Larry Han

Curriculum Vitae, Updated October 2025

Contact

Northeastern University
Department of Public Health & Health Sciences
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Primary Appointments

Assistant Professor of Biostatistics in Public Health and Health Sciences
Northeastern University, Aug 2023–Present

Postdoctoral Fellow in Health Care Policy (Statistics)
Harvard Medical School, May 2023–Aug 2023
Advisor: Sharon-Lise Normand

Secondary Appointments

Affiliate Investigator
Vaccine and Infectious Disease Division, Fred Hutch Cancer Center, Jan 2024–Present

Education

Ph.D. in Biostatistics
Harvard University, May 2023
Advisors: Tianxi Cai, Lorenzo Trippa

A.M. in Biostatistics
Harvard University, May 2020

M.Phil. in Healthcare Operations
University of Cambridge, Jul 2018
Distinction
Advisor: Stefan Scholtes

M.A. in Global Affairs
Tsinghua University, Jul 2017
Outstanding Master's Thesis Award
Advisor: Michael Powers

B.S. in Public Health, Biostatistics
University of North Carolina at Chapel Hill, May 2016
Highest Honors, Highest Distinction
Advisors: Michael Hudgens, Joseph Tucker

Awarded Grants

NIH NIAID K01

- Title: Causal Machine Learning Methods to Study Individual Vaccine Efficacy Using Multi-Source Data
- Role: Principal Investigator
- Dates: Sep 2025 – Aug 2030
- Amount: $948,963

Northeastern University Seed Grant

- Title: Fair and Efficient Causal Machine Learning of Individual Vaccine Efficacy
- Role: Principal Investigator
- Dates: Apr 2025 – Mar 2026
- Amount: $18,000

NIH NIMH R01MH130213

- Title: Robust Learning Approaches for Assessing Effects and Effect Heterogeneity of Real World Antipsychotic Treatment Regimes in Elderly Persons with Schizophrenia

- Role: Co-Investigator (PI's: Marcela Horvitz-Lennon and Sharon-Lise Normand)
- Dates: Sep 2024 – Oct 2027
- Amount: $96,571

NIH NHLBI R01HL162893

- Title: Modern Analytics to Improve Quality & Outcome Assessments Following Congenital Heart Surgery
- Role: Co-Investigator (PI's: Sharon-Lise Normand and Sara Pasquali)
- Dates: Sep 2023 – May 2026
- Amount: $119,035

Submitted Grants

Patient Centered Outcomes Research Institute (PCORI) Methods PFA

- Title: Robust Personalized Causal Machine Learning with Finite-Sample Valid Uncertainty Quantification
- Role: Principal Investigator
- Proposed Dates: Mar 2026 – Feb 2029
- Proposed Amount: $1,068,431

NIH R01

- Title: A Network Medicine Framework to Map Dietary and Vitamin Interventions for Stroke Prevention and Recovery
- Role: Co-Investigator, 10% effort (PI: Albert Laszlo-Barabasi)
- Proposed Dates: Apr 2026 – Mar 2031
- Proposed Amount: $4,291,771

Honors & Awards

2025 Institute of Mathematical Statistics New Researcher Travel Award
2025 Richard E. Clark Memorial Paper, Society of Thoracic Surgeons Annual Meeting
2023 American Statistical Association Student Paper Award, Health Policy Statistics Section
2023 International Conference on Health Policy Statistics Student Paper Travel Award
2022 Western North American Region of the International Biometric Society Spring Meeting Best Oral Student Paper Presentation Award
2022 American Statistical Association Biopharmaceutical Section Scholarship Award
2022 American Statistical Association Young Investigator Award, Statistics in Epidemiology
2022 American Causal Inference Conference New Researcher Award
2022 Institute of Mathematical Statistics Hannan Graduate Student Travel Award
2022 Rose Fellowship, Assistance Publique-Hopitaux de Paris
2021 John Van Ryzin Award
2021 American Statistical Association Biopharmaceutical Regulatory-Industry Statistics Workshop Student Poster Award
2021 New England Statistics Symposium Student Poster Award
2021 Best Student Poster, Harvard T.H. Chan Poster Day
2019 25 Under 25 Leaders in US-China Relations, China Hands
2017 Gates Cambridge Scholarship
2016 Schwarzman Scholarship
2016 Phillips Ambassadors 10-Year Anniversary Award
2016 Order of the Golden Fleece
2016 Delta Omega Award of Excellence
2015 Goldwater Scholarship
2014 Phillips Ambassadorship
2012 Morehead-Cain Scholarship
2012 National Merit Scholarship

Working papers, pre-prints & publications

Research Interests

Methodological: Causal inference; Conformal inference; Data fusion; Federated learning; Surrogates; Survival analysis; Transfer learning

Applications: Cardiovascular disease; Health services research; Infectious diseases; Mental health

Working Papers

[6] Liu, Y.; Levis, A.; Yang, S.; Gilbert, P.; **Han, L.** (2025+). "Federated Causal Survival Analysis Under Competing Risks." *In preparation.*

[5] **Han, L.;** Zhang, Y.; Lise-Normand, S.; Duan, R. (2025+). "Heterogeneous Causal Effect Estimation in Underrepresented Populations: Federated and Transfer Learning Approaches." *In preparation.*

[4] Yang, L.; **Han, L.;** Lise-Normand, S.; Daniels, M. (2025+). "Bayesian Nonparametrics for Causal Healthcare Provider Profiling." *In preparation.*

[3] Liu, Y.; Dorantes-Gilardi, R.; **Han, L.;**, Barabasi, A-L. "The Uneven Impact of Venues on Creative Careers." (2025+). *In preparation.*

[2] Vasan, K.; Shekhtman, L.; Polgar, J.; **Han, L.;** Barabasi, A-L. (2025+). "Gender-based Segregation in Chess Generates Elite Performance." *In preparation.*

[1] **Han, L.;** Zhang, Y.; Nathan, M.; Mayer, J.; Pasquali, S.; Zelevinsky, K.; Duan, R. Lise-Normand, S. (2024+). "A Transfer Learning Causal Approach to Evaluate Racial/Ethnic and Geographic Variation in Outcomes Following Congenital Heart Surgery." *Arxiv, In preparation.*

Revision & Under Review

[6] Rubinstein, M.; Agniel, D.; **Han, L.;** Horvitz-Lennon, M.; Normand, S-L. (2024+). "Bounding Causal Effects with an Unknown Mixture of Informative and Non-informative Censoring." *Arxiv, Major revision requested at Journal of Causal Inference.*

[5] Gao, C.; Gilbert, P.; **Han, L.** (2024+). "On the Role of Surrogates in Conformal Inference of Individual Causal Effects." *Arxiv, R&R requested at Journal of the Royal Statistical Society, Series B.*

[4] Gao, C. and **Han, L.** (2025+). "FACTOR: Fairness-Aligned Conformal Transport for Multivariate Mixed Outcomes." *Under review.*

[3] Liu, Y.; Levis, A.; Zhu, K.; Yang, S.; Gilbert, P.; **Han, L.** (2025+). "Targeted Data Fusion for Causal Survival Analysis Under Distribution Shift." *Arxiv, Under review.*

- **Yi Liu was awarded the 2025 Institute of Mathematical Statistics Hannan Graduate Student Travel Award**

[2] Lise-Normand, S.; Zelevinsky, K.; Li, Y.; **Han, L.** (2025+). "Causal Inference for Healthcare Profiling in Low-Event Settings: Optimal Weighting for Risk Adjustment in Congenital Heart Surgical Centers." *Under review.*

[1] **Han, L.;** Zhang, Y.; Duan, R.; Lise-Normand, S. "Transfer Learning for Fair Causal Subgroup Effect Estimation." (2025+) *Under review.*

Publications

Statistics and Machine Learning

[53] Liu, Y.; Zhu, K.; **Han, L.;** Yang, S. (2025). COADVISE: Covariate Adjustment with Variable Selection in Randomized Controlled Trials. *Journal of the Royal Statistical Society, Series A (JRSS-A), accepted.*

[52] Gao, C.; Gilbert, P.; **Han, L.** (2025). "Bridging Fairness and Efficiency in Conformal Inference: A Surrogate-Assisted Group-Clustered Approach." *Proceedings of the 42nd International Conference on Machine Learning (ICML 2025)*

[51] Gilbert, P.; Peng, J.; **Han, L.;** Lange, T.; Lu, Y.; Nie, L.; Shih, Mei-C.; Waddy, S.P.; Wiley, K.; Yann, M.; Zafari, Z.; Ghosh, D.; Follmann, D.; Juraska, M.; Diaz, I. (2025). "A Surrogate Endpoint Based Provisional Approval Causal Roadmap, Illustrated by Vaccine Development." *Biostatistics.*

[50] **Han, L.;** Hou, J.; Cho, K.; Duan, R.; Cai, T. (2025). "Federated Adaptive Causal Estimation (FACE) of Target Treatment Effects." *Journal of the American Statistical Association (JASA).*

- **2022 American Statistical Association Young Investigator Award, Section on Statistics in Epidemiology**

[49] Guo, Z.; Li, X; **Han, L.;** Cai, T. (2025). "Robust Inference for Federated Meta-Learning." *Journal of the American Statistical Association (JASA).*

[48] Liu, Y.; Levis, A; Lise-Normand, S.; **Han, L.** (2024). "Multi-Source Conformal Inference under Distribution Shift." *Proceedings of the 41st International Conference on Machine Learning (ICML 2024).*

[47] **Han, L.;** Li, Y.; Niknam, B.; Zubizarreta, J. (2024). "Privacy-Preserving, Communication-Efficient, and Target-Flexible Causal Inference for Hospital Quality Measurement." *Annals of Applied Statistics (AOAS).*

- **2023 American Statistical Association Student Paper Award, Health Policy Statistics Section**
- **2022 Western North American Region of the International Biometric Society Spring Meeting Best Oral Student Paper Presentation Award**

[46] **Han, L.;** Arfe, A.; Trippa, L. (2024). "Sensitivity Analyses of Clinical Trial Designs: Selecting Scenarios and Summarizing Operating Characteristics." *The American Statistician.*

- **2021 New England Statistics Symposium Student Poster Award**

[45] **Han, L.;** Zhu, S.; Zubizarreta, J. (2023). "Multiply Robust Federated Estimation of Targeted Average Treatment Effects." *Advances in Neural Information Processing Systems 36 (NeurIPS 2023).*

- **Featured article in the 2024 American Medical Informatics Association Informatics Summit "AI and Data Science Year in Review".**

[44] **Han, L.;** Wang, X.; Cai, T. (2022). "Identifying Surrogate Markers in Real-World Comparative Effectiveness Research." *Statistics in Medicine.*

- **2021 John Van Ryzin Award, ENAR Distinguished Student Paper**

[43] Wang, X.; Parast, L.; **Han, L.;** Tian, L; Cai, T. (2022). "Robust Approach to Combining Multiple Markers to Improve Surrogacy." *Biometrics.*

Editorials

[42] **Han, L.** (2025) "Considerations for Using Clinical Practice Data to Study COVID-19 Vaccines in Patients with Cancer." *JAMA Oncology.*

[41] **Han, L.** (2025). "Addressing Distribution Shift for Robust and Trustworthy Prediction and Causal Inference in Clinical AI Settings." *JAMA Network Open.*

[40] **Han, L.** (2024). "Truncated, Not Forgotten – Handling Left Truncation in Time-to-Event Studies." *NEJM Evidence.*

[39] **Han, L.** (2023). "Breaking Free from the Hazard Ratio: Embracing the Restricted Mean Survival Time in Clinical Trials." *NEJM Evidence.*

Health

[38] Nathan, M.*; **Han, L.*;** Zelevinsky, K.; Abing, H.; Mayer, J.; Normand, S-L.; Pasquali, S. (2025). "Understanding Mortality Following Congenital Heart Surgery: What Do Procedure-Specific Factors Add?" *The Annals of Thoracic Surgery, accepted.* [***Co-first authors**].

- **2025 Richard E. Clark Memorial Paper, Society of Thoracic Surgeons**

[37] Lise-Normand, S.; Zelevinsky, K.; **Han, L.;** Nathan, M.; Abing, H.; Mayer, J.; Pasquali, S. (2025). "Improving Risk Adjustment in the Assessment of Congenital Heart Center Surgical Quality." *The Annals of Thoracic Surgery.*

[36] Bather, J.; **Han, L.;** Bennett, A.; Elliott, L.; Goodman, M. (2024). "Detecting Univariate, Bivariate, and Overall Effects of Drug Mixtures Using Bayesian Kernel Machine Regression." *The American Journal of Drug and Alcohol Abuse.*

[35] Neuraz, A.; Lerner, I.; Birot, O.; Arias, C.; **Han, L.;** Bonzel, C-L.; Cai, T.; Hyunh, K.; Coulet, A. (2024). "TAXN: Translate Align Extract Normalize, a Multilingual Extraction Tool for Clinical Texts." *MEDINFO.*

[34] Sperotto, F.; Gutierrez-Sacristan, A.; Makwana, S.; ... 4CE **(Han, L.)** (2023). "Clinical Phenotypes and Outcomes in Children with Multisystem Inflammatory Syndrome Across SARS-CoV-2 Variant Eras: a Multinational Study from the 4CE Consortium." *eClinicalMedicine.*

[33] Dagliati, A.; Strasser, Z.; Abad, Z.; ... 4CE **(Han, L.)** (2023). "Characterization of long COVID temporal sub-phenotypes by distributed representation learning from electronic health record data: a cohort study." *eClinicalMedicine.*

[32] Zhang, H.; Honerlaw, J.; Maripuri, M.; ... 4CE (**(Han, L.)** (2023). "Potential pitfalls in the use of real-world data for studying long COVID." *Nature Medicine.*

[31] Day, S.; Hlatshwako, T.G.; Lloyd, A.; **Han, L.;** Tang, W.; Bayus, B.; Tucker, J.D. (2022). "Evaluating and Volunteering for Crowdsourced Interventions: Cross-Sectional Data on COVID-19 Safety from a University Survey." *PLOS One.*

[30] Weber, G.; Hong, C.; Xia, Z; ... 4CE **(Han, L.);** Kohane, I.; Cai, T.; Brat, G. (2022). "International Comparisons of Laboratory Values from the 4CE Collaborative to Predict COVID-19 Mortality." *NPJ Digital Medicine.*

[29] **Han, L.;** Tang, W.; Tiarney, R.; et al. (2021). "Joint International Consensus Statement on Crowdsourcing Challenge Contests in Health and Medicine: Results of a Modified Delphi Process." *BMJ Open.*

[28] Nauffal, V.; Marstrand, P.; **Han, L.;** et al. (2021). "Worldwide Differences in Primary Prevention Implantable Cardioverter Defibrillator Utilization and Outcomes in Hypertrophic Cardiomyopathy." *European Heart Journal.*

[27] Day, S.; Li, C.; Hlatshwako, T.; Abu-Hijleh, F.; **Han, L.;** Deitelzweig, C.; Bayus, B.; Ramaswamy, R.; Tang, W.; Tucker J. (2021). "Assessment of a Crowdsourcing Open Call for Approaches to University Community Engagement and Strategic Planning During COVID-19." *JAMA Network Open.*

[26] Wang, C.*; **Han, L.*;** Stein, G.; et al. (2020). "Crowdsourcing in Health and Medical Research: A Systematic Review." *Infectious Diseases of Poverty.* **[*Co-first authors]**.

[25] Sidhu, K.; **Han, L.;** Picard, K.; et al. (2020). "Ventricular Tachycardia in Cardiolaminopathy: Characteristics and Considerations for Device Programming." *Heart Rhythm.*

[24] Marston, N.; **Han, L.;** Olivotto, I.; et al. (2020). "Clinical Characteristics and Cardiovascular Outcomes in Childhood-Onset Hypertrophic Cardiomyopathy Compared with Adult-Onset Disease." *European Heart Journal.*

[23] Marstrand, P.; **Han, L.;** Day, S.; et al. (2020). "Hypertrophic Cardiomyopathy with Left Ventricular Systolic Dysfunction: Insights from the SHaRe Registry." *Circulation.*

[22] McCoy, T.; **Han, L.;** Pellegrini, A.; et al. (2020). "Stratifying Risk for Dementia Onset Using Large-Scale Electronic Health Record Data: A Retrospective Cohort Study." *Alzheimer's & Dementia: The Journal of the Alzheimer's Association.*

- **Featured article**

[21] Lakdawala, N.; Olivotto, I.; Day, S.; **Han, L.;** et al. (2020). "Associations Between Female Sex, Sarcomere Variants and Clinical Outcomes in Hypertrophic Cardiomyopathy." *Circulation: Genomic and Precision Medicine.*

[20] Halpaap, B.; Tucker, J.; Mathanga, D.; Juban, N.; Awor, P.; Saravia, N.; **Han, L;** et al. (2020). "Social Innovation in Global Health: Sparking Location Action." *Lancet Global Health.*

[19] **Han, L.;** Fine, J.; Robinson, S.; Boyle, A.; Freeman, M.; Scholtes, S. (2019). "Is Seniority of Emergency Physician Associated with the Weekend Effect?" *Emergency Medicine Journal.*

- **[Invited commentary] from the President of the Royal College of Emergency Medicine**

[18] Eberly, L.; Day, S.; Ashley, E.; Jacoby D.; Jefferies; J.; Colan, S.; Rossano, J.; Semsarian, C.; Pereira, A.; Olivotto, I.; Ingles, J.; Seidman, C.; Channaoui, N.; Cirino, A.; **Han, L.;** Ho, C.; Lakdawala, N. (2019). "Association of Race with Disease Expression and Clinical Outcomes Among Patients with Hypertrophic Cardiomyopathy." *JAMA Cardiology.*

[17] Liu, F.; Qin, Y.; Meng, S.; Zhang, W.; Tang, W.; **Han, L.;** et al. (2019). "HIV Self-Testing among MSM in China: A Qualitative Implementation Research Study." *Journal of Virus Eradication.*

[16] Li, K.; Tang, W.; Wu, D.; Huang, W.; Feng, W.; Lee, A.; Feng, H.; Pan, S.; **Han, L.;** Mak, V.; Yang, L; Tucker, J. (2019). "Pay-it-forward Dual Gonorrhea/Chlamydia Test Uptake among MSM in China: A Pragmatic, Quasi-Experimental Study." *The Lancet Infectious Diseases.*

[15] **Han, L.;** Chen, A.; Wei, S.; et al. (2018). "Crowdsourcing in Health & Health Research: A Practical Guide." *World Health Organization.*

[14] Qin, Y.*; **Han, L.*;** Babbit, A.; et al. (2018). "Experiences Using and Organizing HIV Self-Testing." *Journal of the International AIDS Society.* [***Co-first authors**].

[13] **Han, L.;** Hudgens, M.; Emch, M.; et al. (2017). "RTS,S/AS01 Malaria Vaccine Efficacy is Not Modified by Seasonal Precipitation: Results from a Phase 3 Randomized Controlled Trial in Lilongwe, Malawi." *Scientific Reports.*

[12] Zhang, T.*; Liu, C.*; **Han, L.*** et al. (2017). "Community Engagement in Sexual Health and Uptake of HIV Testing and Syphilis Testing Among MSM in China: a Cross-sectional Online Survey." *Journal of the International AIDS Society.* [***Co-first authors**].

[11] SESH Study Group **(Han, L.);** Tucker, J. (2017). "Crowdsourcing to Promote HIV Testing Among MSM in China: Study Protocol for a Stepped Wedge Randomized Controlled Trial." *Trials.*

[10] Wong, N.; Tang, W.; **Han, L.** et al. (2017). "MSM HIV Testing Following an Online Testing Intervention in China." *BMC Infectious Diseases.*

[9] Tang, W.; Mao, J.; Tang, S.; Liu, C.; Mollan, K.; Cao, B.; Wong, T.; Zhang, Y.; Hudgens, M.; Qin, Y.; **Han, L.;** et al. (2017). "Disclosure of Sexual Orientation to Health Professionals in China: Results from an Online Cross-Sectional Study." *Journal of the International AIDS Society.*

[8] Hu, J.; Gu, X.; Tao, X.; Qian, Y.; Babu, G.; Wang, G.; Liao, M.; **Han, L.;** Kang, D.; Tang, W. (2017). "Prevalence and Trends of HIV, Syphilis, and HCV in Migrant and Resident MSM in Shandong, China: Results from a Serial Cross-Sectional Study." *PLoS One.*

[7] **Han, L.;** Wei, C.; Muessig, K.; et al. (2016). "HIV Test Uptake Among MSM in China: Implications for Enhanced HIV Test Promotion Campaigns Among Key Populations." *Global Public Health.*

[6] Tang, W*.; **Han, L*.;** Best, J*.; et al. (2016). "Crowdsourcing HIV Test Promotion Videos: A Non-inferiority Randomized Controlled Trial in China." *Clinical Infectious Diseases.* [***Co-first authors**].

[5] Bien, C.; Best, J.; Muessig, K.; Wei, C.; **Han, L.;** Tucker, J. (2015). "Gay Apps for Seeking Sex Partners in China: Implications for MSM Sexual Health." *AIDS and Behavior.*

[4] Best, J.; Tang, W.; Zhang, Y.; **Han, L.;** et al. (2015). "Sexual Behaviors and HIV/Syphilis Testing Among Transgender Individuals in China: Implications for Expanding HIV Testing Services." *Sexually Transmitted Diseases.*

[3] **Han, L.;** Bien, C.; Wei, C.; et al. (2014). "HIV Self-Testing Among Online MSM in China: Implications for Expanding HIV Testing Among Key Populations." *Journal of Acquired Immune Deficiency Syndromes.*

[2] Tucker, J.; Muessig K.; Cui, R.; Bien, C.; Lo, E.; Lee, R.; Wang, K.; **Han, L.;** et al. (2014). "Organizational Characteristics of HIV/Syphilis Testing Services for MSM in South China: a Social Entrepreneurship Analysis and Implications for Creating Sustainable Service Models." *BMC Infectious Diseases.*

[1] Wei, C.; Muessig, K.; Bien, C.; Yang, L.; Meng, R.; **Han, L.;** Yang, M.; Tucker, J. (2014). "Strategies for Promoting HIV Testing Uptake: Willingness to Receive Couple-Based and Collecting HIV Testing Among a Cross-Sectional Online Sample of MSM in China." *Sexually Transmitted Infections.*

Teaching

Teaching Awards

2022-2023 Certificate of Distinction in Teaching, Harvard Faculty of Arts and Sciences
2021-2022 Certificate of Distinction in Teaching, Harvard T.H. Chan School of Public Health
2020-2021 Certificate of Distinction in Teaching, Harvard T.H. Chan School of Public Health

Primary Instructor

Generalized Linear Models (PHTH 6830, Northeastern), Instructor, Fall 2025

- Developed the curriculum for this new core course for the MS in Statistics. Linear, logistic, time-to-event, and time series analyses. Introduces some modern ML methods.

Methods for Observational Research II (HSCI 5151, Northeastern), Instructor, Fall 2025, Spring 2024

- Developed the curriculum for designing and analyzing observational studies. Focuses on using open-source software and open-science principles to conduct and interpret RWE studies.

Causal Inference (PHTH 6800, Northeastern), Instructor, Spring 2025

- Developed the curriculum for this first course in causal inference at the Ph.D. level, emphasizing potential outcomes.

Ph.D. Qualifying Exam (Summer Course, Harvard), Instructor, Summer 2021

- Teaching content review and problem-solving in probability and inference to Harvard Biostatistics Ph.D. students in preparation for the theory and methods portion of the qualifying exam.

The Re-Emergence of Infectious Diseases (HNRS 396, UNC), Instructor, Spring 2016

- One of eight undergraduates selected to build the curriculum and teach a course, titled "The Re-emergence of Infectious Diseases: From Cholera to Ebola and Beyond"

Teaching Fellow

Causal Inference with Applications (STAT 286, Harvard), TF, Fall 2022

- Harvard Statistics Department's graduate-level course on causal inference, taught by Prof. Kosuke Imai
- TF rating: 4.7/5.0; class size: 50

Design of Experimental/Non-experimental Studies (STAT 293, Harvard), TF, Spring 2022

- Harvard Statistics Department's graduate-level reading course on causal inference, focusing primarily on discussing new papers, taught by Prof. Jose Zubizarreta
- TF rating: 4.9/5.0; class size: 15

Applied Survival Analysis (BST 223, Harvard), TF, Spring 2022

- Harvard Biostatistics Department's masters-level survival analysis course, taught by Prof. Sebastien Haneuse
- TF rating: 4.9/5.0; class size: 100

Statistical Inference (BST 222, Harvard), Head TF, Fall 2019, 2020, 2021, 2022

- Head TF responsible for developing content and teaching labs for the masters' level statistical inference course, taught by Prof. Rui Duan (2021, 2022) and David Wypij (2019, 2020)
- TF ratings: 4.7/5.0 (2019); 4.8/5.0 (2020); 4.7/5.0 (2021); class size: 70

Advanced Topics in Clinical Trials (BST 238, Harvard), Head TF, Spring 2021

- Designing content and teaching select lectures for advanced topics in clinical trials, e.g., surrogate endpoints; group sequential methods; meta-analyses, taught by Prof. David Wypij
- TF rating: 4.7/5.0; class size: 20

Principles of Clinical Trials (BST 214, Harvard), Head TF, Spring 2020, 2021

- Revising content for a clinical trials course for clinicians and policymakers interested in the scientific, policy, and management aspects of clinical trials, taught by Prof. David Wypij

– TF rating: 4.8/5.0 (2020); 4.9/5.0 (2021); class size: 70

International Relations (GLBL 394, UNC), TA, Spring 2015, 2016

– One of 15 students who led a weekly seminar-style recitation section of 300 undergraduates on international relations (recitation size: 20)

Advising & Mentoring

Supervision

Yuyao Wang (Postdoctoral advisor)

– Northeastern University, Department of Public Health and Health Sciences, Postdoctoral fellow, Aug 2025–Present

Zhiyue Daisy Mo (Ph.D. dissertation advisor)

– Northeastern University, Department of Public Health and Health Sciences Ph.D. Candidate, Aug 2025–Present

Yuxin Huang (Ph.D. dissertation advisor)

– Northeastern University, Department of Public Health and Health Sciences Ph.D. Candidate, Aug 2025–Present

Chenyin Gao (Co-mentor on postdoctoral projects)

– Harvard University, Department of Biostatistics, Postdoctoral fellow, Sep 2024–Jun 2025

– First position: Google, Data Scientist

Ke Zhu (Co-mentor on postdoctoral projects)

– North Carolina State University, Department of Statistics, Postdoctoral fellow, Dec 2024–Present

Yi Liu (Ph.D. co-advisor with Shu Yang)

– North Carolina State University, Department of Statistics, Ph.D. Candidate, Apr 2023–Present

– 2025 IMS Hannan Graduate Student Travel Award, 2025 Duke Industry Statistics Symposium Best Poster Award, 2025 New England Statistics Sympoisum Best Student Presentation Award, 2025 ASA Georgia Chapter Best Student Poster Award

Yixuan Liu (Ph.D. dissertation committee member, Advisor: Albert-Laszlo Barabasi)

– Northeastern University, Network Science Institute, Ph.D. Candidate, Nov 2023–Present

Victor Castro (Ph.D. dissertation committee member, Advisor: Justin Manjourides)

– Northeastern University, Population Health Sciences, Ph.D. Candidate, Nov 2024–Present

Victoria Nielsen (Ph.D. dissertation committee member, Advisor: Justin Manjourides)

– Northeastern University, Population Health Sciences, Ph.D. Candidate, Oct 2024–Present

Kishore Vasan (Ph.D. dissertation committee member, Advisor: Albert-Laszlo Barabasi)

– Northeastern University, Network Science Institute, Ph.D., Nov 2023–May 2025

Jeremy Rubin (Ph.D. dissertation paper, Advisor: Jarcy Zee)

– University of Pennsylvania, Department of Biostatistics, Ph.D., Oct 2023 – May 2025

– First position: Assistant Professor, Department of Epidemiology and Biostatistics, University of Maryland

Zhu Lucy Shen (Independent study)

– Harvard University, Department of Biostatistics, Ph.D. Candidate, Mar 2022–Present

Service

External Professional Activities

Council of Sections Representative, American Statistical Association, 2026-2028

- Elected to represent the Statistics in Epidemiology Section within the Council of Sections; includes voicing concerns, proposing ideas, and advocating for the needs of the section.

Patient-Centered Outcomes Research Institute (PCORI) Scientific Reviewer, 2025

- Serving on the Merit Review Panel to evaluate applications for PCORI's Improving Methods for Conducting Patient-Centered Comparative Clinical Effectiveness RFA.

New England Rare Disease Statistics (NERDS) Workshop Organizing Committee, 2025

- Launched the inaugural poster competition and served as Poster Committee Chair

Annual Symposium on Risks and Opportunities of AI in Pharmaceutical Medicine Steering Committee, 2024-2025

- Organizing poster submissions and review

Harvard Biostatistics, External Reviewer, 2025

- Provided feedback through focus groups on the departmental qualifying exam

American Statistical Association Boston Pharmaceutical Statistics Symposium Scientific Committee, 2024

- Planning events and judging submissions for posters, talks, and student awards subcommittee

American Causal Inference Conference (ACIC), Abstract Reviewer, 2024

- Reviewing and scoring abstracts for the conference

American Statistical Association Statistics in Epidemiology Young Investigator Award, Paper Award Committee, 2023, 2024, 2025

- Reviewing and scoring papers for the Young Investigator Award for JSM

Data Science in Action: Machine Learning for Self-Driving Cars, 2023-Present

- Providing mentorship to high school students from underrepresented backgrounds

Morehead Cain Foundation, Selections Interviewer, 2018–Present

- Interviewing and evaluating high school applicants for the nation's first merit scholarship

Rhodes-Schwarzman, Orientation Facilitator, 2019–2022

- Facilitating the *Leading Lives* workshop for incoming and outgoing Schwarzman Scholars

Carolina Collective Initiative, Steering Committee, May–Aug 2020

- Organized an open call and judged ideas for the reopening of UNC campus during COVID-19

University Service

Northeastern Public Health and Health Sciences, Committee, Sep 2023–Present

- Seminar organizing committee
- Planning curriculum for the MS in Statistics and MS in Real World Evidence programs
- Governance, policies, and procedures committee

Harvard Biostatistics Student Committee, Co-President, Aug 2021–May 2023

- Organizing town hall meetings and small group discussions to represent Ph.D. student interests, including recruitment, qualifying exams, academics, student-life, and mental health

Harvard Graduate Student Council, Representative, Sep 2018–May 2021

- Evaluating funding proposals for GSAS conferences and activities

Cambridge Judge Teaching Committee, Representative, Jan–June 2018

– Assessed student and professor feedback for courses at Cambridge Judge Business School and developed a guidance for improving research programs

Journal of Schwarzman College, Co-Founder and Editor, Sep 2016–July 2017

– Established Schwarzman College's first journal aggregating global perspectives on China and developed a framework for a quarterly print publication

Tsinghua Graduate Student Union, Representative, Aug 2016–July 2017

– Translated over 300 museum exhibit labels for the Tsinghua University Art Museum
– English voice-over for Xinhua Net's explanatory video of China's Two Sessions conference

Editorial Service

Associate Editor

– *Health Services and Outcomes Research Methodology*, 2024–Present
– *Journal of Causal Inference*, 2023–Present

Reviewer

Statistics & Biostatistics (26×)

– *Annals of Applied Statistics (AOAS)* (5×), *Biometrics* (4×), *Biostatistics*, *Electronic Journal of Statistics*, *Journal of the American Statistical Association (JASA)* (4×), *Journal of Computational and Graphical Statistics*, *Journal of Nonparametric Statistics*, *Journal of the Royal Statistical Society: Series A (JRSS-A)* (2×), *Research Synthesis Methods* (4×), *Statistical Science*, *Statistics in Medicine (SIM)* (4×)

Machine Learning (12×)

– *IEEE Transactions on Information Forensics and Security*, *Journal of Machine Learning Research (JMLR)*, *NeurIPS 2025* (5×), *ICLR 2026* (5×)

Public Health, Health Policy and Management, & Medicine (24×)

– *AIDS Care*, *BMC Medical Research Methodology*, *BMC Public Health*, *BMJ Open*, *BMJ Quality & Safety*, *Clinical Trials*, *Global Public Health*, *Health Services Research*, *International Journal of Public Health*, *Journal of the American Medical Association (JAMA)* (2×), *JAMA Network Open* (3×), *JAMA Oncology* (4×), *Management Science*, *Nature Communications* (2×), *Scientific Reports*, *Sexual Health*, *Sexually Transmitted Infections*, *Trials* (2×)

Conferences, Seminars & Workshops

Organizer

[3] *International Conference on Artificial Intelligence in Medicine, Salt Lake City, Utah.* (Scientific Program Committee, Jul 2024.) "AI for Reliable and Equitable Real-World Evidence Generation in Medicine."

[2] *Hangzhou International Conference on Frontiers of Data Science, Hangzhou, China* (Invited Session Organizer, Jul 2024.) "Statistical Learning Meets Causal Inference: Modern Theory and Methods."

[1] *International Conference on Health Policy Statistics, Scottsdale, AZ.* (Invited Session Organizer, Jan 2023). "Statistical Advances and Policy Implications in Hospital Quality Measurement."

Talks

2025

- CMStats, London, UK, Dec 2025
- Mass General Hospital, Clinical and Translational Epidemiology Unit, Boston, MA, Nov 2025
- UNC Causal Inference Research Group, Chapel Hill, NC, Oct 2025
- Northeastern Public Health & Health Sciences, Boston, MA, Sep 2025
- Harvard Health Care Policy, Boston, MA, Sep 2025
- Joint Statistical Meetings, Nashville, TN, Aug 2025
- IMS Frontiers in Statistical Machine Learning Workshop, Nashville, TN, Aug 2025
  - **IMS New Researcher Travel Award**
- ICML, Vancouver, Canada, Jul 2025
- Fred Hutch Cancer Center, Deep Learning Seminar Series, Seattle, WA, Jul 2025
- Online Causal Inference Seminar (OCIS), Discussant for Julie Josse, Virtual, Jun 2025
- ICSA Applied Statistics Symposium, Storrs, CT, Jun 2025
- Pusan National University Hospital (Talk 2), Pusan, South Korea, Jun 2025
- Pusan National University (Talk 1), Pusan, South Korea, Jun 2025
- Lifetime Data Science Conference, New York, NY, May 2025
- American Causal Inference Conference, Detroit, MI, May 2025
- Brandeis - Harvard SPIRE Center Methods Workshop, Cambridge, MA, May 2025
- UPenn Center for Causal Inference Seminar, Online, May 2025
- Harvard Data Science Initiative, Causal Inference Seminar, Discussant for Elias Bareinboim, Boston, MA, Apr 2025
- University of Texas San Antonio, Management Science and Statistics, Online, Apr 2025
- Northeastern University, Advanced Population Characterization, Boston, MA, Mar 2025

2024

- International Conference on Statistics and Data Science, Nice, France, Dec 2024
- UPenn Center for Causal Inference Seminar, Online, Nov 2024
- Forum on the Integration of Observational and Randomized Data, Baltimore, MD, Nov 2024
- Harvard TH Chan School of Public Health, Department of Biostatistics, Boston, MA, Oct 2024
- Harvard Medical School, Department of Health Care Policy, Boston, MA, Oct 2024
- New York University, Department of Biostatistics, New York, NY, Sep 2024
- Joint Statistical Meetings, Portland, OR, Aug 2024
- ICML, Vienna, Austria, Jul 2024
- WebENAR, Online, Jul 2024
- Hangzhou International Conference on Frontiers of Data Science, Hangzhou, China, Jul 2024
- American Causal Inference Conference, Seattle, WA, May 2024
- Northeastern University, Center for Signal Processing, Imaging, Reasoning, and Learning, Boston, MA, Mar 2024
- INRIA, Causal Inference and Missing Data Group, Virtual, Feb 2024

2023

- NeurIPS, New Orleans, LA, Dec 2023
- Peking University, National School of Development, Virtual, Dec 2023
- Cytel, Cambridge, MA, Dec 2023
- Forum on the Integration of Observational and Randomized Data, Washington, DC, Nov 2023
- INFORMS, Phoenix, AZ, Oct 2023
- ASA Boston Pharmaceutical Symposium, Boston, MA, Oct 2023
- Harvard University, IQSS, Applied Statistics Workshop, Cambridge, MA, Sep 2023
- RAND Center for Causal Inference Symposium, Virtual, Aug 2023
- Joint Statistical Meetings, Toronto, Canada, Aug 2023
  - **ASA Student Paper Award, Health Policy Statistics Section**
- IMS New Researchers Conference, Toronto, Canada, Aug 2023
- ENAR Spring Meeting, Nashville, TN, Mar 2023
- Northeastern University, Health Sciences Seminar, Boston, MA, Mar 2023
- Boston University, Biostatistics Seminar, Boston, MA, Mar 2023
- Harvard University, National Studies on Air Pollution and Health Group, Cambridge, MA, Feb 2023
- UC–Berkeley / UCSF, Computational Precision Health Seminar, Berkeley, CA, Feb 2023
- Vanderbilt University Medical Center, Biostatistics Seminar, Nashville, TN, Feb 2023
- Harvard Medical School, Pharmacoepidemiology Seminar, Boston, MA, Feb 2023
- University of Washington, Biostatistics Seminar, Seattle, WA, Feb 2023
- UPenn, Biostatistics, Epidemiology, and Informatics Seminar, Philadelphia, PA, Jan 2023
- University of Virginia, Data Science Seminar, Charlottesville, VA, Jan 2023
- University of Michigan–Ann Arbor, Biostatistics Seminar, Ann Arbor, MI, Jan 2023

2022

- CMStatistics, London, UK, Dec 2022
- North Carolina State University, Statistics Seminar, Raleigh, NC, Dec 2022
- University of Utah, Biostatistics Seminar, Virtual, Dec 2022
- University of Cambridge Judge Business School, Healthcare Operations Seminar, Virtual, Nov 2022
- University of Paris, Bioinformatics Seminar, Paris, France, Nov 2022
- Banff Workshop, Oaxaca, Mexico, Aug 2022
- Joint Statistical Meetings, Washington, DC, Aug 2022
- International Biometrics Conference, Riga, Latvia, Jul 2022
- WNAR Spring Meeting, Virtual, Jul 2022
  - **Best Oral Student Paper Presentation Award**
- Harvard Medical School, Design of Experimental and Observational Studies Seminar, Boston, MA, Jun 2022
- American Causal Inference Conference, Berkeley, CA, May 2022
  - **National Science Foundation New Researcher Award**
- ENAR Spring Meeting, Houston, TX, Mar 2022
  - **Institute of Mathematical Statistics Hannan Graduate Student Travel Award**

2021

- New England Statistical Symposium, Virtual, Oct 2021
  - **Munich Re / HSB Best Poster Award**
- ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop, Virtual, Sep 2021
  - **Best Poster Award**
- Johns Hopkins University, Causal Inference Working Group, Virtual, Sep 2021
- ENAR Spring Meeting, Virtual, Mar 2021
  - **John Van Ryzin Award**
- Harvard T.H. Chan School of Public Health, Poster Day, Virtual, Feb 2021
- Harvard-MIT Center for Regulatory Science, Doctoral Student Symposium, Virtual, Feb 2021

2020 and earlier

- University of Michigan–Ann Arbor, Statistics for Individualized Healthcare Lab, Virtual, Dec 2020
- ASTMH Annual Meeting, National Harbor, MD, Nov 2019
- INFORMS Healthcare, Cambridge, MA, Jul 2019
- WHO Social Innovation in Health Initiative, Blantyre, Malawi, Jun 2018
- LSHTM, Centre for Evaluation Seminar Series, London, UK, May 2018
- Cambridge Judge Business School, Healthcare Ops Seminar, Cambridge, UK, Mar 2018
- Tsinghua University, Schwarzman Scholars Symposium, Beijing, China, Jun 2017
- IUSTI – Asia-Pacific Conference, Okayama, Japan, Dec 2016
- UNC Project-Malawi, Lilongwe, Malawi, Mar 2016