Yixin Wang

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CV updated: December 9, 2025

Education

Ph.D. Statistics, Columbia University 2020
M.Phil. Statistics 2017
M.A. Statistics 2015
Advisor: David M. Blei

B.Sc. (First Class Honors) Mathematics and Computer Science, Hong Kong University of Science and Technology (HKUST) 2014

Employment

Assistant Professor, Department of Statistics, University of Michigan 2022–
Faculty Affiliate, Center for Computational Medicine and Bioinformatics (CCMB), 2025–

LSA Collegiate Fellow, Department of Statistics, University of Michigan 2021–2022

Postdoctoral Researcher, Department of Electrical Engineering and Computer Sciences, University of California Berkeley 2020–2021
Advisor: Michael I. Jordan

Honors and Awards

National Science Foundation CAREER Award 2025

AAAI New Faculty Highlights 2025

Two Sigma Faculty Research Award 2024

Honorable Mention, Savage Award (Theory and Methods), International Society for Bayesian Analysis (ISBA) 2023

Blackwell-Rosenbluth Award, Junior Section of the International Society for Bayesian Analysis (j-ISBA) 2021

Columbia University Dean's fellowship 2014-2020

HKUST Academic Achievement Medal	2014
Hong Kong Government Talent Development Scholarship	2014
Second Runner-up, Mr Armin and Mrs Lillian Kitchell Undergraduate Research Award	2014
Hong Kong Government Scholarship	2011-2014
Soong Ching Ling Foundation Scholarship	2010-2014
Epsilon Fund Award in Mathematics	2013
Gold Medal, International Genetically Engineered Machine (iGEM) Competition (with HKUST Team)	2012
Gold Medal and Best Presentation in Asia, International Genetically Engineered Machine (iGEM) Competition (with HKUST Team)	2011
HKUST School of Science Scholarship	2011

Paper Awards

ENAR Distinguished Student Paper Award, International Biometric Society, Eastern North American Region: "Causal Inference with Text-based Treatments and Outcomes"	2025
Alexey Chervonenkis Best Paper Award, Symposium on Conformal and Probabilistic Prediction with Applications (COPA): "Recommendation Systems with Distribution-Free Reliability Guarantees"	2023
Junior Researcher Award, International Chinese Statistical Association (ICSA) International Conference: "Desiderata for Representation Learning: A Causal Perspective"	2023
Honorable Mention, Thomas R. Ten Have Award, American Causal Inference Conference (ACIC): "Desiderata for Representation Learning: A Causal Perspective"	2022
Editor-Selected Discussion Paper, Journal of American Statistical Association (Theory and Methods) : "The Blessings of Multiple Causes"	2019
Student Paper Award, American Statistical Association (ASA) Section on Bayesian Statistical Science: "Frequentist Consistency of Variational Bayes"	2019

Student Paper Award, 2018
Eastern Mediterranean Region of the International Biometric Society (EMR-IBS) Conference:
"The Blessings of Multiple Causes"

Student Paper Award, 2018
American Statistical Association (ASA) Biometrics Section:
"Minimal Dispersion Approximately Balancing Weights: Asymptotic Properties and Practical Considerations"

Best Poster Award, 2018
New York Academy of Sciences (NYAS) Machine Learning Symposium:
"Frequentist Consistency of Variational Bayes"

Student Paper Award, 2018
NIPS Advances in Approximate Bayesian Inference (AABI) Workshop:
"Frequentist Consistency of Variational Bayes"

INFORMS Data Mining Best Paper Award, 2017
Institute for Operations Research and the Management Sciences (INFORMS):
"Frequentist Consistency of Variational Bayes"

Young Researcher Award, 2016
International Chinese Statistical Association (ICSA) International Conference:
"Robust Probabilistic Modeling with Bayesian Data Reweighting"

Publications[1]

Journal Articles

[J28] B. Zhao, **Y. Wang**, J.E. Huggins, and J. Kang. A Bayesian Reinforcement Learning Framework for Optimizing the BCI-utility of P300 Brain-Computer Interfaces. *Annals of Applied Statistics*, to appear.

[J27] K. Krauth†, **Y. Wang**, and M.I. Jordan. Breaking Feedback Loops in Recommender Systems with Causal Inference. *ACM Transactions on Recommender Systems*, 4, 1, 14, 2026.

[J26] L. Manduchi*†, K. Pandey*, R. Bamler, R. Cotterell, S. Daubener, S. Fellenz, A. Fischer, T. Gartner, M. Kirchler, M. Kloft, Y. Li, C. Lippert, G. de Melo, E. T. Nalisnick, B. Ommer, R. Ranganath, M. Rudolph, K. Ullrich, G. Van den Broeck, J. E Vogt, **Y. Wang**, F. Wenzel, F. Wood, S. Mandt, and V. Fortuin. On the Challenges and Opportunities in Generative AI. *Transactions on Machine Learning Research (TMLR)*, 2025.

[1] *: equal contribution, equal advising, or alphabetical order; †: student or postdoc authors at the time of writing.

[J25] K. Wang, H. Niu, **Y. Wang**, and D. Li. Deep Generative Models: Complexity, Dimensionality, and Approximation. *Journal of Machine Learning Research*, 26, 1-37, 2025.

[J24] E. Dong[†], A. Schein, **Y. Wang**, and N. Garg. Addressing Discretization-Induced Bias in Demographic Prediction. *PNAS Nexus*, 4(2), pgaf027, 2025.

[J23] P. Gradu[*†], T. Zrnic[*†], **Y. Wang**, and M.I. Jordan. Valid Inference after Causal Discovery. *Journal of the American Statistical Association*, 120(550), 1127-1138, 2025.

[J22] R. Dew, N. Padilla, L.E. Luo, S. Oblander, A. Ansari, K. Boughanmi, M. Braun, F.M. Feinberg, J. Liu, T. Otter, L. Tian, **Y. Wang**, and M. Yin. Probabilistic Machine Learning: New Frontiers for Modeling Consumers and their Choices. *International Journal of Research in Marketing*, 42, 2025.

[J21] **Y. Wang**[*], A. Degleris[*], A.H. Williams, and S.W. Linderman. Spatiotemporal Clustering with Neyman-Scott Processes via Connections to Bayesian Nonparametric Mixture Models. *Journal of American Statistical Association*, 119(547), 2382–2395, 2024.

[J20] L. Liao[*†], Z. Fu[*†], Z. Yang, **Y. Wang**, D. Ma, M. Kolar, Z. Wang. Instrumental Variable Value Iteration for Causal Offline Reinforcement Learning. *Journal of Machine Learning Research*, 25(303):1-56, 2024.

[J19] **Y. Wang** and M.I. Jordan. Desiderata for Representation Learning: A Causal Perspective. *Journal of Machine Learning Research*, 25(275):1-65, 2024. **ACIC Tom Ten Have Award Honorable Mention; ICSA International Conference Junior Researcher Award**

[J18] M. Yin[†], **Y. Wang**, and D.M. Blei. Optimization-based Causal Estimation from Heterogeneous Environments. *Journal of Machine Learning Research*, 25(168):1-44, 2024.

[J17] L. Zhang[†], L.R. Richter, **Y. Wang**, A. Ostropolets, N. Elhadad, D.M. Blei, G. Hripcsak. Causal Fairness Assessment of Treatment Allocation with Electronic Health Records. *Journal of Biomedical Informatics*, 2024, 104656.

[J16] M. Yin[†], C. Shi[†], **Y. Wang**, and D.M. Blei. Conformal Sensitivity Analysis for Individual Treatment Effects. *Journal of American Statistical Association*, 119:545, 122-135, 2024.

[J15] H. Nisonoff[†], **Y. Wang**, and J. Listgarten. Coherent Blending of Biophysics-Based Knowledge with Bayesian Neural Networks for Robust Protein Property Prediction. *ACS Synthetic Biology*, 12, 11, 3242–3251, 2023. **Featured as ACS Editors' Choice (2023); Selected for the special collection in honor of Darwin Day (2024).**

[J14] T. Makino[†], **Y. Wang**, K.J. Geras, K. Cho. Detecting Incidental Correlation in Multimodal Learning via Latent Variable Modeling. *Transactions on Machine Learning Research (TMLR)*, 2023.

[J13] M. Jagadeesan[*†], A. Wei[*†], **Y. Wang**, M.I. Jordan, and J. Steinhardt. Learning Equilibria in Matching Markets from Bandit Feedback. In *Journal of the ACM*, 70, 3, 46,

2023. (Short version appeared in *Neural Information Processing Systems (NeurIPS)*, 2021. **Spotlight Presentation (Top 3% of All Submissions)**)

[J12] **Y. Wang** and J.R. Zubizarreta. Large Sample Properties of Matching for Balance. *Statistica Sinica*, 33, 3, 2023.

[J11] C.J. Gruich[†], V. Madhavan, **Y. Wang**, and B.R. Goldsmith. Clarifying Trust of Materials Property Predictions Using Neural Networks with Distribution-Specific Uncertainty Quantification. In *Machine Learning: Science and Technology*, 4, 2, 2023.

[J10] **Y. Wang**, D. Sridhar, and D.M. Blei. Adjusting Machine Learning Decisions for Equal Opportunity and Counterfactual Fairness. *Transactions on Machine Learning Research (TMLR)*, 2023.

[J9] W. Guo[*†], S. Wang[*†], P. Ding, **Y. Wang**, and M.I. Jordan. Multi-source Causal Inference Using Control Variates. *Transactions on Machine Learning Research (TMLR)*, 2022.

[J8] G.E. Moran, D. Sridhar, **Y. Wang**, and D.M. Blei. Identifiable Variational Autoencoders via Sparse Decoding. *Transactions on Machine Learning Research (TMLR)*, 2022.

[J7] L. Zhang[†], **Y. Wang**, M. Schuemie, D.M. Blei, and G. Hripcsak. Adjusting for Indirectly Measured Confounding Using Large-scale Propensity Score. *Journal of Biomedical Informatics*, 2022.

[J6] W. Tansey, **Y. Wang**, R. Rabadan, and D.M. Blei. Double Empirical Bayes Testing. *International Statistical Review*, 88:S91-S113, 2020.

[J5] **Y. Wang** and J.R. Zubizarreta. Minimal Dispersion Approximately Balancing Weights: Asymptotic Properties and Practical Considerations. *Biometrika*, 107:1, 93-105, 2020. **ASA Biometrics Section Student Paper Award**

[J4] **Y. Wang** and D.M. Blei. The Blessings of Multiple Causes. *Journal of American Statistical Association* (with discussion), 114:528, 1574-1596, 2019. **Editor-Selected JSM Discussion Paper; EMR-IBS Student Paper Award**

[J3] **Y. Wang**, A.C. Miller, and D.M. Blei. Comment: Variational Autoencoders as Empirical Bayes, *Statistical Science*, 34(2), 229-233, 2019

[J2] **Y. Wang** and D.M. Blei. Frequentist Consistency of Variational Bayes. *Journal of American Statistical Association*, 114:527, 1147-1161, 2019. **INFORMS Data Mining Best Paper Award; ASA Section on Bayesian Statistical Science Student Paper Award**

[J1] **Y. Wang** and M.K.P. So. A Bayesian Hierarchical Model for Spatial Extremes with Multiple Durations. *Computational Statistics & Data Analysis*, 95, 39-56, 2016.

Peer-Reviewed Conference Articles

[C35] Y. Zhao[†], **Y. Wang**, and M. Yin. Permutative Preference Alignment from Listwise

Ranking of Human Judgments. In *Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2025.

[C34] A. Nejatbakhsh and **Y. Wang**. Identifying Neural Dynamics Using Interventional State Space Models. In *International Conference on Machine Learning (ICML)*, 2025.

[C33] C. Liu, **Y. Wang**, M. Lee. Finding Information Quality: Counterfactual Voting Adjustment for Quality Assessment and Fairer Voting in Online Platforms with Helpfulness Evaluation. In *International Conference on Machine Learning (ICML)*, 2025.

[C32] Z. Xu[†], Z. Ni[†], **Y. Wang**[*], and W. Hu[*]. Let Me Grok for You: Accelerating Grokking via Embedding Transfer from a Weaker Model. In *International Conference on Learning Representations (ICLR)*, 2025.

[C31] P. De Bartolomeis[†], J. Kostin[†], J. Abad[†], **Y. Wang**, and F. Yang. Doubly Robust Identification of Treatment Effects from Multiple Environments. In *International Conference on Learning Representations (ICLR)*, 2025.

[C30] S. Salazar[†], M. Kucer, **Y. Wang**, E. Casleton, and D.M. Blei. Posterior Mean Matching: Generative Modeling through Online Bayesian Inference. In *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2025.

[C29] A. Sanyal[†], Y. Hu[†], Y. Yu[†], Y.A. Ma, **Y. Wang**, and B. Schölkopf. Accuracy on the Wrong Line: On the Pitfalls of Noisy Data for Out-of-distribution Generalisation. In *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2025. **Oral presentation at ICML 2024 Workshop on the Next Generation of AI Safety.**

[C28] K.C. Wibisono[†] and **Y. Wang**. From Unstructured Data to In-Context Learning: Exploring What Tasks Can Be Learned and When. In *Neural Information Processing Systems (NeurIPS)*, 2024.

[C27] H. Liu[†], Z.-Y. Dou[†], **Y. Wang**, N. Peng, and Y. Yue. Uncertainty Calibration for Tool-Using Language Agents. In *Findings of the Association for Computational Linguistics: EMNLP (EMNLP Findings)*, 2024.

[C26] N. Joshi[†], A. Saparov[†], **Y. Wang**, and H. He. LLMs are Prone to Fallacies in Causal Inference. In *Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2024.

[C25] C. Balsells-Rodas[†], **Y. Wang**, and Y. Li. On the Identifiability of Switching Dynamical Systems. In *International Conference on Machine Learning (ICML)*, 2024.

[C24] B. Zhang[†], **Y. Wang**, and P. Dhillon. Causal Inference for Human-Language Model Collaboration. In *Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*, 2024.

[C23] K. Ahuja[*], A. Mansouri[*], **Y. Wang**. Multi-Domain Causal Representation Learning via Weak Distributional Invariances. In *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2024.

[C22] C. Kausik[*†], K. Tan[*†], Y. Lu[*†], M. Makar, **Y. Wang**, and A. Tewari. Offline Policy

Evaluation and Optimization under Confounding. In *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2024.

[C21] C. De Bacco[†], **Y. Wang**, and D.M. Blei. A Causality-inspired Plus-minus Model for Player Evaluation in Team Sports. In *Conference on Causal Learning and Reasoning (CLeaR)*, 2024.

[C20] H. Cai[†], **Y. Wang**, M.I. Jordan, and R. Song. On Learning Necessary and Sufficient Causal Graphs. In *Neural Information Processing Systems (NeurIPS)*, 2023. **Spotlight Presentation (Top 3% of All Submissions)**

[C19] K.C. Wibisono[†] and **Y. Wang**. Bidirectional Attention as a Mixture of Continuous Word Experts. In *Uncertainty in Artificial Intelligence (UAI)*, 2023.

[C18] A.N. Angelopoulos[*†], K. Krauth[*†], S. Bates, **Y. Wang**, and M.I. Jordan. Recommendation Systems with Distribution-Free Reliability Guarantees. *Symposium on Conformal and Probabilistic Prediction with Applications (COPA)*, 2023. **Alexey Chervonenkis Best Paper Award**

[C17] B. Zhu[†], S. Bates, Z. Yang, **Y. Wang**, J. Jiao, and M.I. Jordan. The Sample Complexity of Online Contract Design. In *ACM Conference on Economics and Computation (EC)*, 2023.

[C16] K. Ahuja[†], D. Mahajan, **Y. Wang**, and Y. Bengio. Interventional Causal Representation Learning. In *International Conference on Machine Learning (ICML)*, 2023. **Oral Presentation (Top 3% of All Submissions)**

[C15] H. Zhang[†], S. Lu[†], **Y. Wang**, M. Curmei. Delayed and Indirect Impacts of Link Recommendations. In *ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)*, 2023.

[C14] X. Lu[†], W. Ai, **Y. Wang**, and Q. Mei. Team Resilience under Shock: An Empirical Analysis of GitHub Repositories during Early COVID-19 Pandemic. In *International AAAI Conference on Web and Social Media (ICWSM)*, 2023.

[C13] M.I. Jordan[*], **Y. Wang**[*], and A. Zhou[*]. Empirical Gateaux Derivatives for Causal Inference. In *Neural Information Processing Systems (NeurIPS)*, 2022. **Oral Presentation (Top 3% of All Submissions)**

[C12] C. Mendler-Dünner[†], F. Ding, and **Y. Wang**. Anticipating Performativity by Predicting from Predictions. In *Neural Information Processing Systems (NeurIPS)*, 2022.

[C11] W. Guo[†], M. Yin, **Y. Wang**, M.I. Jordan. Partial Identification with Noisy Covariates: A Robust Optimization Approach. In *Conference on Causal Learning and Reasoning (CLeaR)*, 2022.

[C10] **Y. Wang**, D.M. Blei, and J.P. Cunningham. Posterior Collapse and Latent Variable Non-identifiability. In *Neural Information Processing Systems (NeurIPS)*, 2021.

[C9] **Y. Wang** and D.M. Blei. A Proxy Variable View of Shared Confounding. In *International Conference on Machine Learning (ICML)*, 2021.

[C8] A. Williams, A. Degleris, **Y. Wang**, and S. Linderman. Point Process Models for Sequence Detection in High-dimensional Neural Spike Trains. In *Neural Information Processing Systems (NeurIPS)*, 2020. **Oral Presentation (Top 1.1% of All Submissions)**

[C7] **Y. Wang**, D. Liang, L. Charlin, and D.M. Blei. Causal Inference for Recommender Systems. In *ACM Conference on Recommender Systems (RecSys)*, 2020.

[C6] **Y. Wang** and D.M. Blei. Variational Bayes under Model Misspecification. In *Neural Information Processing Systems (NeurIPS)*, 2019.

[C5] V. Veitch, **Y. Wang**, and D.M. Blei. Using Embeddings to Correct for Unobserved Confounding in Networks. In *Neural Information Processing Systems (NeurIPS)*, 2019.

[C4] L. Zhang, **Y. Wang**, A. Ostropolets, J.J. Mulgrave, D.M. Blei, and G. Hripcsak. The Medical Deconfounder: Assessing Treatment Effect with Electronic Health Records. In *Machine Learning for Health Care (MLHC)*, 2019.

[C3] W. Tansey, **Y. Wang**, D.M. Blei, and R. Rabadan. Black Box FDR. In *International Conference on Machine Learning (ICML)*, 2018.

[C2] A. Kucukelbir, **Y. Wang**, and D.M. Blei. Evaluating Bayesian Models with Posterior Dispersion Indices. In *International Conference on Machine Learning (ICML)*, 2017.

[C1] **Y. Wang**, A. Kucukelbir, and D.M. Blei. Robust Probabilistic Modeling with Bayesian Data Reweighting. In *International Conference on Machine Learning (ICML)*, 2017. **ICSA International Conference Young Researcher Award**

Preprints

[P13] Z. Xu, J. Liu, **Y. Wang**, Y. Gu. Latency-Response Theory Model: Evaluating Large Language Models via Response Accuracy and Chain-of-Thought Length. *arXiv:2512.07019*.

[P12] L. Xiang[†], **Y. Wang**, H. Cai. Policy Optimization and Statistical Inference for Online Contextual Matrix Games. Under review at *Journal of the American Statistical Association*.

[P11] C. Balsells-Rodas[†], T. Matsui, P.A.M. Mediano, **Y. Wang**, and Y. Li. On the Identifiability of Regime-Switching Models with Multi-Lag Dependencies. Under review at *Journal of Machine Learning Research*.

[P10] L. Wu, M. Yin, **Y. Wang**, J.P. Cunningham, D.M. Blei. Bayesian Invariance Modeling of Multi-Environment Data. *arXiv:2506.22675*.

[P9] K.Q.H. Vo, S.L. Chau, M. Kato, **Y. Wang**, and K. Muandet. Strategic Learning with Local Explanations as Feedback. *arXiv:2502.04058*.

[P8] B. Zhang, **Y. Wang**, and P.S. Dhillon. Policy Learning with a Natural Language Action Space: A Causal Approach. *arXiv:2502.17538*.

[P7] K.C. Wibisono[†] and **Y. Wang**. Exponential Family Attention. *arXiv:2501.16790*.

[P6] G. Loaiza-Ganem, V. Villecroze, and **Y. Wang**. Deep Ensembles Secretly Perform Empirical Bayes. *arXiv:2501.17917*.

[P5] B. Wu[*†], E.N. Weinstein[*†], S. Salehi, **Y. Wang**, and D.M. Blei. Adaptive Nonparametric Perturbations of Parametric Bayesian Models. *arXiv:2412.10683*.

[P4] S.J. Yang[†], **Y. Wang**, and K.Z. Lin. LCL: Contrastive Learning for Lineage Barcoded scRNA-seq Data. *bioRxiv:2024.10.28.620670*.

[P3] P. Chatha[†], **Y. Wang**, Z. Wu, and J. Regier. Dynamic Survival Transformers for Causal Inference with Electronic Health Records. *arXiv:2210.15417*.

[P2] K. Bhatia[*†], N.L. Kuang[*†], Y.A. Ma[*], and **Y. Wang**[*]. Statistical and Computational Trade-offs in Variational Inference: A Case Study in Inferential Model Selection. *arXiv:2207.11208. Under revision at the Journal of American Statistical Association.*

[P1] **Y. Wang** and D.M. Blei. Towards Clarifying the Theory of the Deconfounder. *arXiv:2003.04948*.

Grants

[G14] *Autonomous Curriculum Generation for Easy-to-Hard Generalization in Foundation Models* (Co-PI).
University of Michigan–OpenAI Research Grants. $25K (Total: $50K). 2025-2026.
PI: Wei Hu (UMich, Computer Science & Engineering).

[G13] *ACED: Tail-aware Generative Modeling for Inverse Discovery of Molecules* (PI).
National Science Foundation. $250K (Total: $500K). 2025-2027.
Co-PI: Bryan Goldsmith (UMich, Chemical Engineering); Weichi Yao (UMich, Statistics).

[G12] *CAREER: Bringing Structure to the Unstructured: Robust Causal and Statistical Modeling of High-dimensional Unstructured Data* (PI).
National Science Foundation. $600K (Total: $600K). 2025-2030.

[G11] *Two Sigma Faculty Research Award* (PI).
Two Sigma Investments, LP. $75K (Total: $75K).

[G10] *ATD: Hawkes Process-Based Causal Relationship Discovery for Complex Threat Detection and Forecasting* (Co-PI).
National Science Foundation. $100K (Total: $200K). 2024-2027.
PI: Biwei Huang (UCSD, Halicioglu Data Science Institute).

[G9] *Causal Genomics: Inferring Mechanisms from Genomic Data* (Co-I).
UMich OVPR's Bold Challenges Accelerate Program. Total: $100K. 2024-2025.
PI: Joshua Welch (UMich, Computational Medicine and Bioinformatics).

[G8] *Extrapolating with Generative Models for Design of Organic Molecules as Energy Carriers* (Co-PI).
Michigan Institute for Data Science: Propelling Original Data Science (PODS) Grant.

$22K (Total: $70K). 2024-2025.
PI: Bryan Goldsmith (UMich, Chemical Engineering); David Kawbi (UMich, Mechanical Engineering).

[G7] *DMS: Toward Automated Uncertainty Quantification in Causal Inference* (PI).
National Science Foundation. $220K (Total: $220K). 2023-2026.

[G6] *Towards Practical Causal Inference for Recommender Systems: Combinatorial Interventions, Complex Evaluations, and Robust Generalization* (PI).
Office of Naval Research. $420K (Total: $420K). 2023-2026.

[G5] *Conferences and Workshops in the Mathematical Sciences (DMS: Statistics): Midwest Machine Learning Symposium* (Co-PI).
National Science Foundation. Total: $12K. 2023.
PI: Mladen Kolar (USC, Data Sciences and Operations); Mesrob Ohannessian (UIC, ECE).

[G4] *EAGER: ADAPT: Hypotheses Generation in Heterogeneous Catalysis using Causal Inference and Machine Learning* (Co-PI).
National Science Foundation. $50K (Total: $300K). 2022-2024.
PI: Bryan Goldsmith (UMich, Chemical Engineering); Suljo Linc (UMich, Chemical Engineering).

[G3] *Evaluating Delayed and Indirect Impacts of Recommender Systems for Trustworthy AI* (PI).
2023 UMich LSA Summer Research Program Award. $6K (Total: $6K). 2023.

[G2] *Counterfactual Fairness in Natural Language Processing* (PI).
2022 UMich LSA Summer Research Program Award. $3K (Todal: $3K). 2022.

[G1] *Bayesian Inference for Latent Hawkes Processes* (PI).
Microsoft Azure Research Award. $20K Azure credit. 2017-2018.

Teaching

STATS/DATASCI 315: Statistics and Artificial Intelligence, University of Michigan
Instructor, Fall 2022, Fall 2023, Fall 2024

STATS/DATASCI 551: Bayesian Modeling and Computation, University of Michigan
Instructor, Fall 2024, Fall 2025

STATS/DATASCI 451: Bayesian Data Analysis, University of Michigan
Instructor, Fall 2022, Fall 2023

"Causal Reasoning & Machine Learning" Tutorial, University of Michigan
Eric and Wendy Schmidt AI in Science Postdoc Program Bootcamp
Instructor, Winter 2023, Fall 2023

"Data Externalities" Tutorial
ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)
Instructor (with Rediet Abebe, Yuan Cui, Mihaela Curmei, and Andreas Haupt), 2021

Professional Activities

Program Committee

Area chair, International Conference on Machine Learning (ICML), 2020, 2024, 2025

Area chair, Artificial Intelligence and Statistics (AISTATS), 2024, 2025

Area chair, International Conference on Learning Representations (ICLR), 2021, 2023, 2024, 2025

Area chair, Neural Information Processing Systems (NeurIPS), 2023, 2024, 2025

Workshop proposal reviewer, Neural Information Processing (NeurIPS) Systems, 2021, 2023, 2024, 2025

Area chair, ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO), 2021

Area chair, Women in Machine Learning Workshop (WiML), 2018-2021

Paper Competition Committee

Judge, ASA Business and Economic Statistics Section Student Paper Award competition 2026

ISBA Lindley Prize committee 2026

Referee, ASA Section on Bayesian Statistical Science Paper Competition 2023, 2025, 2026

Savage Award (Applied Methodology) Committee 2025

Scientific Committee for the Blackwell-Rosenbluth Award by j-ISBA 2022, 2023

Referee, ASA Section on Bayesian Statistical Science Paper Competition 2018

Referee, ASA Survey Research Methods Section Poster Competition 2018

Referee, ASA Mental Health Section Paper Competition 2018

Journal Reviewing

Annals of Applied Statistics (AoAS)

Annals of Statistics (AoS)

Journal of American Statistical Association (JASA)

Journal of the Royal Statistical Society (JRSS)

Journal of Machine Learning Research (JMLR)

Transactions of Machine Learning Research (TMLR)

Bernoulli

Biometrics

Biometrika

Biostatistics

Canadian Journal of Statistics

Entropy

International Journal of Data Science and Analytics (JDSA)

Management Science

Operations Research

Stat

Statistics and Computing

IEEE Transactions on Information Theory

IEEE Transactions on Knowledge and Data Engineering (TKDE)

IEEE Transactions on Signal Processing (TSP)

ACM Transactions on Intelligent Systems and Technology (TIST)

Foundations and Trends in Machine Learning

Conference Reviewing

Pacific Symposium on Biocomputing	2020
Workshop on Mechanism Design for Social Good	2020
Association for the Advancement of Artificial Intelligence Conference (AAAI)	2018
Artificial Intelligence and Statistics (AISTATS)	2017-2020, 2022
Neural Information Processing Systems (NeurIPS)	2016-2020, 2022
International Conference on Learning Representations (ICLR)	2017-2020
Uncertainty in Artificial Intelligence (UAI)	2021
International Conference on Machine Learning (ICML)	2017-2019
Women in Machine Learning Workshop (WiML)	2017

Advances in Approximate Bayesian Inference Workshop (AABI) 2017

Grant Reviewing

External Reviewer, Natural Sciences and Engineering Research Council of Canada (NSERC) 2023, 2025

Panel Reviewer, NSF CISE for Robust Intelligence 2022

Reviewer, NSF Methodology, Measurement, and Statistics Program 2021, 2024

Reviewer, AI Grant 2017

Workshop Organizing

Causality, Counterfactuals & Sequential Decision-Making (CONSEQUENCES) (RecSys 2025)

Causality, Counterfactuals & Sequential Decision-Making (CONSEQUENCES) (RecSys 2024)

Causality, Counterfactuals & Sequential Decision-Making (CONSEQUENCES) (RecSys 2023)

Midwest Machine Learning Symposium 2023

Learning Meaningful Representations of Life (NeurIPS 2022)

Causal Representation Learning (UAI 2022)

Learning Meaningful Representations of Life (NeurIPS 2021)

Bayesian Causal Inference for Real World Interactive Systems (KDD 2021)

Learning Meaningful Representations of Life (NeurIPS 2020)

Conference / Seminar Activities

Panelist, Breaking into Computer Science Conferences: Tips for (Bio)Statisticians (UMich Biostatistics) 2025

Roundtable mentor, Women in Machine Learning (WiML) mentorship program at NeurIPS 2020, 2022

Panel moderator, Workshop on Modern Statistical and ML Methods for Big Data 2022

Mentor, Machine Learning for Health (ML4H) Workshop at NeurIPS 2020

ICML Newcomer Volunteer Mentor 2020

Organizer, Student meetings with statistics visitors, Columbia University 2017-2020

Organizer, Minghui Yu Memorial Conference, Columbia University 2015, 2016

University of Michigan Department of Statistics Service

Undergraduate Advising (2024, 2025)

Master's Advising (2024, 2025)

Faculty Search Committee (2024)

Statistics Seminar Committee (2022, 2024), Chair (Fall 2024)

Master's Admissions Committee (2024)

Statistics Graduate Curriculum Committee (2023, 2024)

PhD Admissions Committee (2023)

Statistics Computing Committee (2023, 2024)

Statistics Undergraduate Curriculum Committee (2022, 2023)

First year PhD mentorship: Yidan Xu (2021), Judy Wu (2023), An Pho (2024)

Advising and Mentorship

Current Ph.D. Students

Filippo Michelis (Expected 2029)

Paolo Borello (Expected 2028)

– *UMich Rackham Outstanding Graduate Student Instructor Award, 2025*

Marc Brooks (Expected 2027; Co-advised with Ambuj Tewari)

Zhiwei Xu (Expected 2027; Co-advised with Wei Hu)

Yidan Xu (Expected 2026; Co-advised with Long Nguyen)

Kevin Christian Wibisono (Expected 2026)

– *UMich Rackham International Student Fellowship, 2023*

– *ENAR Distinguished Student Paper Award, 2025*

Current Postdoctoral Fellows

Shuozhi Zuo (2025-)

Weichi Yao (2023-; Co-advised with Bryan Goldsmith)

– *Eric and Wendy Schmidt AI in Science Postdoctoral Fellowship, 2023*

Master's Independent Research

Juliana Tu (UMich)	Winter 2026
Fangqing Yuan (UMich)	Winter 2024
Japheth Kasomo (African Institute for Mathematical Sciences (AIMS))	Fall 2021

Undergraduate Independent Research

Qian Chen (UMich)	01/2025–04/2025
Yufan Zhang (UMich)	01/2025–04/2025
Fang Yu (UMich; Co-advised with Yiqiao Zhong (UWisconsin))	01/2025–08/2025
Zifei Bai (UMich)	01/2025–04/2025
Kevin Yankai Zhang (Columbia)	05/2024–
Yang Zhao (Tsinghua; Co-advised with Mingzhang Yin (UFlorida))	05/2024–09/2025
Junran Jia (UMich)	01/2024–04/2025
Peihao Li (UMich)	01/2024–04/2024
Terry Shi (UMich)	01/2024–04/2024
Yue Yu (UMich)	01/2022–04/2022

Undergraduate Committees

Zhiyu (Ted) Yuan (UMich, Information) 2022
Honors Thesis Defense; Advisor: Paramveer Dhillon

PhD Committees

Zheyu Zhang (UMich, CSE) 2026
Thesis Proposal Exam; Advisor: Jie Liu

Jitao Wang (UMich, Biostatistics) 2025
Dissertation Defense & Preliminary Exam; Advisor: Zhenke Wu

Joseph Pennacchio (UMich, Statistics) 2025
Preliminary Exam; Advisor: Ambuj Tewari

Prayag Chatha (UMich, Statistics) 2025
Dissertation Defense & Preliminary Exam; Advisor: Jeffrey Regier

Soham Das (UMich, Statistics) 2025
Preliminary Exam; Advisor: Yang Chen

Gabriel Alfonso Patron Herrera (UMich, Statistics) 2025
Preliminary Exam; Advisor: Jeffrey Regier

Weizhou Qian (UMich, Computational Medicine and Bioinformatics) 2025
Thesis Proposal Exam; Advisor: Joshua Welch

Yingcong Li (UMich, Electrical Engineering and Computer Science) 2025
Thesis Proposal Exam; Advisor: Samet Oymak

Dean Sweeney (UMich, Chemical Engineering) 2025
Thesis Proposal Exam; Advisor: Bryan Goldsmith

Taro Makino (NYU, Data Science) 2025
Dissertation Defense; Advisor: Kyunghyun Cho, Krzysztof Geras

Bangyao Zhao (UMich, Biostatistics) 2025
Dissertation Defense & Preliminary Exam; Advisor: Jian Kang

Chang Liu (University of Illinois Chicago, Information and Decision Sciences) 2025
Dissertation Defense; Advisor: Moontae Lee

Yuxuan Song (UMich, Computational Medicine and Bioinformatics) 2024
Thesis Proposal Exam; Advisor: Joshua Welch, Matthew O'Meara

Mengqi Lin (UMich, Statistics) 2024
Preliminary Exam; Advisors: Colin Fogarty, Gongjun Xu

Seamus Somerstep (UMich, Statistics) 2024
Preliminary Exam; Advisor: Yuekai Sun

Mihaela Curmei (UC Berkeley, EECS) 2024
Dissertation Defense & Thesis Proposal Exam; Advisor: Ben Recht

Chenggong Jiang (UMich, Chemical Engineering) 2024
Thesis Proposal Exam; Advisor: Bryan Goldsmith; Suljo Linic

Xingjian Zhang (UMich, Information) 2024
Preliminary Exam; Advisor: Qiaozhu Mei

Bohan Zhang (UMich, Information) 2024
Field preliminary Exam & Preliminary Exam; Advisor: Paramveer Dhillon

Ziping Xu (UMich, Statistics) 2023
Dissertation Defense; Advisor: Ambuj Tewari

Linying Zhang (Columbia, Biomedical Informatics) 2023
Dissertation Defense; Advisor: George Hripsack

Cameron Gruich (UMich, Chemical Engineering) 2023
Thesis Proposal Exam; Advisor: Bryan Goldsmith

Seokhyun Chung (UMich, Industrial and Operations Engineering) 2023
Dissertation Defense; Advisor: Raed Al Kontar

Invited Talks

2025

[T144] International Seminar on Monte Carlo Methods – online

[T143] INFORMS Annual Meeting – atlanta, ga

[T142] Michigan Annual AI & Health Symposium – ann arbor, mi

[T141] International Conference on Econometrics and Statistics (EcoSta) – online

[T140] Amazon Science Seminar – online

[T139] CISPA Helmholtz Center for Information Security Rational Intelligence Seminar – online

[T138] ISBA EAC Conference – online

[T137] INFORMS Applied Probability Conference – atlanta, ga

[T136] American Causal Inference Conference – detroit, mi

[T135] Keynote Talk, ICLR Learning Meaningful Representations of Life Workshop – singapore

[T134] UArizona Theoretical Astrophysics Program (TAP) Computation & Data Initiative Lectureship – tucson, arizona

[T133] BIRS Workshop on Efficient Approximate Bayesian Inference – banff, alberta

[T132] University of Calgary Statistics Seminar – calgary, alberta

[T131] Harvard & Smithsonian Astro-statistics Seminar – online

[T130] University of British Columbia CAIDA Seminar – vancouver, bc

[T129] AAAI New Faculty Highlights – philadelphia, pa

[T128] University of Michigan Statistics Seminar – ann arbor, mi

2024

[T127] CMStatistics Conference – london, uk

[T126] Workshop on "Statistical Theory of Deep Neural Network Models" – college park, maryland

[T125] UMass Amherst Machine Learning and Friends Lunch Seminar – online

[T124] Joint Statistical Meetings – portland, oregon

[T123] AI Keynote Talk, LMU Munich – online

[T122] Pacific Causal Inference Conference – shanghai, china

[T121] ISBA East Asian Chapter Conference – hong kong

[T120] The Mathematics of Machine Learning Workshop – zurich, switzerland

[T119] American Causal Inference Conference – seattle, wa

[T118] Cornell University Statistics Seminar – ithaca, ny

[T117] University of Maryland Statistics Seminar – college park, md

[T116] Columbia Statistics Student Seminar – new york, ny

[T115] Michigan Student Symposium for Interdisciplinary Statistical Sciences – ann arbor, mi

[T114] Michigan State University Statistics Seminar – east lansing, mi

[T113] Iowa State University Statistics Seminar – ames, ia

2023

[T112] CMStatistics Conference – berlin, de

[T111] Interactive Causal Learning Conference – boca raton, fl

[T110] Causality, Abstraction, Representation, and Extrapolation (CARE) Seminar Series – online

[T109] Triennial Invitational Choice Symposium – Fontainebleau, France

[T108] Joint Statistical Meetings – toronto, ca

[T107] International Conference on Econometrics and Statistics (EcoSta) – tokyo, japan

[T106] Two Sigma PhD Symposium Distinguished Speaker Series – new york, ny

[T105] ICSA Applied Statistics Symposium – ann arbor, mi

[T104] SIAM Conference on Optimization (OP23) Applications of Optimization for Causal Structure Learning – seattle, wa

[T103] UC San Diego Halicioglu Data Science Institute Colloquia Lecture – san diego, ca

[T102] Cosmic Connections: A ML X Astrophysics Symposium at Simons Foundation – new york, ny

[T101] Invited Discussant at the Online Causal Inference Seminar – online

[T100] Max Planck Institute Empirical Inference Seminar – Tuebingen, Germany

[T99] ETH Zurich Young Data Science Researcher Seminar – online

[T98] Boston University Statistics and Probability Seminar – Boston, MA

[T97] Keynote Talk, Dagstuhl Seminar on Challenges and Perspectives in Deep Generative Modeling – Wadern, Germany

[T96] Causality Discussion Group – online

2022

[T95] Cornell Tech Seminar on People, Data, and Systems – new york, ny

[T94] Duke Statistics Seminar – durham, nc

[T93] Netflix Research Seminar – online

[T92] JSM Invited Session on Applications of Text Analysis – washington, d.c.

[T91] Columbia Data Science Institute – new york, ny

[T90] Keynote Talk, Women in Machine Learning Un-Workshop at ICML 2022 – online

[T89] CVPR workshop on "Explainable AI for Computer Vision" – online

[T88] Imperial College London Computing Seminar – online

[T87] UCSD AI Seminar – online

[T86] Amazon Core AI Science Workshop – online

[T85] Laplace's Causal Demon Seminar – online

[T84] University of Michigan Statistics Student Seminar – ann arbor, mi

[T83] One World ABC Seminar – online

[T82] 4th Symposium on Advances in Approximate Bayesian Inference (AABI) – online

[T81] Vector Institute Seminar – online

2021

[T80] Trustworthy ML Reading Group – online

[T79] NeurIPS 2021 "Your model is wrong: Robustness & misspecification in probabilistic models" Workshop – online

[T78] Causal Data Science Meeting – online

[T77] Junior Bayes Beyond the Borders (JB^3) Seminar – online

[T76] Cambridge Machine Learning Group Seminar – online

[T75] BAIR/CPAR/BDD Seminar – berkeley, ca

[T74] Microsoft Research Summit – online

[T73] Rutgers University ECE Colloquium – online

[T72] University of Michigan Statistics Student Seminar – ann arbor, mi

[T71] Laplace's Demon Seminar – online

[T70] UC Berkeley RISE Summer Retreat – online

[T69] Semantic Information MURI Seminar– online

[T68] UC Berkeley Causal Inference Group – online

[T67] UC Berkeley Biostatistics Seminar – online

[T66] UC Berkeley Science ML Group – online

2020

[T65] ByteDance – online

[T64] Harvard Medical School Systems Biology Journal Club – online

[T63] Pennsylvania State University Statistical Learning and Data Mining Lab – online

[T62] Columbia University Econometrics Workshop – online

[T61] ETH-Zurich Computer Science Seminar – online

[T60] Stanford University Computer Science Seminar – palo alto, ca

[T59] University College London Gatsby Unit Machine Learning Seminar – london, uk

[T58] University of Wisconsin Madison Statistics Seminar – madison, wi

[T57] Yale University Statistics Seminar – new haven, ct

[T56] Stanford University Statistics Seminar – palo alto, ca

[T55] UCLA Statistics Seminar – los angeles, ca

[T54] Caltech Computational and Mathematical Sciences Seminar – los angeles, ca

[T53] Toyota Institute of Technology in Chicago Machine Learning Seminar – chicago, il

[T52] University of Toronto Statistics Seminar – toronto, ca

[T51] Carnegie Mellon University Statistics Seminar – pittsburg, pa

[T50] New York University Mathematics and Data Science Seminar – new york, ny

[T49] MIT Operations Research / Statistics Seminar – boston, ma

[T48] Rutgers University Statistics Seminar – new brunswick, nj

[T47] Columbia University Decision, Risk, and Operations Seminar – new york, ny

[T46] University of Texas Austin Statistics Seminar – austin, tx

[T45] University of Minnesota Statistics Seminar – minneapolis, mn

[T44] University of Chicago Statistics Seminar – chicago, il

[T43] University of Michigan Statistics Seminar – ann arbor, mi

[T42] University of British Columbia Statistics Seminar – vancouver, ca

[T41] University of Southern California Statistics and Data Science Seminar – los angeles, ca

[T40] London Business School Management Science and Operations Seminar – london, uk

[T39] Northwestern IEMS/CS Seminar – evanston, il

2019

[T38] University of Waterloo Statistics Seminar – waterloo, ca

[T37] McGill University Statistics Seminar – montreal, ca

[T36] UC Irvine Statistics Seminar – irvine, ca

[T35] UC San Diego Statistics Seminar – san diego, ca

[T34] University of Michigan IOE Seminar – ann arbor, mi

[T33] UIUC Statistics Seminar – champagne, il

[T32] EPFL Statistics Seminar – Lausanne, Switzerland

[T31] University of Texas Austin Business Analytics Seminar – austin, tx

[T30] Harvard University Biostatistics and Epidemiology Seminar – boston, ma

[T29] North Carolina State University Statistics Seminar – raleigh, nc

[T28] Vector Institute Machine Learning Seminar – toronto, ca

[T27] Queen's University Business Analytics Seminar – kingston, ca

[T26] University of Notre Dame Business Analytics Seminar – notre dame, in

[T25] Columbia University Medical Center "Causality and the City" Lecture – new york, ny

[T24] Harvard Design of Experimental and Nonexperimental Studies Seminar – boston, ma

[T23] Mckinsey & Company QuantumBlack Data Science Seminar – boston, ma

[T22] Joint Statistical Meetings – denver, co

[T21] ICSA Applied Statistics Symposium – raleigh, nc

[T20] AAAI Spring Symposium Beyond Curve Fitting: Causation, Counterfactuals, and Imagination-based AI – stanford, ca

2018

[T19] NYC Artificial Intelligence & Machine Learning Meetup – new york, ny

[T18] Novartis Pharmaceuticals Analytics Conference – east hanover, nj

[T17] University of Pennsylvania Center for Causal Inference Meeting – philadelphia, pa

[T16] Cornell Artificial Intelligence Seminar – ithaca, ny

[T15] Columbia Computational Social Science Seminar *(with David Blei)* – new york, ny

[T14] RISELab at University of California Berkeley– berkeley, ca

[T13] Joint Statistical Meetings – vancouver, ca

[T12] ISBA World Meeting – edinburg, uk

[T11] BEEHIVE at Princeton University – princeton, nj

[T10] The Chodera Lab at Memorial Sloan Kettering Cancer Center – new york, ny

[T9] Minghui Yu Memorial Conference – new york, ny

Before 2018

[T8]	NIPS Approximate Bayesian Inference Workshop – long beach, ca	2017
[T7]	AT&T Labs – new york, ny	2017
[T6]	Novartis Pharmaceuticals – east hanover, nj	2017
[T5]	INFORMS Annual Meeting – houston, tx	2017
[T4]	Etsy – brooklyn, ny	2017
[T3]	ICSA International Conference – shanghai, china	2016
[T2]	Joint Statistical Meetings – chicago, il	2016
[T1]	The New York Academy of Sciences Machine Learning Symposium – new york, ny	2016