomous Experimentation to Accelerate Boiling Heat Transfer Research

### Jessica Morgan Ray

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: A Universal Tensor Abstraction and Its Application to and Implementation within Block-Based Compression

### Nathan Jude Rebello

(February, 2024) Thesis in the field of Chemical Engineering: Predicting Properties of Polymer Networks Using Analytical Theory and Data-Driven Approaches

### Kelsey Maia Reed

(February, 2024)

Thesis in the field of Chemical Engineering: Self-Assembly of Attractive and Polarizable Colloids

#### Marlyse Helena Reeves

Thesis in the field of Computer Science submitted to the Department of **Electrical Engineering and Computer** Science: Magellan: A Risk-Bounded Plan Executive for Nonlinear, Stochastic Mobile Agents

#### Danyal Rehman

(February, 2024)

Thesis in the field of Mechanical Engineering and Computation submitted to the Department of Mechanical Engineering: Physics-Constrained Deep Learning and Differentiable Mechanistic Models for Multicomponent Transport Phenomena

#### Kate Reidy

Thesis in the field of Materials Science and Engineering: Atomic-Scale Design at the 2D/3D Interface using Electron Microscopy

#### Zhichu Ren

Thesis in the field of Materials Science and Engineering: Accelerating Novel Energy Catalyst Discovery Using Automation, Active Learning, and AI

#### Alexander Dominic Renda

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Programming with Neural Surrogates of Programs

#### **Thomas González Roberts**

Thesis in the field of Aeronautics and Astronautics: Measuring Compliance to the International Telecommunication Union's Geosynchronous Orbital Assignments

### Joshua David Robinson

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Modeling the Geometry of Neural Network Representation Spaces

#### John W. Romanishin

Thesis in the field of Mechanical Engineering: Self-Assembling Modular Systems: Enhancing Efficiency and Accuracy in Robotic Lattice Assembly

#### Luca Rosalia

(September, 2023)

Thesis in the field of Health Sciences and Technology submitted to the Harvard-MIT Program in Health Sciences and Technology: Soft Robotic Platforms for the Simulation of Cardiovascular Disease and Device Development

#### Jana I. Saadi

(February, 2024)

Thesis in the field of Mechanical Engineering: Generative Design Tools: Implications on Design Process, Designer Behavior, and Design Outcomes

### Sandro Salgueiro Rodrigues Filho

(February, 2024)

Thesis in the field of Air Transportation Systems submitted to the Department of Aeronautics and Astronautics: Increasing Flexibility in the Design and Operation of Instrument Flight Procedures

#### Noah James Salk

Thesis in the field of Electrical Engineering submitted to the Department of Electrical Engineering and Computer Science: A Class of High-Efficiency Air-Core Power Transformers with Flux-**Guiding Resonators** 

#### Hadi Salman

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Towards ML Models That We Can Deploy Confidently

#### Lluís Saló Salgado

(February, 2024)

Thesis in the field of Geotechnical and Geoenvironmental Engineering submitted to the Department of Civil and Environmental Engineering: Numerical Modeling of Geologic Carbon Dioxide Storage in Faulted Siliciclastic Settings

#### Nikola Samardzic

Thesis in the field of Electrical Engineering and Computer Science: Practical Cryptographically Private and Verifiable Computation through Hardware-Software Co-Design

#### Eli Andres Sanchez

Thesis in the field of Nuclear Science and Engineering: Conventional Precision-Guided Hypersonic Weapons: An Unconventional Threat to Strategic Stability?

### Sara Catherine Sand

Thesis in the field of Materials Science and Engineering: Understanding Ion Conduction Mechanisms in Polymer-Ceramic Composite Electrolytes for Lithium Ion Batteries

#### Luciano Santollani

Thesis in the field of Chemical Engineering: Engineering Cytokine Immunotherapies via Cell Surface Targeting

#### William James Sawyer

(September, 2023) Thesis in the field of Mechanical Engineering: Aerosol Carbon Nanotube Production via Scalable Microplasma Synthesis of Catalyst Nanoparticles

#### Rachel Beth Schaefer

Thesis in the field of Civil and Environmental Engineering: Exploring Connections Between Seagrass Ecosystem Services and Meadow Hydrodynamics

#### **Daphne Esther Schlesinger**

Thesis in the field of Health Sciences and Technology submitted to the Harvard-MIT Program in Health Sciences and Technology: Physiology-Inspired Deep Learning for Improved Heart Failure Management

#### Chockalingam Senthilnathan

Thesis in the field of Materials and Structures submitted to the Department of Aeronautics and Astronautics: Understanding the Mechanics of Growth: A Large Deformation Theory for Coupled Swelling-Growth and Morphogenesis of Soft Biological Systems

#### Tim Niklas Seyde

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Efficient Learning Control via Structural Policy Priors, Latent World Models and Hierarchical Abstraction

#### Xiaoyu Shan

(September, 2023) Thesis in the field of Civil and Environmental Engineering: Identifying Functional Groups in Microbial Communities Based on Ecological Patterns

#### Divya M. Shanmugam

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Steering Machine Learning Towards Equity & Reliability

#### Prafull Sharma

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Learning Low-Level Priors from Images for Inference and Synthesis

#### Carolyn Rose Sheline

(February, 2024)

Thesis in the field of Mechanical Engineering: Design of an Affordable, Precise Irrigation Controller that Lowers the Barrier to Water- and Energy-Sustainable Agriculture

#### **Sydney Elaine Sherman**

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Single-Sided Magnetic Resonance Sensors for Clinical Detection of Volume Status

#### Liang Shi

Thesis in the field of Computer Science submitted to the Department of Electrical **Engineering and Computer Science:** Towards Passing Visual Turing Test with Computational 3D Displays and Appearance Modeling

#### Miriam Eve Shiffman

Thesis in the field of Computational and Systems Biology: Uncertainty & Robustness for Single-Cell Studies

### Pao-Chuan Shih

(September, 2023)

Thesis in the field of Electrical Engineering submitted to the Department of Electrical Engineering and Computer Science: Vacuum Transistors Based on III-Nitrides Field Emitter Arrays with Self-Aligned-Gate

#### Thomas Scott Silver

Thesis in the field of Electrical Engineering and Computer Science: Neuro-Symbolic Learning for Bilevel Robot Planning

### Sandeep B. Silwal

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Efficient Algorithms for Vector Similarities

#### Manish Singh

(September, 2023)

Thesis in the field of Electrical Engineering and Computer Science: Data Science in Investment Management

#### Nalini M. Singh

(September, 2023)

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Physics-Inspired Deep Learning for Inverse Problems in MRI

#### **Anubhav Sinha**

(September, 2023)

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Spatially Precise in situ Transcriptomics in Intact Biological

#### Vibhaalakshmi Sivaraman

(February, 2024)

Thesis in the field of Electrical Engineering and Computer Science: Towards Practical and Robust Neural Video Conferencing

#### Samuel Ronald Sledzieski

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Learning the Language of Biomolecular Interactions

#### Hanjun Song

(September, 2023)

Thesis in the field of Mechanical Engineering: Shared Control Based on Predictability Analysis With Application to Human-SuperLimb Collaboration

#### Kevin Anton Spiekermann

(September, 2023)

Thesis in the field of Chemical Engineering: Enabling Accurate and High-Throughput Kinetic Predictions via Message Passing Neural Networks

#### **Jordan Andrew Stinson**

Thesis in the field of Biological Engineering: Engineering Approaches to Overcome Immunosuppression Through Localized Tumor Microenvironment Reprogramming

#### Austin J. Stromme

(September, 2023)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Statistical Aspects of Optimal Transport

#### Tingyu Su

(February, 2024) Thesis in the field of Mechanical Engineering: Templated Multiferroic Nanocomposites by Ion-Lithography

#### Joseph Suárez

Thesis in the field of Electrical Engineering and Computer Science: Neural MMO: Massively Multiagent Simulation and Learning

#### Deepak Adarsh Subramanian

(February, 2024)

Thesis in the field of Chemical Engineering: Developing Methods of Selective, Location-Specific Drug Delivery in the Gastrointestinal Tract

#### Suleeporn Sujichantararat

(February, 2024)
Thesis in the field of Electrical
Engineering and Computer Science:
A Simulated Annealing Approach to
Designing Optimal Decision Trees for
Classification, Prescriptive, and Survival
Analysis

### Andrea Tagliabue

Thesis in the field of Autonomous Systems submitted to the Department of Aeronautics and Astronautics: Efficient Imitation Learning for Robust, Adaptive, Vision-based Agile Flight Under Uncertainty

#### Aik Rui Tan

Thesis in the field of Computational Materials Science and Engineering submitted to the Department of Materials Science and Engineering: Enhancing Robustness of Neural Network Interatomic Potentials through Sampling Methods and Uncertainty Quantification

#### Wenhui Tang

Thesis in the field of Mechanical Engineering: Geometry, Packing, and Synchronization in Three-dimensional (3D) Multicellular Development and Diseases

#### Yulun Tian

(September, 2023)

Thesis in the field of Autonomous Systems submitted to the Department of Aeronautics and Astronautics: Algorithms and Systems for Scalable Multi-Agent Geometric Estimation

#### Yuxuan Tian

Thesis in the field of Chemical Engineering: Multiplexed, Scalable, and Functionality Compatible Platforms for 3D Spatially Resolved Proteomic Profiling

#### Jan Onchoke Tiepelt

Thesis in the field of Electrical Engineering submitted to the Department of Electrical Engineering and Computer Science: The Role of Triplet Exciton Lifetime in the Stability and Efficiency of Blue Phosphorescent OLEDs

#### **Tony Tohme**

Thesis in the field of Computational Science and Engineering submitted to the Department of Mechanical Engineering: Advances in Symbolic Regression: From Generalized Formulation to Density Estimation and Inverse Problem

#### Mohammed Abraham Toure

Thesis in the field of Biological Engineering: Pharmacological Modulation of Oncogenic Transcriptional Dysregulation

#### Vishrant Tripathi

(September, 2023)

Thesis in the field of Electrical Engineering and Computer Science: Information Freshness for Monitoring and Control over Wireless Networks

#### Lillian Yow Tsai

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Flexible Privacy via Disguising and Revealing

#### Megan Wai-Yang Tse

Thesis in the field of Biological Engineering: Discovering Antibiotic Adjuvants Against the Gram-Negative ESKAPE Pathogens

#### **Nutth Tuchinda**

(September, 2023)

Thesis in the field of Materials Science and Engineering: Polycrystalline Grain Boundary Solute Segregation at Finite Sizes and Temperatures

#### Mycal D. Tucker

Thesis in the field of Computational Science and Engineering: Using Principles from Cognitive Science to Analyze and Guide Language-Related Neural Networks

#### Dishita Girish Turakhia

Thesis in the field of Electrical Engineering and Computer Science: Designing Learner-Centric Tools for Learning Physical Skills

#### Carmen-Ioana Ursachi

(February, 2024)

Thesis in the field of Aerospace Computational Engineering submitted to the Department of Aeronautics and Astronautics: A Stress-Equivalent Spalart-Allmaras Wall Model with Local Boundary Conditions for RANS, DES, and LES

### Jacqueline Alexus Valeri

(September, 2023)

Thesis in the field of Biological Engineering: Computationally-Guided Discovery and Design of Biological Sequences and Small Molecules

#### Georgia D. Van de Zande

(September, 2023)

Thesis in the field of Mechanical Engineering: Bringing the Water-Efficiency Benefits of Precision Irrigation to Resource-Constrained Farms Through an Automatic Scheduling-Manual Operation Irrigation Tool

### Matthew Christopher VanBeek

(September, 2023)

Thesis in the field of Chemical Engineering: Interplay between Extra-Germinal Center Expansion of Memory B Cells and Affinity Maturation during the Humoral Recall Response

### Arsen Vasilyan

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Enhancing Learning Algorithms via Sublinear-Time Methods

#### Nathan W. Volchko

(February, 2024) Thesis in the field of Chemical Engineering: Understanding Heterogeneous Nucleation Mechanisms in Polyolefins

### Jun Wan

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Improving Performance of Consensus Protocols

#### **Chonghe Wang**

Thesis in the field of Mechanical Engineering: Full Body, Continuous, Wearable Ultrasound

#### Hanrui Wang

Thesis in the field of Electrical Engineering and Computer Science: Toward Practical Quantum Computing Systems with Intelligent Cross-Stack Co-Design

#### Miaorong Wang

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Efficient Algorithms, Hardware Architectures and Circuits for Deep Learning Accelerators

### Qing Yi Wang

(February, 2024)

Thesis in the field of Transportation submitted to the Department of Civil and Environmental Engineering: Innovations in Urban Computing: Uncertainty Quantification, Data Fusion, and Generative Urban Design

### Yu Wang

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Geometric Computing beyond the Laplacian

### Yu-Jou Wang

(February, 2024)

Thesis in the field of Nuclear Science and Engineering: A Structure-Based Machine Learning Approach For Spatial-Temporal Fluctuations in Nuclear Thermal Fluids

#### Noreen Angelina Wauford

(February, 2024)

Thesis in the field of Biological Engineering: Inducible Mammalian Genetic Switch Circuits for Applications in Programmable Therapeutics and Synthetic Morphogenesis

#### Aaron Michael West, Ir.

Thesis in the field of Mechanical Engineering: All Models are Wrong, Simple Models Provide Insight: A Study of Human Manipulation

#### Jongchan Woo

Thesis in the field of Electrical Engineering submitted to the Department of Electrical Engineering and Computer Science: Energy-Efficient Hardware Architectures for Enhanced Secure Communication Systems

#### Xinyu Wu

Thesis in the field of Communications and Networks submitted to the Department of Aeronautics and Astronautics: Analysis and Optimization of Networks in Overload

#### Amy Xiao

(September, 2023) Thesis in the field of Biological Engineering: Surveillance of SARS-CoV-2: From Sewage to the Clinic

#### Qingyun Xie

(February, 2024) Thesis in the field of Electrical Engineering and Computer Science: Gallium Nitride Integrated Circuits Based on a p-GaN Platform

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: On Physics-Inspired Generative Models

### Zhongxia Yan

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Towards Learning-Guided Search for Coordination of Multi-Agent Transportation at Scale

#### Fan Yang

(September, 2023) Thesis in the field of Materials Science and Engineering: Multi-Functional Flat Optics for Imaging and Sensing

#### Grace Helen Yang

(February, 2024) Thesis in the field of Chemical Engineering: Thermally Drawn Piezoelectric Fibers Impart Acoustic Functionality to Fabrics

#### Leerang Yang

(February, 2024) Thesis in the field of Chemical Engineering: Computational Study of Vaccination Strategies to Change B Cell Immunodominance

#### Lei Yang

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Efficient Consensus and Synchronization for Distributed Systems

#### Mingyu Yang

Thesis in the field of Medical Engineering and Medical Physics submitted to the Harvard-MIT Program in Health Sciences and Technology: Myelination Diseases of the Central Nervous System: Artificial Axons as In Vitro Models of Chemomechanical Cues

#### Yifan Yang

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Effective and Flexible Acceleration of Sparse Computations

#### Yuzhe Yang

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Machine Learning Approaches that Extend Healthcare: Algorithms & Applications

#### **Zhenze Yang**

Thesis in the field of Materials Science and Engineering: Using Deep Learning to Understand and Design Heterogeneous Materials

#### Kevin Ye

Thesis in the field of Materials Science and Engineering: Properties and Processing of Chalcogenide Perovskites

#### Yufeng Ye

Thesis in the field of Electrical Engineering submitted to the Department of Electrical Engineering and Computer Science: The Quarton Coupler for Near-Ultrastrong Nonlinear Light-Matter Coupling in Superconducting Circuits

#### **Matthew Yeung**

Thesis in the field of Electrical Engineering and Computer Science: Lightwave Electronics Based on Nanoantenna Networks

#### Yip Fun Yeung

(February, 2024) Thesis in the field of Mechanical Engineering: Intelligent Fault Detection for Non-Stationary Dynamical Systems

#### Victor Alan Ying

(September, 2023) Thesis in the field of Electrical Engineering and Computer Science: Compiler-Hardware Co-Design for Pervasive Parallelization

#### Andrew Christopher Yu

Thesis in the field of Electrical Engineering and Computer Science: Lab-to-Fab Monolithic 3D Integrated Carbon Nanotube Transistors: Scaling and Reliability

### Shangdi Yu

Thesis in the field of Electrical Engineering and Computer Science: Parallel Algorithms, Optimizations, and Benchmarks For Spatial and Graph Clustering

### Tianyi Zeng

(February, 2024) Thesis in the field of Electrical Engineering submitted to the Department of Electrical Engineering and Computer Science: Development of Broadband Semiconductor Laser Frequency Combs

#### Xiyu Zhai

Thesis in the field of Electrical Engineering and Computer Science: Towards Effective Theories for Deep Learning and Beyond

#### Molin Zhang

Thesis in the field of Electrical Engineering and Computer Science: Motion-Robust Machine Learning Methods for Region-of-Interest Tracking and Selective Magnetic Resonance Imaging with External Shim Arrays

### Yuening Zhang

(February, 2024) Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Effective Teamwork Using a Theory of Mind Over Plans

### Allan Zhao

(February, 2024)

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Transition-Aware Design Optimization of Winged VTOL Drones

### Zijie Zhao

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: Next-Generation Intelligent Portfolio Management: Advancements in Natural Language Processing and Deep Reinforcement Learning for Financial Decision-Making

### Cheng Zheng

Thesis in the field of Mechanical Engineering and Computation submitted to the Department of Mechanical Engineering: Redefining the Design Pipeline in Computational Imaging

### Yunhan Zheng

(February, 2024)

Thesis in the field of Transportation submitted to the Department of Civil and Environmental Engineering: Carrots and Sticks in Green Moves: Assessing the Mobility, Environmental, Economic, and Social Impacts of Sustainable Mobility Solutions

#### Junyi Zhu

Thesis in the field of Computer Science submitted to the Department of Electrical Engineering and Computer Science: From Systemic to Regional: Personal Health and Medical Monitoring Systems that Adapt to Individual Variance

#### Meilin Zhu

Thesis in the field of Biological Engineering: Multimodal Strategies to Modulate Health and Disease-Associated

## SCHOOL OF HUMANITIES, ARTS, AND SOCIAL SCIENCES, DOCTORAL

### Doctor of Philosophy

School of Humanities, Arts, and Social Sciences

#### Nasir Talal Almasri

Thesis in the field of Political Science: The Rise and Fall of Revolution in the Middle

#### **Daniel Asherov**

(September, 2023) Thesis in the field of Linguistics submitted to the Department of Linguistics and Philosophy: Metrical Grids and Active Edges

#### **Fulang Chen**

(September, 2023) Thesis in the field of Linguistics submitted to the Department of Linguistics and Philosophy: Obscured Universality in Mandarin

#### Viola Corradini

Thesis in the field of Economics: Essays in Labor and Education Economics

#### Roberto Corrao

Thesis in the field of Economics: Essay on the Economics of Information

### **Peter Michael Mason Cummings**

(February, 2024)

Thesis in the field of Political Science: The Foundations of Anti-System Protests in Democracy

### Filipe Hisao de Salles Kobayashi

(September, 2023)

Thesis in the field of Linguistics submitted to the Department of Linguistics and Philosophy: Quantifying over Individual Concepts

### Marc de la Barrera i Bardalet

Thesis in the field of Economics: Essays in Macro Economics

### Jasmine Hope English

Thesis in the field of Political Science: Essays on the Content and Consequences of Political Discussion

#### **Brandon Enriquez**

Thesis in the field of Economics: Essays in Labor Economics

#### Boer Fu

(September, 2023)

Thesis in the field of Linguistics submitted to the Department of Linguistics and Philosophy: Uncovering Mandarin Speaker Knowledge with Language Game Experiments

#### Ying Gao

Thesis in the field of Economics: Essays on Signaling and Disclosure

#### Matías Alberto Giannoni

(September, 2023)

Thesis in the field of Political Science: Firms, Labor Markets and Anti-System Politics: Essays on the Political Economy of Populism

#### Steven Gonzalez

(September, 2023) Thesis in the field of History, Anthropology, and Science, Technology, and Society submitted to the Program in Science, Technology, and Society: Cloud Ecologies: An Environmental Ethnography of Data Centers

#### Aja Oona Grande

Thesis in the field of History, Anthropology, and Science, Technology, and Society submitted to the Program in Science, Technology, and Society: He Lāhui Hawai'i Ma O Ka Ho'omomona Hou I Ka 'Āina: Nā Mo'olelo Lōkahi Ma Ka Mokupuni 'O O'ahu (A Hawaiian Nation Through The Restoration Of 'Āina Momona: Stories Of Unity-Among Ourselves, That Which Feeds, Community, And Spirit-On The Island Of O'ahu)

#### Peter Nicholas Grishin

(September, 2023)

Thesis in the field of Linguistics submitted to the Department of Linguistics and Philosophy: Lessons from CP in Passamaquoddy and Beyond

#### **Basil Halperin**

Thesis in the field of Economics: Essays in Monetary Policy and Growth

#### Jessica Anne Heine

Thesis in the field of Philosophy submitted to the Department of Linguistics and Philosophy: How Things Seem: Arbitrariness, Transparency, and Representation

#### Kathleen Renee Hintikka

(February, 2024) Thesis in the field of Philosophy submitted to the Department of Linguistics and Philosophy: Speech Therapy

#### Lisa Yen Zheng Ho

Thesis in the field of Economics: Essays in Development Economics

### Jacob Elias Jaffe

(September, 2023)

Thesis in the field of Political Science: New Methods and Perspectives on the Administration of American Elections

#### Adam Kaplan

Thesis in the field of Political Science and Statistics submitted to the Department of Political Science: Sequential Heterogeneous Treatment Effect Estimation for Dynamic Time-Series Cross-Sectional Data

### Mohit Karnani Bhagwan

(February, 2024)

Thesis in the field of Economics and Statistics: Essays on Empirical Matching Systems

#### **Bumsoo Kim**

Thesis in the field of Economics: Essays in International Economics and Macroeconomics

### Rorisang Nikiwe Lekalake

(September, 2023)

Thesis in the field of Political Science: Property, Place, and Politics: Essays on the Political Economy of Land in South Africa

#### Cora Lea Lesure

(September, 2023)

Thesis in the field of Linguistics submitted to the Department of Linguistics and Philosophy: Selecting for and Selecting Despite: A Javanese Case Study

#### Licheng Liu

Thesis in the field of Political Science and Statistics submitted to the Department of Political Science: Essays on Modeling and Casual Inference with Network and Longitudinal data

#### Zachary Daniel Markovich

(September, 2023)

Thesis in the field of Political Science and Statistics submitted to the Department of Political Science: Messy Measurement: Essays on Causal Inference With Unobserved Variables

#### John David Minnich

(September, 2023)

Thesis in the field of Political Science: Re-Innovation Nation: The Logic of Technology Transfer Policy in Rising China

#### Carlos Andres Molina Guerra

Thesis in the field of Economics: Essays on Political Economy

#### Lucy Elizabeth Page

Thesis in the field of Economics: Essays on the Economics of Climate Action

#### Elizabeth Knowles Parker-Magyar

Thesis in the field of Political Science: Workplace Networks and Organizational Autonomy in Contemporary Jordan

#### Joshua Edward Pearson

Thesis in the field of Philosophy submitted to the Department of Linguistics and Philosophy: Belief is Messy

#### Mina Erika Pollmann

(September, 2023)

Thesis in the field of Political Science: The Political Origins of Alliances

#### Apekshya Prasai

Thesis in the field of Political Science: Gendered Processes of Rebellion: Understanding Strategies for Organizing Violence

#### Kramer Michael Quist

Thesis in the field of Economics: Essays in Organizational Economics and Strategy

### Charles Maxwell Rafkin

Thesis in the field of Economics: Essays in Public and Behavioral Economics

#### Gabrielle Lydia Marie Robbins

(September, 2023)

Thesis in the field of History, Anthropology, and Science, Technology, and Society submitted to the Program in Science, Technology, and Society: Antimalarial Afterlives: Medicine for a Planetary Age from Madagascar

#### Vincent S Rouillard

(September, 2023)

Thesis in the field of Linguistics submitted to the Department of Linguistics and Philosophy: A Semantic Account of Distributional Constraints on Temporal in-Adverbials

#### Hannah Katherine Ruebeck

Thesis in the field of Economics: Essays on the Role of Identity in Economic and Political Behavior

#### Stuart Ehrlich Russell

(September, 2023)

Thesis in the field of Political Science: Politics within the State: Essays on Bureaucracy in Sub-Saharan Africa

#### Anna Elizabeth Russo

Thesis in the field of Economics: Essays in Environmental and Healthcare Market Design

### Jaeeun Seo

Thesis in the field of Economics: Essays in International Trade and Macroeconomics

### **Evan Joseph Soltas**

Thesis in the field of Economics: Tax Policy, Housing Markets, and Redistribution

### **Abigail Thwaites**

Thesis in the field of Philosophy submitted to the Department of Linguistics and Philosophy: Knowing How, Knowing Who, Knowing What to Do

### **Eliot Matthew Watkins**

(September, 2023) Thesis in the field of Philosophy submitted to the Department of Linguistics and Philosophy: Within 'Reason': A Study of Normative

Language

### Laura Weiwu

Thesis in the field of Economics: Essays on Inequality in Cities

#### Nicole Elizabeth Wilson

Thesis in the field of Political Science: Seeing Like an Estate: Middle-Class Political Behavior After Collective Exit

#### Tyler Brooke Wilson

(September, 2023)

Thesis in the field of Philosophy submitted to the Department of Linguistics and Philosophy: Bounded Rationality as a Strategy for Cognitive Science

### Chloe Elisha Wittenberg

(September, 2023)

Thesis in the field of Political Science: Is the Medium Still the Message? Assessing the Role of Video in Political Persuasion

### Jamie Jing-Men Wong

(September, 2023)

Thesis in the field of History,
Anthropology, and Science, Technology,
and Society submitted to the Program
in Science, Technology, and Society: The
Politics of Scale and Scaling in Chinese
Governance and Venture Capitalism

#### Christopher Minwoo Yang

(September, 2023)

Thesis in the field of Linguistics submitted to the Department of Linguistics and Philosophy: How Joint Inference of the Lexicon and Phonology Affects the Learnability of Process Interactions

#### Hao Zhang

Thesis in the field of Political Science: Three Essays on the Politics of Firms and Global Production Networks

#### Stanislao Zompi'

(September, 2023)
Thesis in the field of Linguistics submitted to the Department of Linguistics and Philosophy: ABA in Multidimensional Paradigms: A Max/Dep-Based Account

### SLOAN SCHOOL OF MANAGEMENT, DOCTORAL

### Doctor of Philosophy

Sloan School of Management

#### Jennifer Nancy Lee Allen

Thesis in the field of Management: Essays on Understanding and Combating Misinformation at Scale

### Kayhan Behdin

Thesis in the field of Operations Research: Statistical Learning with Discrete Structures: Statistical and Computational Perspectives

#### Mohammed Amine Bennouna

Thesis in the field of Operations Research: Efficient Robustness and Interpretability in Learning and Data-Driven Decision-Making

#### Maya Bidanda

Thesis in the field of Management: Essays on Entrepreneurship and Finance

#### Moïse Jean-Baptiste Marie Blanchard

Thesis in the field of Operations Research: Fundamental Limits in Learning for Generalizability, Data Resilience, and Resource Efficiency

### Matthew Patrick Cashman

(September, 2023) Thesis in the field of Management: Nothing to See, Nothing to Say, and Noting How Much: Three Essays on Information and Behavior

### **Kayla Spring Cummings**

(September, 2023) Thesis in the field of Operations Research: Design, Planning, and Flexible Operations for Collaborative Platformbased Systems

### Shuvomoy Das Gupta

Thesis in the field of Operations Research: Advances in Computer-Assisted Design and Analysis of First-Order Optimization Methods and Related Problems

### Timothy Harindra de Silva

Thesis in the field of Management: Essays in Household and Behavioral Finance

#### Joanne Im

Thesis in the field of Management: Essays in Financial Economics

#### Raquel Renee Kessinger

Thesis in the field of Management: Speaking Up, Speaking Out, and Making Movements: How Employee Activists Raise Social, Political, and Moral Concerns at Work

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Thesis in the field of Management: Essays on Marketing Innovations

### Jose Luis Lopez

Thesis in the field of Management: Essays in System Dynamics for Operations Management: Policy, Platforms and

#### Claire Christine McKenna

(February, 2024) Thesis in the field of Management: Essays on Unemployment

#### James Corbett Mellody

Thesis in the field of Management: Essays on Culture and Coordination

### Arrow Minster

Thesis in the field of Management: Closing the Voice Gap: Evidence from a Hospital System's Empowerment Program

#### Alex Vernon Moehring

Thesis in the field of Management: Essays on Online Platforms and Human-Algorithm Interactions

### Zanele Tanyaradzwa Munyikwa

Thesis in the field of Management: Essays on the Economics of Artificial Intelligence and Future of Knowledge Work

#### Yury Olshanskiy

Thesis in the field of Management: Essays in Financial Economics

#### Lindsey Raymond

Thesis in the field of Management: Essays on the Economics of Algorithms, Markets, and Organizations

#### **Justin Rand Scott**

Thesis in the field of Management: Essays in Financial Economics

#### Sohil Shah

Thesis in the field of Operations Research: Information Design for Platform-Enabled Operations

#### Leann Pearl Geetha Thayaparan

Thesis in the field of Operations Research: Analytics and Decision Making in Sustainable Operations

#### Kimberly M. Villalobos Carballo

Thesis in the field of Operations Research: Integrating Optimization and Machine Learning: Theory, Computation and Healthcare Applications

### Gabriel Medaglia Voelcker

Thesis in the field of Management: Attention To Retention: The Informativeness Of Insiders' Decision to Retain Shares

#### Haoyue Wang

Thesis in the field of Operations Research: Large-Scale Algorithms for Machine Learning: Efficiency, Estimation Errors, and Beyond

### Yifei Wang

Thesis in the field of Management: Three Essays on the Role of Individualized Data in Marketing

### **Emma Benz Wiles**

Thesis in the field of Management: Essays on Artificial Intelligence and Labor Markets

### Cynthia Zeng

Thesis in the field of Operations Research: Multimodal Machine Learning for Climate Change

### SCHOOL OF SCIENCE, DOCTORAL

### Doctor of Philosophy

School of Science

#### Yamilex Acevedo-Sánchez

Thesis in the field of Biology: An Obligate Intracellular Bacterial Pathogen Forms Extensive and Stable Interkingdom Contacts with the Endoplasmic Reticulum

### Ammar Mohammed Alali

(February, 2024) Thesis in the field of Geophysics submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Physics vs Data-Based Optimization Application in the Petroleum Industry Using Geophysical Inputs and Transformations

#### Stephanie Michelle Amtry

Thesis in the field of Chemistry submitted to the Department of Chemistry: Chemical Spin Patterning in Metal-Organic Frameworks

#### Gisele A. Andree

Thesis in the field of Chemistry submitted to the Department of Chemistry: Structural Investigation of Allosteric Regulation in Class III Ribonucleotide Reductases

### Jason Lee Andresen

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Development of Chemically-Defined Platform Materials for Localized Delivery of RNA Therapeutics

### Martin Arreola Villanueva

(February, 2024) Thesis in the field of Computational and Molecular Biology submitted to the Department of Biology: Profiling, Modeling and Engineering of Human Tissue Responses for Clinical Interventions

### Mariona Badenas Agusti

Thesis in the field of Planetary Sciences submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Small Stars, Big Data: Detection and Characterization of Polluted White Dwarfs in the Era of Machine Learning

### **Andrew Harrington Bahle**

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: Neural Dynamic Underlying and Auditory Memory for Song Learning

#### Jacob Scott Baker

Thesis in the field of Microbiology submitted to the Department of Biology: Lineage-Level Intraspecies Community Dynamics

#### Julius Baldauf

Thesis in the field of Mathematics: The Ricci Flow on Spin Manifolds

#### Juliet Charlotte Barker

Thesis in the field of Biology: How Much DNA is Too Much?

#### Jade Rose Bath

Thesis in the field of Microbiology submitted to the Department of Biology: Mucins Regulate Virulence and Colonization Factors in Streptococcus Pneumoniae

### Jessica Claire Beard

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Leveraging the Photochemistry of N-Nitrosamines for Their Aqueous Detection, and Development of a Novel Hemi-Iptycene for Porous Polymers

### Victoria Frances Beja-Glasser

(September, 2023)

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: Investigating the Physiological Function of Alzheimer's Disease Risk Gene Abca7 in the Central Nervous System

### David B. Berkinsky

Thesis in the field of Chemistry submitted to the Department of Chemistry: Optical Properties of Colloidal II-VI and III-V Semiconductor Nanocrystals: Single Nanocrystal Photon Correlation Spectroscopy

#### Alison Elizabeth Press Biester

Thesis in the field of Chemistry submitted to the Department of Chemistry: Structural Insights into Microbial One-Carbon Metabolic Enzymes: Ni-Fe-S-Dependent Carbon Monoxide Dehydrogenases and Acetyl-CoA Synthases

### Adam Bayldon Block

Thesis in the field of Mathematics and Statistics submitted to the Department of Mathematics: Smoothed Online Learning: Theory and Applications

#### Daniel Paul Bollen

(September, 2023) Thesis in the field of Biology: Reversible Germline Dynamics of Caenorhabditis

Elegans during Exposure to Pseudomonas Aeruginosa

#### Trever Michael Bostelaar

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Metallocluster Site-Differentiation and Subsite Selective Heterometal Substitution

### Michael Samir Calzadilla

Thesis in the field of Physics: Evolution of Supermassive Black Hole Feedback in Galaxy Clusters

### Hayden Monroe Carder

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Radical Tools to Transform Biomass Sugars

### Letícia Cardoso da Costa

Thesis in the field of Chemistry submitted to the Department of Chemistry: Design of Cleavable Monomers and Cross-Linkers for the Synthesis of Degradable Polymer Architectures

### Maria Alejandra Castellanos Morales

(February, 2024)

Thesis in the field of Chemistry submitted to the Department of Chemistry: Theoretical Design of Molecular Nanostructures for Exciton Control

#### Sarah Mary Chang

Thesis in the field of Biochemistry submitted to the Department of Biology: Control of Cellular Redox State and **Biomass Synthesis** 

#### An Thien Chu

(February, 2024) Thesis in the field of Chemistry submitted to the Department of Chemistry: Leveraging the Properties of Aprotic Solvents Towards Efficient Electrocatalytic Carbon Dioxide Reduction

#### Murilo Corato Zanarella

Thesis in the field of Mathematics: First Explicit Reciprocity Law for Unitary Friedberg-Jacquet Periods

### **Sebastian Thomas Coupe**

(September, 2023) Thesis in the field of Biophysics submitted to the Department of Biology: The Effects of DEAD-box Helicase Activity on Biomolecular Condensate Structure and Dynamics

#### Amanda Elizabeth Cowfer

(February, 2024) Thesis in the field of Chemistry submitted to the Department of Chemistry: Investigation of Synthetic Proteins Produced via Automated Fast-Flow Peptide Synthesis

### Andrés B. Crane

(February, 2024)

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: Characterization of the Role of Differential Gene Expression and RNA Editing in Drosophila Tonic and Phasic Motoneuron Diversity

### Gefei Dang

Thesis in the field of Mathematics: Local Newforms and Spherical Characters for **Unitary Groups** 

#### Michael Richard Das

Thesis in the field of Biology: CAG Repeat Expansions Induce Cytoplasmic RNA Aggregation

#### Blake Stephensen Dastrup

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Time-Resolved THz Magnetospectroscopy: Techniques and Applications

#### **Griffen James Desroches**

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Mechanical Reinforcement and Property Tuning of Adhesive Elastomers with Polymer-Grafted Inorganic Nanoparticles

#### Zhihuan Dong

Thesis in the field of Physics: Interplay Between Correlation and Topology in Two-Dimensional Condensed Matter Systems

#### **David Thomas Driscoll**

Thesis in the field of Biology: The Role of Orc6 in ORC Binding-Site Switching During Helicase Loading

#### Gabrielle Drummond

(February, 2024)

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: The Role of Locus Coeruleus Norepinephrine in Reinforcement Learning

### Lisa Valerie Drummond

Thesis in the field of Physics: Gyroscropes Orbiting Gargantuan Black Holes: Spinning Secondaries in Extreme Mass Ratio Inspirals

Thesis in the field of Physics: Super-Resolution Control of Ultracold Dipolar Atoms on a 50 nm Scale

### Diana Dumit

Thesis in the field of Geochemistry submitted to the Department of Earth, Atmospheric, and Planetary Sciences: A Biogeochemical Investigation of Trunk River Lagoon, Falmouth, Massachusetts

### Reuven Falkovich

Thesis in the field of Chemistry submitted to the Department of Chemistry: Synaptic Multimodal Imaging and Molecular Network Inference

#### Ardavan Farahvash

Thesis in the field of Chemistry submitted to the Department of Chemistry: Memory and Fluctuations in Chemical Dynamics

### Charlotte Farquhar

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: The Discovery and Chemical Synthesis of Peptides and Proteins that Cross Biological Barriers

#### Nikole Louise Fendler

Thesis in the field of Biochemistry submitted to the Department of Biology: Characterization of DNA Binding and Entrapment by the Retroelement Silencing Factor MORC2

#### Alexandra C. Ferguson

(February, 2024)

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: Maintenance and Metalearning of Time Interval Representations

#### **Bryan Thomas Fichera**

Thesis in the field of Physics: Ultrafast Spectroscopy and Control of Correlated Electron Systems

### Atakan Hilmi Fırat

Thesis in the field of Physics: Hyperbolic String Field Theory

### Åsmund Schiager Folkestad

Thesis in the field of Physics: From Quantum Information to Cosmic Censorship: Emergent Spacetimes and Their Surfaces

### **Colin Emory Fowler**

Thesis in the field of Biology: Targeting PRMT5 Impairs Cancer Proliferation through Splicing but Promotes State Shifts that Enable Resistance and Disease Progression

### Elisabeth Marguerite Freese

(September, 2023)

Thesis in the field of Atmospheric Chemistry submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Energy Policy Impacts on Air Quality and Climate at the National, Regional and Global Scale

#### **Danielle Frostig**

Thesis in the field of Physics: The Wide-Field Infrared Transient Explorer (WINTER): A New Near-Infrared Time-Domain Survey

#### **Dhruva Ganapathy**

Thesis in the field of Physics: Expanding the Reach of Quantum Enhanced Gravitational-Wave Detectors

#### Sarah R. Geller

(September, 2023)

Thesis in the field of Physics: Cosmic Echoes of the Early Universe: From Primordial Black Holes to Gravitational Waves

#### Patrik Robert Gerber

Thesis in the field of Mathematics and Statistics submitted to the Department of Mathematics: Likelihood-Free Hypothesis Testing and Applications of the Energy Distance

#### JoLynn Barbara Giancola

Thesis in the field of Chemistry submitted to the Department of Chemistry: Cytosolic Delivery of Functional Biomolecules

#### Ana Glidden

(February, 2024)

Thesis in the field of Planetary Sciences submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Isotopes as a Tool for Exploring **Exoplanet Atmospheres** 

### Annika Lucienne Gomez

Thesis in the field of Microbiology submitted to the Department of Biology: **Ecological Forces Affecting Microbial** Eukaryotes in the Coastal Ocean

#### Shashi Gowda

Thesis in the field of Mathematics: Symbolic-Numeric Programming in Scientific Computing

#### Xin Gu

Thesis in the field of Chemistry submitted to the Department of Chemistry: Leveraging Radical Intermediate in Stereochemical Editing and Dehydrogenative Tailoring

#### Chuchu Guo

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Siderophore-Based Drug Repurposing of Platinum Anticancer Agents as Targeted Antibiotics and Investigation of Pt-Induced DNA

Damage in Gram-Negative Bacteria

#### James Gregory Hall, Jr.

(September, 2023) Thesis in the field of Geobiology submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Probing the Role of Clay Minerals in the Preservation of Organics and Soft Tissues

#### Jackson Russell Hance

(September, 2023)

Thesis in the field of Mathematics: Regularity of the Level Set Equation for Mean Curvature Flow with an Axis of Symmetry

#### Alasdair D. Hastewell

Thesis in the field of Mathematics: Robust Spectral Representations and Model Inference for Biological Dynamics

#### Victoria J. Hernandez

Thesis in the field of Biochemistry submitted to the Department of Biology: An Investigation of TorsinA Interaction Partners

### Alice Lydia Herneisen

(September, 2023) Thesis in the field of Biology: Multidimensional Profiling of the Toxoplasma Gondii Proteome

#### Kathleen Whitmore Higgins

Thesis in the field of Biology: Rapid Expansion and Specialization of the TAS2R Bitter Taste Receptor Family in Amphibians

### Kimberly Kathleen Hollister

Thesis in the field of Chemistry submitted to the Department of Chemistry: Redox Flexible Borafluorenes and Borepins: Synthesis, Structural Analysis and Optoelectronic Properties

#### Eghbal Hosseini Asl

Thesis in the field of Computational Neuroscience submitted to the Department of Brain and Cognitive Sciences: Towards Synergistic Understanding of Language Processing in Biological & Artificial Systems

#### Susana Maria Hoyos Muñoz

Thesis in the field of Geochemistry submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Melting Processes in Planetary Interiors

#### Haojun Jia

Thesis in the field of Chemistry submitted to the Department of Chemistry: Revealing Structural and Spin-State Dependent Reactivity of Single Atom Catalysts (SACs) with Systematically Improvable Computational Tools

### **Robert Edward Johnston**

(September, 2023)

Thesis in the field of Physics, Statistics, and Data Science submitted to the Department of Physics: Measurement of the Deeply Virtual Neutral Pion Electroproduction Cross Section off the Proton at 10.6 GeV Using the CLAS12 Detector

#### Min Gu Kang

(September, 2023) Thesis in the field of Physics: Kagome Lattice Quantum Materials

#### Arun Shrinath Kannan

Thesis in the field of Mathematics: On Lie Theory in the Verlinde Category

### Samuel Joshua Kaser

Thesis in the field of Chemistry submitted to the Department of Chemistry: Small Molecule Motion Within and Through Organic Nanomaterials: An Anthology

### Carina Kauf

Thesis in the field of Computational Cognitive Neuroscience: The Relationship between Linguistic Representations in Biological and Artificial Neural Networks

#### Veda Dharma Khadka

Thesis in the field of Microbiology submitted to the Department of Biology: Staphylococci of the Skin: Consequences for Host Health

#### Landon James Kilgallon

Thesis in the field of Chemistry submitted to the Department of Chemistry: New Purification Strategies and Monomer Platforms for Ruthenium-Initiated Living Ring-Opening Metathesis Polymerization

#### **Hunter Oren King**

(February, 2024) Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: Branching Out: How a Planarian Neoblast Generates Cellular Diversity

#### Laurel Fay Kinman

Thesis in the field of Biophysical Chemistry and Molecular Structure submitted to the Department of Biology: Approaches to Quantitatively Analyze Protein Complex Assembly and Regulation

#### Daniil Klinev

Thesis in the field of Mathematics: Positive Traces and Analytic Langlands Correspondence

#### Catherine E. Koch

Thesis in the field of Genetics submitted to the Department of Biology: Utilizing In Vivo Genome-Wide CRISPR-Cas9 Screens in Immunocompetent Mouse Models to Identify Novel Tumor Liabilities and Explore Mechanisms of Resistance to Chimeric Antigen Receptor T-cell Therapy

#### Vasily Krylov

Thesis in the field of Mathematics: Geometry and Representation Theory of Symplectic Singularities in the Context of Symplectic Duality

#### Swanny Aisha Lamboy Rodríguez

Thesis in the field of Biology: YAP and TAZ have Functionally Redundant Roles in Uveal Melanoma

#### Benjamin Bret Lane

Thesis in the field of Physics: Conditional Mechanical Squeezing of a Micromechanical Oscillator Approaching the Quantum Regime

#### Jae Hee Lee

Thesis in the field of Mathematics: Quantum Steenrod Operations of Symplectic Resolutions

#### Michael Alan Lee

Thesis in the field of Chemistry submitted to the Department of Chemistry: Experimental and Computational Advancements in Peptidomimetic Ligand Discovery

#### **Iet Lem**

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Materials at Extremes: Shock-Induced Fracture and Phase Transitions

#### Mandara Alexis Levine

(February, 2024) Thesis in the field of Microbiology submitted to the Department of Biology: Temporal Gene Expression and Regulation in T4 Phage

#### **Ishan Levy**

Thesis in the field of Mathematics: The K-Theory of the Chromatic Filtration and the Telescope Conjecture

#### Noah Benjamin Lewis

Thesis in the field of Chemistry submitted to the Department of Chemistry: Mechanistic Studies of Interfacial Proton-Coupled Electron Transfer to Molecularly Defined Surface Sites

### Bryan Lee Linehan

Thesis in the field of Physics: Transport Properties of Divertor Edge Plasmas Measured with Multi-Spectral Imaging

### Bingxu Liu

(September, 2023)

Thesis in the field of Biology: Inheritance, Innovation, and Adaptation of Immune Systems: Regulation of the Innate Immunity Sensor Stimulator of Interferon Genes (STING)

### Shuming Liu

Thesis in the field of Chemistry submitted to the Department of Chemistry: Understanding Chromatin Organization and Dynamics with Coarse-Grained Modeling

#### **Tongtong Liu**

(September, 2023)

Thesis in the field of Physics, Statistics, and Data Science submitted to the Department of Physics: Probing Entanglement and Symmetry Breaking Orders via Spectroscopies and Machine Learning

#### Chen Lu

(September, 2023)

Thesis in the field of Mathematics and Statistics submitted to the Department of Mathematics: Upper and Lower Bounds for Sampling

#### Gurrein Kaur Madan

(February, 2024)

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: Neural Basis of Persistent Behavioral States in the Nematode C. Elegans

#### Elias Nathaniel Mansbach

Thesis in the field of Geophysics submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Employing Magnetic Field Records at Key Moments in Planetary Evolution

#### Michael Mardini

(February, 2024) Thesis in the field of Chemistry submitted to the Department of Chemistry: High Field Dynamic Nuclear Polarization Methods: Microwave Sources and Mechanisms

### Luis Eduardo Martínez-Rodríguez

(February, 2024)

Thesis in the field of Biochemistry submitted to the Department of Biology: Understanding the Role of ORC ATP Hydrolysis

### Conor Lee McMann

Thesis in the field of Biology: Positional Information in Adult Bilaterian Tissues

#### **Zachary Molitor**

Thesis in the field of Geology submitted to the Department of Earth, Atmospheric, and Planetary Sciences: The Structure and Behavior of Plate Boundary Regions Through the Wilson Cycle

#### Patrick H. Moran

(February, 2024) Thesis in the field of Physics: Exclusive Phi Meson Electroproduction off the Proton at CLAS12

#### Calder Oakes Morton-Ferguson

Thesis in the field of Mathematics: Kazhdan-Laumon Categories and Representations

#### Seth William Musser

Thesis in the field of Physics: Strongly Correlated Electronic Matter: Phases and their Transport

#### Gil Namkoong

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Chemical Modification of Iron-Sulfur Cofactors

#### Wei Chieh Ng

Thesis in the field of Physics: Multifaceted Understanding of Accreting Neutron Stars and their Environments

### Matthew Stephen Nicoletti

Thesis in the field of Mathematics: Dynamics on Integrable Lattice Models

#### Stephanie L. O'Neil

Thesis in the field of Physics: Environmental Impacts on Simulated **Galaxy Properties** 

### Julius Jacob Oppenheim

Thesis in the field of Chemistry submitted to the Department of Chemistry: Tailoring Metal-Organic Frameworks for Water Harvesting

### Alexander Edward Ortiz

Thesis in the field of Mathematics: Sparse Fourier Restriction for the Cone

### Jai Phiroze Padmakumar

(September, 2023) Thesis in the field of Microbiology submitted to the Department of Biology: Genomically Encoded Logic Gates and Cell-Cell Communication Devices for the Implementation of a Cryptographic Hashing Algorithm in Living Cells

#### **Chanyoung Park**

Thesis in the field of Biology: Regulation of Fate Specification in Stem Cells of the Planarian Schmidtea Mediterranea

#### Jeong Min Park

Thesis in the field of Physics: Emergent Quantum Phenomena in Magic-Angle Twisted Graphene Superlattices

#### **Christopher Wesley Parsons**

Thesis in the field of Geobiology submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Bridging the Gap Between Microbial and Metazoan Evolutionary History

#### Janet Jie Ying Peet

Thesis in the field of Chemistry submitted to the Department of Chemistry: Microbial Responses to Iron and Zinc Deprivation

#### Dimitra A. Pefkou

(September, 2023) Thesis in the field of Physics: Gravitational Form Factors of Hadrons from Lattice OCD

#### **Daniel Evan Piephoff**

(February, 2024) Thesis in the field of Chemistry submitted to the Department of Chemistry: Statistical Kinetics and Nonequilibrium Thermodynamics of Driven Systems: Stochastic Methods and Applications to Single-Molecule Biophysics

### Barrett MacDonald Powell

Thesis in the field of Biology: Deep Learning Methods to Study Structurally Heterogeneous Macromolecules In Vitro and In Situ

### Wenzer Qin

Thesis in the field of Physics: Illuminating the Cosmos: Dark Matter, Primordial Black Holes, and Cosmic Dawn

#### Mahdi Fouad Ramadan

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: The Cognitive and Neural Basis of Complex Decision-Making in the Primate Brain

#### Ali Ramadhan

(February, 2024) Thesis in the field of Computational Earth, Atmospheric, and Planetary Sciences submitted to the Department

of Earth, Atmospheric, and Planetary Sciences: Data-Driven Ocean Modeling Using Neural Differential Equations

#### Joshua Ramette

Thesis in the field of Physics: Counterfactual Carving Exponentially Improves Entangled State Fidelity, and Other Methods

#### Jingyi Ren

Thesis in the field of Chemistry submitted to the Department of Chemistry: Tracing RNA Biography: In Situ Transcriptome Profiling by Novel Spatial Omics Technologies

### Shruthi Rengarajan

Thesis in the field of Computational and Systems Biology submitted to the Department of Biology: Regulation of Human Sex-Linked Homologs DDX3X and DDX3Y and Phenotypic Consequences

### Jacob Joshua Lee Rodriguez

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Modification of Biopolymers Using Palladium Oxidative Addition Complexes

#### Nicolas Romeo

(September, 2023) Thesis in the field of Physics: Geometry and Transport in Development

#### Zane Marius Rossi

Thesis in the field of Physics: Functional Quantum Algorithms: A Mélange of Methods for Matrix Functions

### Mark Ryan Saddler

(February, 2024) Thesis in the field of Computational Neuroscience submitted to the Department of Brain and Cognitive Sciences: Task-Optimized Models of Human Hearing Link Perception and Neural Coding

#### Ashwin Sah

Thesis in the field of Mathematics: Random and Exact Structures in Combinatorics

#### Atharva B. Sahasrabudhe

Thesis in the field of Chemistry submitted to the Department of Chemistry: Multifunctional Wireless Gut-Brain Neurotechnology

#### Allen Garrett Sanderlin

Thesis in the field of Biology: Identification and Characterization of Rickettsial Proteins at the Host-Pathogen Interface

#### Mehtaab Sawhney

Thesis in the field of Mathematics: Probabilistic and Analytic Methods in Combinatorics

#### Arish N. Shah

Thesis in the field of Biology: Ribosome Heterogeneity in Zebrafish Germ and Soma Provides Insight into Gene Expression During Development and Disease

#### Sugandha Sharma

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: Modeling Spatial Mapping, Memory and their Underlying Mechanisms in the Hippocampal Complex

### **Tsai-Ting Shih**

(February, 2024) Thesis in the field of Biology: ClpAP and HslUV

#### Sara Kornfeld Simpson

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: Physiology and Plasticity of Primary Visual Cortex in Wild-Type and Fragile X Syndrome Model Mice

### Avinoam Aryeh Singer

Thesis in the field of Biochemistry submitted to the Department of Biology: Elaboration of the Homer1 Recognition Landscape Reveals Incomplete Divergence of Paralogous EVH1 Domains

#### Kristin Andrykovich Singh

Thesis in the field of Biology: Human-Mouse Neural Crest Chimeras as a Novel Model for Human Melanocyte Biology in Development and Disease

#### Brighton Alexander Skeel

Thesis in the field of Chemistry submitted to the Department of Chemistry: Experimental Characterization of Iron-Sulfur Cluster Excited States and their Relevance to Electron Transfer Reactions

### Emilie Josephine Skoog

(September, 2023) Thesis in the field of Geobiology submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Elucidating Microbial Interactions, Adaptations, and Evolution Under Extreme Environmental Conditions in Modern Microbial Mats from Shark Bay, Western Australia

#### Michael Alexander Skuhersky

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: An Integrated Approach for Caenorhabditis Elegans Nervous System Simulation

### Joseph Smolsky

(September, 2023) Thesis in the field of Physics: Ion Source Development for IsoDAR and Multi-Messenger Astrophysics with KamLAND

#### George Stepaniants

Thesis in the field of Mathematics and Statistics submitted to the Department of Mathematics: Inference from Limited Observations in Statistical, Dynamical, and Functional Problems

#### Kayla Roberta Storme

(February, 2024) Thesis in the field of Chemistry submitted to the Department of Chemistry: Designing Microporous Polymers for Separations

#### Felipe Suarez Colmenares

(September, 2023) Thesis in the field of Mathematics: Perspectives on Geometry and Optimization: From Measures to Neural Networks

#### Vitian Sun

Thesis in the field of Physics: Understanding Dark Matter through Indirect Detection, Simulation, and Machine Learning

#### Eric Rueyhao Sung

(February, 2024) Thesis in the field of Chemistry submitted to the Department of Chemistry: Developments in THz Polaritonics: Towards Integrated Nonlinear THz Spectroscopy

#### **Deepsing Syangtan**

Thesis in the field of Chemistry submitted to the Department of Chemistry: Carbohydrate-Protein Interactions in Stem Cells and Gut Microbiome

#### Rachel Emoke Szabo

(September, 2023) Thesis in the field of Microbiology submitted to the Department of Biology: The Ecology of Prophages at the Microscale

#### Sarah Elizabeth Tammen

(September, 2023) Thesis in the field of Mathematics: Incidence Problems for Slabs

### **Andrew Tan**

(February, 2024) Thesis in the field of Physics: Towards a Resource Theory of Fault-Tolerant Computation

### Bryan Yuk-Wah Tang

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Reaction Condition Dependence of Different Overpotential Components in Electrochemical Hydrogen Catalysis

### John Michael Tauber

(February, 2024) Thesis in the field of Neuroscience and Statistics submitted to the Department of Brain and Cognitive Sciences: Statistical Modeling of Disrupted Sensory Processing during Propofol Mediated Unconsciousness

#### Katherine Irene Taylor

(February, 2024) Thesis in the field of Chemistry submitted to the Department of Chemistry: Methods for the Study of Galactofuranose

#### Wei Lun Toh

(September, 2023) Thesis in the field of Chemistry submitted to the Department of Chemistry: Mechanistic Underpinnings of Efficient Chemical-to-Electrical Energy Interconversion in Bipolar Membranes

#### Adam Morris Willner Trebach

(February, 2024)

Thesis in the field of Physics: Unraveling the Reconfiguration Dynamics of Silver Nanowire Networks under **Electrothermal Stress** 

### **Katherine Rachel Tsimring**

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: Cellular and Synaptic Basis of Mouse Binocular Cortical Circuit Development

#### Nolan Thomas Tucker

(February, 2024)

Thesis in the field of Genetics submitted to the Department of Biology: The Pro-Apoptotic Function of CED-9 Requires a CED-9-CED-4 Interaction

### Roger Wolcott Van Peski

(September, 2023) Thesis in the field of Mathematics: Asymptotics, Exact Results, and Analogies in p-adic Random Matrix Theory

#### Jade Eliya Varineau

Thesis in the field of Biology: A Common Cellular Response to Broad Splicing Perturbations

### Brian Gregory Vassallo

(September, 2023) Thesis in the field of Biology: Host-Bacteria-Virus Interactions in Caenorhabditis Elegans

#### Martín Vélez Pardo

(February, 2024)

Thesis in the field of Atmospheric Science submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Convective Dynamics of the Tropical Atmosphere in Three Idealized Approaches

### Vyshnavi Vennelakanti

(February, 2024)

Thesis in the field of Chemistry submitted to the Department of Chemistry: Interplay of Transition Metals and Noncovalent Interactions in C-H Activation Catalysis

### Katherine Leigh Walker

(February, 2024)

Thesis in the field of Chemistry submitted to the Department of Chemistry: Studies on Stereospecific Diketopiperazine Oxidation and Applications to the Synthesis of Complex Epidithiodiketopiperazines

#### Danielle Y. Wang

Thesis in the field of Mathematics: Twisted Gan-Gross-Prasad Conjecture for Unramified Quadratic Extensions

#### Jingyi Wang

Thesis in the field of Physics, Statistics, and Data Science submitted to the Department of Physics: Spectral-Timing Observations of Disk-Jet Coupling in Black Hole X-ray Binaries

#### Annie Yuan Wei

Thesis in the field of Physics: Entanglement and Chaos in Ouantum Field Theory and Gravity

#### **Catherine Cawley Wolfram**

Thesis in the field of Mathematics: Random Geometry in Two and Three Dimensions

### **Evans Christian Wralstad**

(February, 2024) Thesis in the field of Chemistry submitted to the Department of Chemistry: Exploring and Exploiting Ribonuclease 1: from Protein Biochemistry to Protein Engineering

#### Yifan Wu

(February, 2024)

Thesis in the field of Chemistry submitted to the Department of Chemistry: Design, Synthesis and Applications of Versatile Porous Poly(arylene ether)s

#### Acer Eliot Xu

Thesis in the field of Biology: Screens for Non-Eukaryotic Initiation Factor Two Alpha Dependent Activation of ATF4 Translation

#### Kathryn Marie Yammine

Thesis in the field of Chemistry submitted to the Department of Chemistry: Procollagen Folding in Health and Disease

#### Jinyi Yang

Thesis in the field of Chemistry submitted to the Department of Chemistry: Leveraging Noncovalent Interactions to Design Peptides and Their Assemblies

#### Anna Yeh

(September, 2023)

Thesis in the field of Biology: Bitesize Bundles F-Actin and Influences Actin Remodeling in Syncytial Drosophila Embryo Development

### Pu Yu

Thesis in the field of Mathematics: Conformal Welding of Random Surfaces from Liouville Theory

#### Dae Hee Yun

Thesis in the field of Neuroscience submitted to the Department of Brain and Cognitive Sciences: Illuminating the Brain: Advances in High-Resolution, Multi-Scale Proteomic Labeling and **Imaging** 

### Hadiqa Zafar

Thesis in the field of Chemistry submitted to the Department of Chemistry: Design and Synthesis of Stimuli-Responsive Polymers with Programmable Cleavability

### **Annie Zhang**

(September, 2023) Thesis in the field of Biochemistry submitted to the Department of Biology: Changing Protein-DNA Interactions Promote ORC Binding Site Exchange during Replication Origin Licensing

Irene H. Zhang (September, 2023) Thesis in the field of Microbiology submitted to the Department of Biology: Ecology and Adaptation of Denitrifiers across Genomes and Environments

### YiYu Zhang

(September, 2023) Thesis in the field of Mathematics: Koszul Duality and the Bar Spectral Sequence

### En Ze Linda Zhong-Johnson

Thesis in the field of Biochemistry submitted to the Department of Biology: Biochemical Analysis of Poly(ethylene terephthalate) Film Degradation Kinetics of Engineered IsPETase Variants

## AWARDED JOINTLY WITH THE WOODS HOLE OCEANOGRAPHIC INSTITUTION, DOCTORAL

### **Doctor of Philosophy**

### Cory Ailin Berger

(February, 2024) Thesis in the field of Biological Oceanography submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Exploring Circadian Rhythms, Food Intake, and Their Interactions in Marine Invertebrates

#### Luka Anthony Catipovic

(February, 2024) Thesis in the field of Chemical Oceanography submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Interactions between Rivers and Coastal Margins in the Alaskan Arctic

#### Samantha Jade Clevenger

(February, 2024) Thesis in the field of Chemical Oceanography submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Investigating the Ocean's Biological Pump Using Thorium-234 and Polonium-210

### Blake Ian Barry Cole

Thesis in the field of Mechanical Engineering: Wingsail Design Methodology and Performance **Evaluation Metrics for Autonomous** Sailing

#### Alia Shifa Hidayat

Thesis in the field of Biological Oceanography submitted to the Department of Biology: Assessing the Impact of Domoic Acid Exposure on the Zebrafish (Danio Rerio) Brain Across Multiple Life Stages

#### Henry Cameron Holm

(February, 2024) Thesis in the field of Chemical Oceanography submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Microbial Glycerolipids in the Global Ocean: Environmental Controls and Sinking Flux **Dynamics** 

### Stewart Christopher Jamieson

Thesis in the field of Autonomous Systems submitted to the Department of Aeronautics and Astronautics: Enabling Human-Multi-Robot Collaborative Visual Exploration in Underwater Environments

#### Rachel E. Kahn

(February, 2024)

Thesis in the field of Mechanical and Oceanographic Engineering submitted to the Department of Mechanical Engineering: Broadband Acoustical Scattering in Coastal Environments: Application to Gelatinous Organisms and Gas Microbubbles

#### Jennifer Shizu Karolewski

Thesis in the field of Chemical Oceanography submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Coupled Cycling of Metals with Nitrogen and Carbon in Aquatic Systems

### Hanyuan Liu

(September, 2023) Thesis in the field of Physical Oceanography submitted to the Department of Earth, Atmospheric, and Planetary Sciences: The Behavior of the Atmospheric Boundary Layer in the Vicinity of the Gulf Stream Sea Surface Temperature Front

### Donald Edward Martocello III

Thesis in the field of Chemical Oceanography submitted to the Department of Earth, Atmospheric, and Planetary Sciences: The Impact of Metals and Other Stress Factors on Microbial Ammonia Oxidation Physiology and Isotope Effects

#### Joanna Dudley Millstein

(February, 2024) Thesis in the field of Geophysics submitted to the Department of Earth, Atmospheric, and Planetary Sciences: The Flow and Fracture of Antarctic Ice Shelves

#### Brendan William O'Neill

(September, 2023)

Thesis in the field of Mechanical and Oceanographic Engineering submitted to the Department of Mechanical Engineering: Adaptive AUV-assisted Diver Navigation for Loosely-Coupled Teaming in Undersea Operations

#### Jordan Avery Pitt

(February, 2024) Thesis in the field of Biological Oceanography submitted to the Department of Biology: Assessing the Accumulation of Microplastics and Their Associated Impacts on Marine Life

### John Edward San Soucie

Thesis in the field of Mechanical and Oceanographic Engineering submitted to the Department of Mechanical Engineering: Inference and Robotic Path Planning over High Dimensional Categorical Observations

#### Paris Smalls

(September, 2023)

Thesis in the field of Marine Geophysics submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Pore Pressure Observations and Joule Heating, Magmatic Intrusions at Continental Rifts, and Microseisms in Yellowstone Lake

### **Bethany Lynn Fowler Stevens**

(September, 2023)

Thesis in the field of Biological Oceanography submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Picophytoplankton of the Northeast U.S. Shelf: Community Composition and Dynamics

#### Ruijiao Sun

(September, 2023) Thesis in the field of Biological Oceanography submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Causes and Consequences of Pair-Bond Disruption in Monogamous Species

## **Logan Ashley Tegler**

(February, 2024) Thesis in the field of Geochemistry submitted to the Department of Earth, Atmospheric, and Planetary Sciences: From the Atmosphere to the Abyss: Tracing Organic Carbon Deposition, Cadmium Isotopes, and Iron Cycling Using Marine Sediments

# **Zachary John Corey Tobias**

Thesis in the field of Marine Biology submitted to the Department of Earth, Atmospheric, and Planetary Sciences: Genomic and Physiological Adaptation to Temperature in the Invasive Golden Star Tunicate (Botryllus Schlosseri)

#### Jessica Eve Todd

Thesis in the field of Aeronautics and Astronautics: Adaptive Robotic Search and Sampling of Sparse Natural Phenomena

## Anna Nicole Walsh

(September, 2023) Thesis in the field of Environmental Chemistry and Chemical Oceanography submitted to the Department of Civil and Environmental Engineering: Connecting Consumer Plastic Formulations to Marine Fates and Impacts

#### Yilang Xu

Thesis in the field of Civil and Environmental and Oceanographic Engineering submitted to the Department of Civil and Environmental Engineering: Processes of Stratification Breakdown and Restratification in Antarctic Coastal Polynyas

# **MILITARY COMMISSIONS**

## **United States Air Force**

2nd Lieutenant Micah Borrero Edenna Chen Jesse Cummings Timothy Grazier Liberty Ladd Ashley Luo Remeyn Mechura Lucy Nester Sarah Sams Morgan Schaefer Grant Thomas Christopher Wong Spencer Yoder Charlotte Wickert

# **United States Army**

2nd Lieutenant Joseph Cahaly Joaquin Cruz Mark Mosser Nicholas Schultz

# **United States Navy**

ENS Thomas Brooks Edward Finman Aidan Hallinan Vishakk Rajendran

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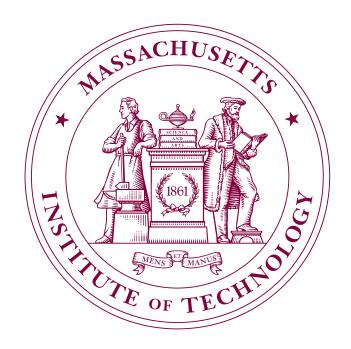
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