Jacob Calvert

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Academic Positions

Georgia Institute of Technology — Since 09/2023
Postdoctoral Fellow, Institute for Data Engineering and Science — Supervisor: Dana Randall
Postdoctoral Fellow, Algorithms and Randomness Center

Santa Fe Institute — Since 04/2025
Visiting Postdoctoral Fellow

Simons Laufer Mathematical Sciences Institute — 01/2025–05/2025
Berlekamp Postdoctoral Fellow

Education

University of California, Berkeley — 2017–2022
Ph.D., Statistics — Advisor: Alan Hammond

University of Oxford — 2016–2017
M.Sc., Mathematical and Theoretical Physics — Advisor: Ben Hambly

University of Bristol — 2015–2016
M.Sc., Mathematical Sciences — Advisor: Márton Balázs

University of Illinois at Urbana-Champaign — 2011–2015
B.S., Bioengineering — Advisor: Sua Myong

Honors and Awards

Santa Fe Institute Complexity Fellowship — 2025
Star Research Achievement Award, Society of Critical Care Medicine — 2020, 2021
Outstanding Graduate Student Instructor Award, UC Berkeley — 2020
Esteemed Paper Award, *Computers in Biology and Medicine* — 2016
Marshall Scholarship — 2015
NSF Graduate Research Fellowship — 2015
Barry Goldwater Scholarship — 2014
Edmund J. James Scholar, University of Illinois at Urbana-Champaign — 2011–2015

Papers

Published

[53] A local–global principle for nonequilibrium steady states.
      Jacob Calvert and Dana Randall.
      Proceedings of the National Academy of Sciences, 121(42):e2411731121, 2024.

[52] Single bridge formation in self-organizing particle systems.
Shunhao Oh, Joseph L. Briones, Jacob Calvert, Noah Egan, Dana Randall, and Andréa W. Richa.
38th International Symposium on Distributed Computing (DISC 2024).

[51] Existence of a phase transition in harmonic activation and transport.
Jacob Calvert.
Electronic Journal of Probability, 28:1–51, 2023.

[50] Collapse and diffusion in harmonic activation and transport.
Jacob Calvert, Shirshendu Ganguly, and Alan Hammond.
Forum of Mathematics, Sigma, 11:e85, 2023.

[49] Optimal discharge of patients from intensive care via a data-driven policy learning framework.
Fernando Lejarza, Jacob Calvert, Misty Attwood, Daniel Evans, and Qingqing Mao.
Operations Research for Health Care, 38:100400, 2023.

[48] Brownian structure in the KPZ fixed point.
Jacob Calvert, Alan Hammond, and Milind Hegde.
Astérisque, 441, 2023.

[47] Machine learning early prediction of respiratory syncytial virus (RSV) in pediatric hospitalized patients.
Chak Foon Tso, Carson Lam, Jacob Calvert, and Qingqing Mao.
Frontiers in Pediatrics, 10, 2022.

[46] Massive external validation of a machine learning algorithm to predict pulmonary embolism in hospitalized patients.
Jieru Shen, Satish Casie Chetty, Sepideh Shokouhi, Jenish Maharjan, Yevheniy Chuba, Jacob Calvert, and Qingqing Mao.
Thrombosis Research, 216:14–21, 2022.

[45] Predicting falls in long-term care facilities: Machine learning study.
Rahul Thapa, Anurag Garikipati, Sepideh Shokouhi, Myrna Hurtado, Gina Barnes, Jana Hoffman, Jacob Calvert, Lynne Katzmann, Qingqing Mao, and Ritankar Das.
JMIR Aging, 5(2):e35373, 2022.

[44] Mortality, disease progression, and disease burden of acute kidney injury in alcohol use disorder subpopulation.
Jenish Maharjan, Sidney Le, Abigail Green-Saxena, Manan Khattar, Jacob Calvert, Emily Pellegrini, Jana Hoffman, and Ritankar Das.
The American Journal of the Medical Sciences, 364(1):46–52, 2022.

[43] Early prediction of central line associated bloodstream infection using machine learning.
Keyvan Rahmani, Anurag Garikipati, Gina Barnes, Jana Hoffman, Jacob Calvert, Qingqing Mao, and Ritankar Das.
American Journal of Infection Control, 50(4):440–445, 2022.

[42] Machine learning to predict progression of non-alcoholic fatty liver to non-alcoholic steatohepatitis or fibrosis.
Sina Ghandian, Rahul Thapa, Anurag Garikipati, Gina Barnes, Abigail Green-Saxena, Jacob Calvert, Qingqing Mao, and Ritankar Das.
JGH Open, 6(3):196–204, 2022.

[41] A comparative analysis of machine learning approaches to predict C. difficile infection in hospitalized patients.
Saarang Panchavati, Nicole Zelin, Anurag Garikipati, Emily Pellegrini, Zohora Iqbal, Gina Barnes, Jana Hoffman, Jacob Calvert, Qingqing Mao, and Ritankar Das.
American Journal of Infection Control, 50(3):250–257, 2022.

[40] Enriching the study population for ischemic stroke therapeutic trials using a machine learning algorithm.
Jenish Maharjan, Yasha Ektefaie, Logan Ryan, Samson Mataraso, Gina Barnes, Sepideh Shokouhi, Abigail Green-Saxena, Jacob Calvert, Qingqing Mao, and Ritankar Das.
Frontiers in Neurology, 12, 2022.

[39] Predicting pulmonary embolism among hospitalized patients with machine learning algorithms.
Logan Ryan, Jenish Maharjan, Samson Mataraso, Gina Barnes, Jana Hoffman, Qingqing Mao, Jacob Calvert, and Ritankar Das.
Pulmonary Circulation, 12(1):e12013, 2022.

[38] Retrospective validation of a machine learning clinical decision support tool for myocardial infarction risk stratification.
Saarang Panchavati, Carson Lam, Nicole Zelin, Emily Pellegrini, Gina Barnes, Jana Hoffman, Anurag Garikipati, Jacob Calvert, Qingqing Mao, and Ritankar Das.
Healthcare Technology Letters, 8(6):139–147, 2021.

[37] Jenish Maharjan, Jacob Calvert, Emily Pellegrini, Abigail Green-Saxena, Jana Hoffman, Andrea McCoy, Qingqing Mao, and Ritankar Das.
Application of deep learning to identify COVID-19 infection in posteroanterior chest X-rays.
Clinical Imaging, 80:268–273, 2021.

[36] Prediction of short-term mortality in acute heart failure patients using minimal electronic health record data.
Ashwath Radhachandran, Anurag Garikipati, Nicole Zelin, Emily Pellegrini, Sina Ghandian, Jacob Calvert, Jana Hoffman, Qingqing Mao, and Ritankar Das.
BioData Mining, 14(1):23, 2021.

[35] Semisupervised deep learning techniques for predicting acute respiratory distress syndrome from time-series clinical data: Model development and validation study.
Carson Lam, Chak Foon Tso, Abigail Green-Saxena, Emily Pellegrini, Zohora Iqbal, Daniel Evans, Jana Hoffman, Jacob Calvert, Qingqing Mao, and Ritankar Das.
JMIR Formative Research, 5(9):e28028, September 2021.

[34] Personalized stratification of hospitalization risk amidst COVID-19: A machine learning approach.
Carson Lam, Jacob Calvert, Anna Siefkas, Gina Barnes, Emily Pellegrini, Abigail Green-Saxena, Jana Hoffman, Qingqing Mao, and Ritankar Das.
Health Policy and Technology, 10(3):100554, 2021.

[33] A digital twins machine learning model for forecasting disease progression in stroke patients.
Angier Allen, Anna Siefkas, Emily Pellegrini, Hoyt Burdick, Gina Barnes, Jacob Calvert, Qingqing Mao, and Ritankar Das.
Applied Sciences, 11(12), 2021.

[32] Predicting ventilator-associated pneumonia with machine learning.
Christine Giang, Jacob Calvert, Keyvan Rahmani, Gina Barnes, Anna Siefkas, Abigail Green-Saxena, Jana Hoffman, Qingqing Mao, and Ritankar Das.
Medicine, 100(23), 2021.

[31] Machine learning as a precision-medicine approach to prescribing COVID-19 pharmacotherapy with remdesivir or corticosteroids.
Carson Lam, Anna Siefkas, Nicole Zelin, Gina Barnes, R. Phillip Dellinger, Jean-Louis Vincent, Gregory Braden, Hoyt Burdick, Jana Hoffman, Jacob Calvert, Qingqing Mao, and Ritankar Das.
Clinical Therapeutics, 43(5):871–885, 2021.

[30] Convolutional neural network model for intensive care unit acute kidney injury prediction.
Sidney Le, Angier Allen, Jacob Calvert, Paul Palevsky, Gregory Braden, Sharad Patel, Emily Pellegrini, Abigail Green-Saxena, Jana Hoffman, and Ritankar Das.
Kidney International Reports, 6(5):1289–1298, 2021.

[29] A machine learning approach to predict deep venous thrombosis among hospitalized patients.
Logan Ryan, Samson Mataraso, Anna Siefkas, Emily Pellegrini, Gina Barnes, Abigail Green-Saxena, Jana Hoffman, Jacob Calvert, and Ritankar Das.
Clinical and Applied Thrombosis/Hemostasis, 27, 2021.

[28] Supervised machine learning for the early prediction of acute respiratory distress syndrome (ARDS).
Sidney Le, Emily Pellegrini, Abigail Green-Saxena, Charlotte Summers, Jana Hoffman, Jacob Calvert, and Ritankar Das.
Journal of Critical Care, 60:96–102, 2020.

[27] Is machine learning a better way to identify COVID-19 patients who might benefit from hydroxychloroquine treatment?—the IDENTIFY trial.
Hoyt Burdick, Carson Lam, Samson Mataraso, Anna Siefkas, Gregory Braden, R. Phillip Dellinger, Andrea McCoy, Jean-Louis Vincent, Abigail Green-Saxena, Gina Barnes, Jana Hoffman, Jacob Calvert, Emily Pellegrini, and Ritankar Das.
Journal of Clinical Medicine, 9(12), 2020.

[26] A racially unbiased, machine learning approach to prediction of mortality: Algorithm development study.
Angier Allen, Samson Mataraso, Anna Siefkas, Hoyt Burdick, Gregory Braden, R. Phillip Dellinger, Andrea McCoy, Emily Pellegrini, Jana Hoffman, Abigail Green-Saxena, Gina Barnes, Jacob Calvert, and Ritankar Das.
JMIR Public Health Surveillance, 6(4):e22400, 2020.

[25] Prediction of respiratory decompensation in COVID-19 patients using machine learning: The READY trial.
Hoyt Burdick, Carson Lam, Samson Mataraso, Anna Siefkas, Gregory Braden, R. Phillip Dellinger, Andrea McCoy, Jean-Louis Vincent, Abigail Green-Saxena, Gina Barnes, Jana Hoffman, Jacob Calvert, Emily Pellegrini, and Ritankar Das.
Computers in Biology and Medicine, 124, 2020.

[24] Multicenter validation of a machine-learning algorithm for 48-h all-cause mortality prediction.
Hamid Mohamadlou, Saarang Panchavati, Jacob Calvert, Anna Lynn-Palevsky, Sidney Le, Angier Allen, Emily Pellegrini, Abigail Green-Saxena, Christopher Barton, Grant Fletcher, Lisa Shieh, Philip

Stark, Uli Chettipally, David Shimabukuro, Mitchell Feldman, and Ritankar Das.
Health Informatics Journal, 26(3):1912–1925, 2020.

[23] Pediatric severe sepsis prediction using machine learning.
Sidney Le, Jana Hoffman, Christopher Barton, Julie Fitzgerald, Angier Allen, Emily Pellegrini, Jacob Calvert, and Ritankar Das.
Frontiers in Pediatrics, 7, 2019.

[22] Evaluation of a machine learning algorithm for up to 48-hour advance prediction of sepsis using six vital signs.
Christopher Barton, Uli Chettipally, Yifan Zhou, Zirui Jiang, Anna Lynn-Palevsky, Sidney Le, Jacob Calvert, and Ritankar Das.
Computers in Biology and Medicine, 109:79–84, 2019.

[21] Machine-learning-based laboratory developed test for the diagnosis of sepsis in high-risk patients.
Jacob Calvert, Nicholas Saber, Jana Hoffman, and Ritankar Das.
Diagnostics, 9(1), 2019.

[20] Unifying particle-based and continuum models of hillslope evolution with a probabilistic scaling technique.
Jacob Calvert, Márton Balázs, and Katerina Michaelides.
Journal of Geophysical Research: Earth Surface, 123(12):3124–3146, 2018.

[19] Prediction of acute kidney injury with a machine learning algorithm using electronic health record data.
Hamid Mohamadlou, Anna Lynn-Palevsky, Christopher Barton, Uli Chettipally, Lisa Shieh, Jacob Calvert, Nicholas Saber, and Ritankar Das.
Canadian Journal of Kidney Health and Disease, 5, 2018.

[18] Multicentre validation of a sepsis prediction algorithm using only vital sign data in the emergency department, general ward and ICU.
Qingqing Mao, Melissa Jay, Jana Hoffman, Jacob Calvert, Christopher Barton, David Shimabukuro, Lisa Shieh, Uli Chettipally, Grant Fletcher, Yaniv Kerem, Yifan Zhou, and Ritankar Das.
BMJ Open, 8(1), 2018.

[17] Prediction of early unplanned intensive care unit readmission in a UK tertiary care hospital: a cross-sectional machine learning approach.
Thomas Desautels, Ritankar Das, Jacob Calvert, Monica Trivedi, Charlotte Summers, David Wales, and Ari Ercole.
BMJ Open, 7(9), 2017.

[16] Using transfer learning for improved mortality prediction in a data-scarce hospital setting.
Thomas Desautels, Jacob Calvert, Jana Hoffman, Qingqing Mao, Melissa Jay, Grant Fletcher, Christopher Barton, Uli Chettipally, Yaniv Kerem, and Ritankar Das.
Biomedical Informatics Insights, 9, 2017.

[15] Cost and mortality impact of an algorithm-driven sepsis prediction system.
Jacob Calvert, Jana Hoffman, Christopher Barton, David Shimabukuro, Michael Ries, Uli Chettipally, Yaniv Kerem, Melissa Jay, Samson Mataraso, and Ritankar Das.
Journal of Medical Economics, 20(6):646–651, 2017.

[14] Discharge recommendation based on a novel technique of homeostatic analysis.
Jacob Calvert, Daniel Price, Christopher Barton, Uli Chettipally, and Ritankar Das.
Journal of the American Medical Informatics Association, 24(1):24–29, 2016.

[13] Using electronic health record collected clinical variables to predict medical intensive care unit mortality.
Jacob Calvert, Qingqing Mao, Jana Hoffman, Melissa Jay, Thomas Desautels, Hamid Mohamadlou, Uli Chettipally, and Ritankar Das.
Annals of Medicine and Surgery, 11:52–57, 2016.

[12] Prediction of sepsis in the intensive care unit with minimal electronic health record data: A machine learning approach.
Thomas Desautels, Jacob Calvert, Jana Hoffman, Melissa Jay, Yaniv Kerem, Lisa Shieh, David Shimabukuro, Uli Chettipally, Mitchell Feldman, Chris Barton, David Wales, and Ritankar Das.
JMIR Medical Informatics, 4(3):e28, 2016.

[11] A computational approach to mortality prediction of alcohol use disorder inpatients.
Jacob Calvert, Qingqing Mao, Angela Rogers, Christopher Barton, Melissa Jay, Thomas Desautels, Hamid Mohamadlou, Jasmine Jan, and Ritankar Das.
Computers in Biology and Medicine, 75:74–79, 2016.

[10] A computational approach to early sepsis detection.
Jacob Calvert, Daniel Price, Uli Chettipally, Christopher Barton, Mitchell Feldman, Jana Hoffman, Melissa Jay, and Ritankar Das.
Computers in Biology and Medicine, 74:69–73, 2016.

[9] Quantitative analysis and prediction of G-quadruplex forming sequences in double-stranded DNA.
Minji Kim, Alex Kreig, Chun-Ying Lee, H. Tomas Rube, Jacob Calvert, Jun Song, and Sua Myong.
Nucleic Acids Research, 44(10):4807–4817, 04 2016.

[8] High-performance detection and early prediction of septic shock for alcohol-use disorder patients.
Jacob Calvert, Thomas Desautels, Uli Chettipally, Christopher Barton, Jana Hoffman, Melissa Jay, Qingqing Mao, Hamid Mohamadlou, and Ritankar Das.
Annals of Medicine and Surgery, 8:50–55, 2016.

[7] G-quadruplex formation in double strand DNA probed by NMM and CV fluorescence.
Alex Kreig, Jacob Calvert, Janet Sanoica, Emily Cullum, Ramreddy Tipanna, and Sua Myong.
Nucleic Acids Research, 43(16):7961–7970, 2015.

[6] Telomeric overhang length determines structural dynamics and accessibility to telomerase and ALT-associated proteins.
Helen Hwang, Alex Kreig, Jacob Calvert, Justin Lormand, Yongho Kwon, James Daley, Patrick Sung, Patricia Opresko, and Sua Myong.
Structure, 22(6):842–853, 2014.

Submitted and Preprints

[5] The geometry of fixed-magnetization spin systems at low temperature.
Jacob Calvert, Shunhao Oh, and Dana Randall.
Submitted. Preprint available at *arXiv:2411.03643*.

[4] Critical numerosity in collective behavior.
Jacob Calvert.
Preprint available at *arXiv:2302.01919*.

[3] A note on the asymptotic uniformity of Markov chains with random rates.
Jacob Calvert, Frank den Hollander, and Dana Randall.
Submitted. Preprint available at *arXiv:2505.01608*.

[2] Local–global correlations of dynamics on disordered energy landscapes.
Jacob Calvert and Dana Randall.
Submitted. Preprint available at *arXiv:2508.04501*.

[1] Correlation thresholds in the steady states of particle systems and spin glasses.
Jacob Calvert and Dana Randall.
Submitted.

Industry Experience

ProGrid   2022–2024
Chief Data Scientist
Navigated the legal and financial intricacies of participating in U.S. wholesale electricity markets. Developed an algorithmic trading strategy and successfully deployed it to a major U.S. market.

Forta Health   2022–2024
Staff Research Scientist
Discovered that dynamic clinical risk scores can "cheat" the metric that is most commonly used to evaluate them. Introduced a new metric that provably mitigates this potential for cheating.

Dascena   2015–2022
Roles included CTO and Chief Scientist
Led the research team that developed the first sepsis alert system to improve outcomes in a clinical trial, which was subsequently deployed to hospitals across the U.S. Coauthored and coinvestigated nine successful proposals to the NSF, NIH, and BARDA. Mentored 15 student research associates. Dascena attracted over $50 million in financing before it was acquired in 2022.

Grants

National Institutes of Health   2021–2022
Using clinical treatment data in a machine learning approach for sepsis detection $1,999,554
Role: Co-Investigator (PI: Q. Mao)

Biomedical Advanced Research and Development Authority   2021–2022
COViage rapid development of an accessible machine learning software for COVID-19 severity predictions
Role: Key personnel, chief data scientist (PI: Q. Mao) $706,534

National Institutes of Health   2021–2022
Developing an unbiased machine learning tool for prediction of acute coronary syndrome $256,585

Role: Co-Investigator (PI: Q. Mao)

National Science Foundation   2020–2021
Machine learning for screening acute respiratory distress syndrome in general and COVID-19 patient populations
Role: Co-Investigator (PI: R. Das) $225,000

Biomedical Advanced Research and Development Authority   2019–2022
Monocyte distribution width and predictive analytic algorithms for sepsis detection $7,750,000
Primary award: Beckman Coulter, Inc.   Dascena share = $1,810,150
Role: Key personnel, chief data scientist (PI: E. Crouser)

National Institutes of Health   2018–2020
Using clinical treatment data in a machine learning approach for sepsis detection $324,971
Role: Co-Investigator (PI: R. Das)

National Institutes of Health   2018–2020
A computational approach to early sepsis detection $310,782
Role: Co-Investigator (PI: R. Das)

National Institutes of Health   2017–2018
Autonomous system supporting patient-specific transfer and discharge decisions $347,772
Role: Co-Investigator (PI: R. Das)

National Science Foundation   2016–2017
An integrated platform for the analysis of patient health record data to enable predictive clinical decision support
Role: Co-Investigator (PI: R. Das) $224,903

Research Supervision

I supervised the following students during their research internships at Dascena and Forta Health.

Period	Name	Student Type	Institution	Next
06/2023–06/2024	Arely Aguirre	undergraduate	UCLA	UCLA
06/2021–12/2021	Fernando Lejarza	PhD	UT Austin	Facebook
06/2021–09/2021	Jieru Shen	master's	Columbia University	American Express
06/2021–09/2021	Maxime Faucher	master's	Columbia University	Nauto
02/2020–05/2021	Saarang Panchavati	undergraduate	UC Berkeley	UCLA PhD
11/2019–05/2020	Jenish Maharjan	master's	Villanova University	Dascena
05/2019–10/2019	Angier Allen	PhD	UC Davis	Dascena
05/2019–08/2019	Rohan Narain	undergraduate	UC Berkeley	Leidos
09/2018–08/2019	Abhinav Bhardwaj	undergraduate	UC Berkeley	Yale PhD
08/2018–12/2018	Christopher Fan	undergraduate	UC Berkeley	Zendesk

01/2018–12/2018	Sidney Le	undergraduate	UC Berkeley	Dascena
05/2018–08/2018	Manan Khattar	undergraduate	UC Berkeley	Amelia
05/2018–08/2018	Ryan Roggenkemper	undergraduate	UC Berkeley	UC Berkeley MA
01/2017–08/2018	Yifan Zhou	undergraduate	UC Berkeley	U. of Michigan MS
01/2017–08/2018	Zirui Jiang	undergraduate	UC Berkeley	Johns Hopkins PhD
11/2015–08/2016	Melissa Jay	undergraduate	Colorado College	Dascena

Recent Invited Talks

- Georgia Tech Stochastics Seminar, August 2025.

- Stanford Probability Seminar, April 2025.

- Simons Laufer Mathematical Sciences Institute (SLMath) Joint Seminar, April 2025.

- Santa Fe Institute Seminar, January 2025.

- Santa Fe Institute Seminar, November 2024.

- Algorithms and Randomness Center (ARC) Colloquium at Georgia Tech, March 2024.

- Arizona State University, Forrest Group Seminar, November 2022.

- UC Berkeley, Yu Group Seminar (virtual), August 2022.

- University of Wisconsin–Madison Probability Seminar (virtual), February 2022.

- UC Berkeley Probability Seminar (virtual), February 2022.

- Online Open Probability School (virtual), June 2020.

Teaching Experience

GSI for Introduction to Statistics (STAT 2), UC Berkeley
Spring 2022 (Dr. Eaman Jahani): Led discussion sections; held office hours; graded problem sets, exams.

GSI for Probability Theory (MATH C218A), UC Berkeley
Fall 2021 (Prof. Steven Evans and Prof. Shirshendu Ganguly): Prepared problem sets and solutions; held office hours; graded problem sets and exams.

GSI for Concepts of Probability (STAT 134), UC Berkeley
Spring 2021, Fall 2020, Spring 2019 (Dr. Adam Lucas): Led discussion sections and review sessions; prepared exams, quizzes, and discussion worksheets; graded quizzes and exams.

GSI for Stochastic Processes (STAT 150), UC Berkeley
Fall 2019 (Prof. Jim Pitman) Led discussion sections and review sessions; prepared problem sets, exams, and solutions; graded problem sets and exams.
Fall 2018 (Dr. Brett Kolesnik) Guest-lectured; graded problem sets and exams.

GSI for Game Theory (STAT 155), UC Berkeley
Fall 2018 (Prof. Shirshendu Ganguly): Graded problem sets and exams.

TA for Computational Tools for Biological Data (BIOE 310), University of Illinois at Urbana-Champaign
Spring 2015 (Prof. Jian Ma): Held office hours; graded problem sets.

TA for Tissue Engineering (BIOE 476), University of Illinois at Urbana-Champaign
Fall 2014 (Prof. Gregory Underhill): Graded problem sets and exams.

TA for Cellular Bioengineering (BIOE 206), University of Illinois at Urbana-Champaign
Fall 2013 (Prof. Sua Myong): Guest-lectured; hosted review sessions; advised final projects; graded.

TA for Bioenergetics (BIOE 220), University of Illinois at Urbana-Champaign
Fall 2013 (Prof. Andrew Smith): Prepared problem sets and solutions.

Academic and Community Service

- Peer review. Ad hoc peer review for *Probability Theory and Related Fields*, *STOC 2025*, *SIAM Journal on Computing*, *Annales de l'Institut Henri Poincaré D*, *ITCS 2024*, *LATIN 2024*, *npj Digital Medicine*, *Scientific Reports*, *BMC Medical Informatics and Decision Making*, *Critical Care Medicine*, *Journal of Medical Internet Research*, *BMC Medicine*, and *BMC Medical Research and Methodology*.

- Service to Berkeley's National Scholarships Office. I am a panelist on Berkeley's nomination committees for the Astronaut, Marshall, Mitchell, and Rhodes Scholarships (2023, 2024). I review applications and conduct mock interviews for nominees.

- Co-organizing the Berkeley Probability Seminar. For the 2021–2022 academic year, I co-organized the Berkeley Probability Seminar with Prof. Alan Hammond.

- Service to the Goldwater Scholarship community. Since 2020, I have served as a mentor in the Goldwater Scholarship community's mentorship program. I meet one-on-one with current Goldwater scholars each month to discuss research and share career advice.

- Service to the National and International Scholarships Program. Since 2016, I have regularly served on panels, as a mock interviewer, and as an application reviewer for the office at the University of Illinois at Urbana-Champaign which prepares and nominates students to compete for prestigious fellowships.

- Service to the Berkeley Statistics Department. For the 2018–2019 academic year, I represented the Statistics Department at the Berkeley Graduate Assembly.

- Service to the University of Bristol School of Mathematics. For the 2015–2016 academic year, I served as the liaison between the taught-course graduate math students and the science faculty.

- Instructor, Girls' Adventures in Math, Engineering, and Science (GAMES) Camp, Summer 2014. Led 36 high school girls through physiology labs at the University of Illinois at Urbana-Champaign (UIUC).

- Service as an *Engineering Ambassador* at UIUC (2013–2015). Conducted educational outreach to K–12 students from backgrounds that are underrepresented in engineering; participated in after-school programs for fourth graders at Booker T. Washington STEM Academy (Champaign, IL).

- Service as a *Student Consultant on Teaching* at UIUC (2013–2015). Led course policy discussions at new faculty orientation; observed classrooms to provide feedback to lecturers.

- Dean's Student Advisory Committee (2013–2014). Collaborated with deans of the College of Engineering at UIUC to incorporate student feedback into the design of computer labs; organized informational sessions on undergraduate research opportunities, drawing several hundred students.

- Quantitative Biology Outreach Program (2012–2015). Organized 12-week quantitative biology lecture series for students at Jefferson Middle School (Champaign, IL) with Prof. Sua Myong; provided educational materials to teachers in the surrounding area.

Last updated: August 22, 2025