Will Wei Sun

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Current Appointments

Professor and University Faculty Scholar, *Aug 2026-*
Department of Quantitative Methods and Department of Statistics (Courtesy)
Daniels School of Business, Purdue University
Research Scientist, Meta *Aug 2026-*

Former Appointments

Associate Professor, Quantitative Methods and Statistics (Courtesy), *2023 - 2026*
Daniels School of Business, Purdue University
Assistant Professor, Quantitative Methods and Statistics (Courtesy), *2019 - 2023*
Daniels School of Business, Purdue University
Assistant Professor, Management Science, Miami Business School, *2016 - 2019*
Research Scientist, Advertising Science Team, Yahoo Labs, *2015 - 2016*

Education

Purdue University, West Lafayette, IN, USA
Ph.D. in Statistics, *Aug. 2011 - May 2015*
M.S. in Statistics and Computer Science, *Aug. 2012 - May 2014*

Princeton University, Princeton, NJ, USA
Visiting Student of Department of ORFE, *Sep. 2014 - May 2015*

University of Illinois at Chicago, Chicago, IL, USA
M.S. in Statistics, *Aug. 2009 - May 2011*

Nankai University, Tianjin, China
B.S. in Statistics, *Sep. 2005 - Jul. 2009*

Research Interests

Trustworthy AI: Statistical foundations of large language models (alignment, evaluation, self-improving); trustworthy reinforcement learning; low-rank tensor learning
Data Science: Recommender systems; online advertising; dynamic pricing; dynamic assortment selection; two-sided matching markets; neuroimaging analysis

Selected Submitted Preprints

*: former/current student co-authors; (✉): Correspondence author

12. Jiachun Li*, David Simchi-Levi, and **Will Wei Sun** (✉) (2026+), "LLM Evaluation as Tensor Completion: Low-Rank Structure and Semiparametric Efficiency", **Annals of Statistics**, Major Revision.

11. Pangpang Liu*, Junwei Lu, and **Will Wei Sun** (✉) (2025), "Uncertainty Quantification for LLM Reward Learning under Heterogeneous Human Feedback", **Journal of the American Statistical Association**, Major Revision.
2026 ASA Student Paper Award from the Business and Economic Statistics Section

10. Pangpang Liu*, Chengchun Shi and **Will Wei Sun** (✉) (2025), "Dual Active Learning for Reinforcement Learning from Human Feedback", **Operations Research**, Major Revision.
2025 ASA Student Paper Award Honorable Mention from the SLDS Section

9. Young Hyun Cho*, **Will Wei Sun** (✉) (2025), Privacy-Preserving Dynamic Assortment Selection, **Operations Research**, Major Revision.
2025 ASA Student Paper Award from the Business and Economic Statistics Section

8. Maoyu Zhang*, Biao Cai, **Will Wei Sun**, and Jingfei Zhang (2025), "Generalized Tensor Completion with Non-Random Missingness", **Journal of the American**

Statistical Association, Major Revision.

7. Yiyun Luo, **Will Wei Sun**, and Yufeng Liu (2026+), "Sample-Efficient LLM Evaluation via Pure Exploration under Task Heterogeneity", Submitted.

6. Young Hyun Cho*, **Will Wei Sun** (✉) (2026+), "When Should an AI Workflow Release? Always-Valid Inference for Black-Box Generate-Verify Systems, Submitted.

5. Young Hyun Cho*, Franz Stoll, **Will Wei Sun**, Guang Lin, and Stephan Biller (2026+), "'Two-Timescale Hierarchical Reinforcement Learning for Resilient Operations", Submitted.

4. Riddhiman Bhattacharya*, Thanh Nguyen, **Will Wei Sun**, and Mohit Tawarmalani (2026+), "Active Learning for Fair and Stable Online Allocations", Submitted.

3. Shirong Xu* and **Will Wei Sun** (✉) (2026+), "Do More AI Predictions Improve Statistical Inference? Filtered Prediction-Powered Inference", Submitted.

2. Jiachun Li*, David Simchi-Levi, and **Will Wei Sun** (✉) (2026+), "Low Rank for Rank: Uncertainty-Aware Task-Specific LLM Ranking under Sparse Pairwise Comparisons", Submitted.

1. Xin Wen*, Xi Chen, **Will Wei Sun**, and Yichen Zhang (2026+), "'Policy-Aware Design of Large-Scale Factorial Experiments", Submitted.

Journal Publications

*: former/current student co-authors; (✉): Correspondence author

32. Young Hyun Cho* and **Will Wei Sun** (✉) (2026), "Privacy-Preserving Alignment of Large Language Models with Differentially Private Reward Learning", Invited Paper, **Statistical Learning and Data Science**, Accepted.

31. Huihang Liu*, Danyang Wang*, Chengchun Shi, Shikai Luo, and **Will Wei Sun** (✉) (2026), "Pessimistic Causal Reinforcement Learning with Mediators for Confounded Offline Data", **Annals of Applied Statistics**, Accepted.

30. Pangpang Liu*, Chengchun Shi, and **Will Wei Sun** (✉) (2026), "Reinforcement Learning from Human Feedback: A Statistical Perspective", Invited Review Paper, **Annual Review of Statistics and Its Application**, Accepted.

29. Seong Jin Lee*, **Will Wei Sun**, and Yufeng Liu (2026), "Low-Rank Contextual Reinforcement Learning from Heterogeneous Human Feedback", **Journal of the American Statistical Association**, Accepted.
2025 ASA Student Paper Award Honorable Mention from the SLDS Section

28. Pangpang Liu*, **Will Wei Sun** (✉) (2026), "Fairness-aware Contextual Dynamic Pricing with Strategic Buyers", **Journal of the American Statistical Association**, Accepted.

27. Xin Wen*, **Will Wei Sun** (✉), and Yichen Zhang (2025), "Online Tensor Inference", **Operations Research**, Accepted.
2024 ASA Student Paper Award from the SLDS Section

26. Qiyu Han*, **Will Wei Sun** (✉), and Yichen Zhang (2025), "Online Statistical Inference for Matrix Contextual Bandit ", **Annals of Statistics**, Accepted.
Selected by Annals of Statistics Co-Editors to present at NeurIPS 2025

25. Seong Jin Lee*, **Will Wei Sun**, and Yufeng Liu (2025), "Low-Rank Online Dynamic Assortment with Dual Contextual Information", **Journal of the American Statistical Association**, Accepted.

24. Yiyun Luo*, **Will Wei Sun**, and Yufeng Liu (2025), "Rate-Optimal Online Learning for Dynamic Assortment Selection with Positioning", **Operations Research**, Accepted.

23. Shirong Xu*, **Will Wei Sun** (✉), and Guang Cheng (2025), "Rate-Optimal Rank Aggregation with Private Pairwise Rankings", **Journal of the American Statistical Association**, Vol. 120, No. 550, 737-750.

22. Biao Cai*, Emma Zhang, and **Will Wei Sun** (2025), "Jointly Modeling and Clustering Tensors in High Dimensions", **Operations Research**, Vol. 73, No. 3, pp. 1320-1335.

21. Pangpang Liu*, Zhuoran Yang, Zhaoran Wang, and **Will Wei Sun** (✉) (2025), "Contextual Dynamic Pricing with Strategic Buyers", **Journal of the American Statistical Association**, Vol. 120, No. 550, 896-908.

20. Jie Zhou*, Botao Hao, Zheng Wen, Emma Zhang, and **Will Wei Sun** (✉) (2025), "Stochastic Low-rank Tensor Bandits for Multi-dimensional Online Decision Making", **Journal of the American Statistical Association**, Vol. 120, No. 549, 198-211.

19. Yiyun Luo*, **Will Wei Sun**, and Yufeng Liu (2024), "Distribution-free Contextual Dynamic Pricing", **Mathematics of Operations Research**, Vol. 49, No. 1, 599-618. *2021 ASA Student Paper Award from the Business and Economic Statistics Section*

18. Chi-Hua Wang*, Zhanyu Wang*, **Will Wei Sun** (✉), and Guang Cheng (2024), "Online Regularization for High-Dimensional Dynamic Pricing Algorithms", **Journal of the American Statistical Association**, Vol. 11, No. 548, 2895–2907.

17. Pratik Ramprasad*, Yuantong Li*, Zhuoran Yang, Zhaoran Wang, **Will Wei Sun** (✉), and Guang Cheng (2023), "Online Bootstrap Inference For Policy Evaluation In Reinforcement Learning", **Journal of the American Statistical Association**, Vol. 118, No. 544, 2901-291.

16. Hilda S Ibriga* and **Will Wei Sun** (✉) (2023), "Covariate-assisted Sparse Tensor Completion", **Journal of the American Statistical Association**, Vol. 118, No. 544, 2605-2619.

15. Emma Zhang, **Will Wei Sun**, and Lexin Li (2023), "Generalized Connectivity Matrix Response Regression with Applications in Brain Connectivity Studies", **Journal of Computational and Graphical Statistics**, Vol. 32, No. 1, 252-262.

14. Jie Zhou*, **Will Wei Sun** (✉), Emma Zhang, and Lexin Li (2023), "Partially Observed Dynamic Tensor Response Regression", **Journal of the American Statistical Association**, Vol. 118, No. 541, 424-439.

13. Botao Hao*, Boxiang Wang*, Pengyuan Wang, Emma Jingfei Zhang, Jian Yang, and **Will Wei Sun** (✉) (2021), "Sparse Tensor Additive Regression", **Journal of Machine Learning Research**, 22, 1-43.

12. Emma Zhang, **Will Wei Sun**, and Lexin Li (2020), "Mixed-Effect Time-Varying Stochastic Block Model and Application in Brain Connectivity Analysis", **Journal of the American Statistical Association**, 115, 2022-2036.

11. Eric Chi, Brain Gaines*, **Will Wei Sun**, Hua Zhou, and Jian Yang (2020), "Convex Co-clustering of Tensors", **Journal of Machine Learning Research**, 21, 1-58.

10. Xiang Lv*, **Will Wei Sun**, Zhaoran Wang, Han Liu, Jian Yang, and Guang Cheng (2020), "Tensor Graphical Model: Non-convex Optimization and Statistical In-

ference", **IEEE Transactions on Pattern Analysis and Machine Intelligence**[1], 42, 2024-2037.

9. Will Wei Sun (✉) and Lexin Li (2019), "Dynamic Tensor Clustering", **Journal of the American Statistical Association**, 14, 1894-1907.

8. Botao Hao*, **Will Wei Sun**, Yufeng Liu, and Guang Cheng (2018), "Simultaneous Clustering and Estimation of Heterogeneous Graphical Models", **Journal of Machine Learning Research**, 18, 1-58.

7. Will Wei Sun, Guang Cheng, and Yufeng Liu (2018), "Stability-Enhanced Large-Margin Classifier Selection", **Statistica Sinica**, 28, 1-25.

6. Binhuan Wang, Yilong Zhang, **Will Wei Sun**, and Yixin Fang (2018), "Sparse Convex Clustering", **Journal of Computational and Graphical Statistics**, 27, 393-403.

5. Will Wei Sun (✉) and Lexin Li (2017), "STORE: Sparse Tensor Response Regression and Neuroimaging Analysis", **Journal of Machine Learning Research**, 18, 1-37.

4. Will Wei Sun, Junwei Lu, Han Liu, and Guang Cheng (2017), "Provable Sparse Tensor Decomposition", **Journal of the Royal Statistical Society: Series B**, 79, 899-916.

3. Will Wei Sun, Xinye Qiao, and Guang Cheng (2016), "Stabilized Nearest Neighbor Classifier and Its Statistical Properties", **Journal of the American Statistical Association**, 111, 1254-1265.

2. Wei Sun, Junhui Wang, and Yixin Fang (2013), "Consistent Selection of Tuning Parameters via Variable Selection Stability", **Journal of Machine Learning Research**, 13, 3419-3440.

1. Wei Sun, Junhui Wang, and Yixin Fang (2012), "Regularized K-means Clustering of High-dimensional Data and Its Asymptotic Consistency", **Electronic Journal of Statistics**, 6, 148-167.

Refereed Conference Publications

7. Gabriel Sargent*, **Will Wei Sun**, Zhengwu Zhang, and Yufeng Liu (2026), "Prediction-Powered Adaptive Inference with Pretrained AI Models for Contextual Bandits", *International Conference on Machine Learning (**ICML 2026**)*.

6. Riddhiman Bhattacharya*, Thanh Nguyen, **Will Wei Sun**, and Mohit Tawarmalani (2024), "Active Learning for Fair and Stable Online Allocations", *ACM Conference on Economics and Computation (**EC'24**)*.

5. Yiyun Luo*, **Will Wei Sun**, and Yufeng Liu (2022), "Contextual Dynamic Pricing with Unknown Noise: Explore-then-UCB Strategy and Improved Regrets", *Advances in Neural Information Processing Systems (**NeurIPS 2022**)*.

4. Will Wei Sun (✉), Junwei Lu, and Han Liu (2018), "Sketching Method for Large Scale Combinatorial Inference", ***NeurIPS 2018***.

3. Wei Sun, Zhaoran Wang, Han Liu, and Guang Cheng (2015), "Non-convex Statistical Optimization for Sparse Tensor Graphical Model", ***NeurIPS 2015***.

2. Wei Sun, Pengyuan Wang, Dawei Yin, Jian Yang, and Yi Chang (2015), "Causal Inference via Sparse Additive Models with Application to Online Advertising", *National Conference of the American Association for Artificial Intelligence (**AAAI 2015**)*.

[1] IEEE Transactions on Pattern Analysis and Machine Intelligence impact factor (2021): 16.4

1. Pengyuan Wang, **Wei Sun**, Dawei Yin, Jian Yang, and Yi Chang (2015), "Robust Tree-based Causal Inference for Complex Ad Effectiveness Analysis", *ACM International Conference on Web Search and Data Mining (**WSDM 2015**).*

Book Chapters

1. Will Wei Sun, Botao Hao*, and Lexin Li (2021), "Tensors in Modern Statistical Learning", Wiley StatsRef: Statistics Reference Online.

Grants

- "Enhancing Supply Chain Resilience and Visibility with Reinforcement Learning", Dauch Center Faculty Fellowship, $20,000, 2025-2026, PIs: Will Wei Sun and Guang Lin.
- "AI for Efficient and Fair Online Food Allocation", Young Family Interdisciplinary Research Award, $25,000, 2025-2026, PIs: Will Wei Sun and Guang Lin.
- "Trustworthy Reinforcement Learning for Online Decision Making", National Science Foundation, $450,000, 2022-2025, PI: Will Wei Sun; Co-PI: Yufeng Liu (UNC).
- "Design of Markets and Services Based on Learned User Behavior", Ross-Lynn Research Scholar Funds, $126,700, 2022-2024, PIs: Thanh Nguyen, Will Wei Sun, Mohit Tawarmalani.
- "Statistical Theory and Method of Large Tensor Data", Office of Naval Research, $150,551, PI, 2020-2022.
- "Tensor Bandit for Online Interactive Recommendation", Purdue Research Foundation, $8,000, PI, 2020.
- "Efficient Online Learning in Multidimensional Decision Problems", Adobe Research Gift Award, $10,000, PI, 2019.
- "Artificial Intelligence For Early Diagnosis of Alzheimer's Disease", University of Miami, Provost's Research Award, $12,000, PI, 2018.
- "Large Scale Ad Clustering via Spectral Decomposition", University of Miami, Provost's Research Award, $17,000, PI, 2017.

Mentees

Current PhD Students:

• Gabriel Sargent (joint with Zhengwu Zhang and Yufeng Liu), Statistics, UNC, *2026-*

Former Postdocs:

• Dr. Riddhiman Bhattacharya, *2022-2024*
PhD in Statistics, UMN, 2022
Jointly supervised with Thanh Nguyen and Mohit Tawarmalani
First job: Postdoc, Duke University.

• Dr. Shirong Xu, Postdoc, Management, Purdue, *2021-2022*
PhD in Statistics, City University of Hong Kong, 2021
Jointly supervised with Guang Cheng
First job: Assistant Professor, Xiamen University.

Former PhD Students:

• Young Hyun Cho (joint with Jordan Awan), Statistics, Purdue, *2026*
Current: Postdoc fellow, Harvard University.

• Seong Jin Lee (joint with Yufeng Liu), Statistics, UNC, *2026*
Current: Machine Learning Engineer, Pinterest.

• Pangpang Liu, PhD in Management (Quantitative Methods area), Purdue, *2025*
Current: Postdoc fellow, Yale University.

• Qiyu Han, PhD in Management (Quantitative Methods area), Purdue, *2024*
Current: Machine Learning Engineer, Walmart Global Tech.
• Danyang Wang (joint with Lingsong Zhang), PhD in Statistics, Purdue, *2024*
Current: Quantitative Researcher, Wells Fargo.
• Pratik Ramprasad (joint with Qifan Song), PhD in Statistics, *2023*
Current: Postdoc fellow, UMN.
• Jie Zhou (joint with Emma Zhang), PhD in Management Science, Miami, *2021*
Current: Applied Scientist, Amazon.
• Hilda Ibriga (joint with Bruce Craig), PhD in Statistics, Purdue, *2021*
Current: Research Scientist, Eli Lilly and Company.

PhD Students for Whom I Served as a Thesis Committee Member:
• Yuantong Li, PhD in Statistics, UCLA *2024*
Current: Research Scientist, Meta.
• Yiyun Luo, PhD in Statistics, UNC *2023*
Current: Assistant Professor of Statistics, SUFE.
• Chi-Hua Wang, PhD in Statistics, Purdue *2022*
Current: Postdoc, UCLA.
• Zhiyi Tian, PhD in Management, Purdue *2021*
Current: IQVIA.
• Ming Wang, PhD in Management Science, Miami *2018*
Current: Amazon.
• Chong Zhao, PhD in Management Science, Miami *2018*
Current: Equifax.

Former Summer Interns at Yahoo Labs:
• Boxiang Wang, PhD candidate of Statistics at UMN, *2016*
Current: Assistant Professor of Statistics at University of Iowa.
• Forough Arabshahi, PhD candidate of Computer Science at UCI, *2016*
Current: Senior Research Scientist at Meta (Facebook).

Teaching

MGMT 590, Reinforcement Learning and Large Language Models, Purdue University
• New graduate-level course offered in Spring/Fall 2026
• Topics: Bandit, policy optimization, PPO, Transformer, RLHF, DPO, LLM evaluation, chain-of-thought, RLVR, GRPO, DeepSeek R1, agents, and agentic RL.
• Hands-on demos using OpenAI gymnasium environments, the Hugging Face platform, the prism-alignment data, the Arena platform for large-scale human evaluation
• Overall evaluation (out of 5): 4.8 (26S)

MGMT 571, Data Mining, Purdue University
• Core course of MS in Business Analytics and Information Management
• Focus on business applications of data mining algorithms.
• Overall evaluation (out of 5): 4.8 (19F), 4.7 (20F), 4.6 (21F), 4.7 (22F), 4.8 (23F), 4.7 (24F), 4.7 (25F)
• Received "**Distinguished/Outstanding Instructor**" awards (2019-2025)

MGMT 670, Business Analytics, Purdue University
• Core course of MS in Business Analytics and Information Management
• Topics: descriptive statistics, probability, decision analysis, estimation, hypothesis testing, regression analysis
• Overall evaluation (out of 5): 4.8 (24F)
• Received "**Distinguished Instructor**" award based on students' evaluation

MGMT 571, Data Mining (Online Program), Purdue University

- Elective course of Online MS in Business Analytics and Online MBA
- New online course developed by me; consists of 30 recorded videos.
- Overall evaluation: 4.4/5 (20F), 4.3/5 (21F), 4.3/5 (22F), 4.4/5 (23F), 4.3/5 (24F)

MGMT 690, Doctoral Seminar in Statistical Machine Learning, Purdue University
- PhD-level course for students in Quantitative Methods
- Topics include high-dimensional statistics, supervised learning, tensor learning
- No evaluation due to a school-wide policy under Covid-19.

MAS 681, Statistical Machine Learning, Miami Business School
- PhD-level course for students in Management Science and Biostatistics
- Topics include deep learning, supervised learning, unsupervised learning
- Overall evaluation: 4.8/5 (18S), 5/5 (18F)

MAS 648, Data Mining, Miami Business School
- Core course of MS in Business Analytics
- Focus on business applications of data mining algorithms.
- Overall evaluation: 4.3/5 (18F)

MAS 311, Probability and Statistics, Miami Business School
- Core course of B.S.B.A. in Business Analytics
- Overall evaluation scores: 4.6/5 (17S), 4.3/5 (18S)

Honors

University Faculty Scholar *2026-2031*
"This award recognizes outstanding faculty members at Purdue University who are on an accelerated path to academic distinction."
Salgo-Noren Outstanding Master's Teaching Award *2025*
"This award is given annually to the faculty member who is identified as the Outstanding Teacher of the year by current Krannert Graduate Institute master's students."
Salgo-Noren Outstanding Master's Teaching Award, First runner-up *2023, 2024, 2026*
Distinguished/Outstanding Instructor (MGMT 571 & 670) *2019-2025*
Jay N. Ross Young Faculty Scholar, Krannert School of Management *2021*
Adobe Research Gift Award *2019*
University of Miami Provost Research Award *2017, 2018*
Institute of Mathematical Statistics Laha Travel Award *2013, 2015*
I.W. Burr Award, Purdue University *2015*
Lynn Fellowship, Purdue University *2011 - 2012*

Presentations

Invited Conference Talks
- IMS International Conference on Statistics and Data Science, Croatia *Dec., 2026*
- Statistical Foundations of AI, UC Santa Barbara *Nov., 2026*
- INFORMS Annual Meeting, San Francisco *Nov., 2026*
- SLDS Conference, New York *Nov., 2026*
- IMS Asia Pacific Rim Meeting, Hong Kong *Jun., 2026*
- 2026 Conference on Econometrics, Yale *Jun., 2026*
- RL from Offline Data and Human Feedback, Chicago, *Apr., 2026*
- IMS International Conference on Statistics and Data Science, Spain *Dec., 2025*
- 13th ICSA International Conference, Taipei, *Dec., 2025*
- Joint Statistical Meetings (JSM), Nashville, TN *Aug., 2025*
- IMS Network Workshop, Singapore, *May, 2025*
- IMSI Tensor Workshop, Chicago, *May, 2025*
- IMS International Conference on Statistics and Data Science, France *Dec., 2024*
- Computational and Methodological Statistics (CMStatistics), UK *Dec., 2024*

- INFORMS Annual Meeting, Seattle *Oct., 2024*
- JCSDS, Kunming *Jul., 2024*
- ICSA China Conference, Wuhan, *June, 2024*
- CMStatistics, Berlin, Germany *Dec., 2023*
- Joint Statistical Meetings (JSM), Toronto, Canada *Aug., 2023*
- ICSA International Conference, Hong Kong *July, 2023*
- ICSA China Conference, Chengdu, *June, 2023*
- INFORMS Annual Meeting, Indianapolis *Oct., 2022*
- Joint Statistical Meetings (JSM), DC *Aug., 2022*
- ICSA Canada Chapter Symposium, Alberta *Jul., 2022*
- ICSA Applied Statistics Symposium, FL *Jun., 2022*
- INFORMS Annual Meeting (Virtual) *Nov., 2021*
- INFORMS Annual Meeting (Virtual) *Nov., 2020*
- The 11th ICSA International Conference, Zhejiang, China *Dec., 2019*
- Joint Statistical Meetings (JSM), Denver, Colorado *Jul., 2019*
- POMS Annual Conference, DC *May, 2019*
- INFORMS Annual Meeting, AZ *Nov., 2018*
- Conference on Statistical Learning and Data Science, NY *Jun., 2018*
- ICSA Applied Statistics Symposium, NJ *Jun., 2018*
- International Conference on Econometrics and Statistics, Hongkong *Jun., 2018*
- IISA International Conference on Statistics, FL *May, 2018*
- CMStatistics, London, UK *Dec., 2017*
- Joint Statistical Meetings, Baltimore, MD *Aug., 2017*
- ICSA Applied Statistics Symposium, Chicago, IL *Jun., 2017*
- International Conference on Econometrics and Statistics, Hongkong *Jun., 2017*
- Conference on Statistical Learning and Data Science, NC *Jun., 2016*
- ICSA Applied Statistics Symposium, Atlanta, GA *Jun., 2016*

Invited Seminar Talks

- Dept. of MSCS, University of Illinois at Chicago, *Oct., 2026*
- ORFE, Princeton University, *Feb., 2026*
- Statistics, University of Michigan, *Nov., 2025*
- Tippie College of Business, University of Iowa, *Nov., 2025*
- Management Science, University of Miami *Oct., 2025*
- Marketing, Purdue University, *Apr., 2025*
- Statistics, University of North Carolina at Chapel Hill, *Mar., 2025*
- Institute for Data, Systems, and Society (IDSS), MIT, *Feb., 2025*
- Management Science, City University of Hong Kong, *May, 2024*
- Computational Mathematics, Science and Engineering, MSU *Mar., 2024*
- Math Department Colloquia, University of Cincinnati *Feb., 2024*
- Biostatistics, Columbia University, *Sep., 2023*
- Google Research, *Jan., 2023*
- Biostatistics, UC Berkeley, *Jan., 2023*
- Online Causal Inference Seminar, *Mar., 2022*
- Mendoza College of Business, University of Notre Dame, *Feb., 2022*
- Statistics, University of Virginia, *Oct., 2021*
- Statistics, The Chinese University of Hong Kong, *Sep., 2021*
- Supply Chain and Operations Management, Purdue University, *Sep., 2021*
- Data Science, The Chinese University of Hong Kong, Shenzhen, *Jul., 2021*
- Quantitative Methods, Purdue University, *Jan., 2019*
- Statistics, Purdue University, *Jan., 2019*
- Mathematical Sciences, New Jersey Institute of Technology, *Sep., 2017*
- Statistics, University of Wisconsin-Madison, *Sep., 2017*
- Biostatistics, University of Miami, *Apr., 2017*

- Statistics, Florida State University, *Apr., 2016*
- Statistics, North Carolina State University, *Feb., 2016*
- Krannert School of Management, Purdue University, *Jan., 2016*
- Management Science, University of Miami, *Dec., 2015*
- Math and Statistics, University of Massachusetts Amherst, *Dec., 2015*
- Biostatistics, New York University, *Mar. 2015*
- Machine Learning Seminar, Binghamton University, *Sep., 2014*
- Yahoo Labs, Sunnyvale, CA, *Aug., 2014*

Patents

"Systems and Methods for Measuring Complex Online Strategy Effectiveness", United States Patent Application 20160189202, Yahoo! Inc., December, 2014.

Industrial Experience

Meta, Remote
Research Scientist *Aug. 2026 -*
- Agent evaluation and recursive self-improving (RSI)

Yahoo Labs, Sunnyvale, CA
Research Scientist *Jun. 2015 - Aug. 2016*
- Worked on personalized advertising based on web-scale data via Hadoop and Pig.
- Developed time series forecasting for Yahoo's traffic via ensemble machine learning.
- Proposed a new budget pacing algorithm in real time bidding system to improve advertisers' return on investment (ROI).

Yahoo Labs, Sunnyvale, CA
Research Scientist Intern *Jun. 2014 - Aug. 2014*
- Proposed an efficient and robust tree-based causal inference framework for assessing the impact of complex advertising treatments from millions of users.
- Developed a sparse additive model equipped with Gaussian copula to model multivariate non-gaussian advertising treatments.

Software

1. **pass**, R package for prediction and stability selection of tuning parameters
2. **snn**, R package for stabilized nearest neighbor classifier
3. **Tlasso**, R package for sparse tensor graphical models
4. **scvxclustr**, R package for sparse convex clustering

Professional Service

Associate Editor:
Annals of Applied Statistics, *2025-*
Statistical Analysis and Data Mining, *2018-*

Academic Community Services:
- Chair of AI in Statistics, National Institute of Statistical Sciences (NISS), 2026-Now
- Secretary/Treasurer (Elected), Business and Economics Statistics Section, American Statistical Association (ASA), 2027-2028
- Business and Economics Statistics Section Leadership Committee Member, American Statistical Association (ASA), 2024-Now

University Committee and Administrative Responsibilities:
- PhD Coordinator of Quantitative Methods, Purdue University, 2023-Now
- Research Support Advisory Committee, DSB, Purdue University, 2026-
- Selection Advisory Committee for QM Head Selection, Purdue University, 2025
- Faculty Affairs Committee, DSB, Purdue University, 2025
- QM Clinical Faculty Hiring Committee, Purdue University, 2024-2025
- QM Clinical Faculty Hiring Co-chair, Purdue University, 2023-2024

- QM Lecturer Hiring Co-chair, Purdue University, 2023-2024
- QM Tenure-track Faculty Hiring Committee, Purdue University, 2023-2024
- Assistant Director of PhD program Hiring Committee, Purdue University, 2023
- QM Faculty Hiring Committee, Purdue University, 2022-2023
- PhD in Analytics Advisory Committee, Purdue University, 2022
- QM Faculty Hiring Co-chair, Purdue University, 2021-2022
- PhD Student Recruitment Committee, Purdue University, 2019-2023
- Data Analytics Research and Teaching Committee, Purdue University, 2019-2021
- Krannert Online Case Competition, Purdue University, 2021
- QM Faculty Hiring Committee, Purdue University, 2019-2020
- PhD Coordinator of Management Science, University of Miami, 2018-2019
- Departmental Seminar Organizer, University of Miami, 2016-2019
- PhD Student Recruitment Committee, University of Miami, 2016-2019
- Faculty Hiring Committee, University of Miami, 2017-2018

Conference Invited Session Organizer:

- Joint Statistical Meetings (JSM), Boston *Aug., 2026*
- ICSA China Conference, Zhuhai *Jun., 2025*
- Computational and Methodological Statistics (CMStatistics), UK *Dec., 2024*
- Joint Statistical Meetings (JSM), WA *Aug., 2024*
- ICSA International Conference, Hong Kong *Jul., 2023*
- INFORMS Annual Meeting, Indianapolis *Oct., 2022*
- Joint Statistical Meetings (JSM), DC *Aug., 2022*
- Joint Statistical Meetings (JSM), Seattle, WA *Jul., 2021*
- Conference on Statistical Learning and Data Science, Irvine, CA *May, 2020*
- Joint Statistical Meetings (JSM), Denver, Co *Jul., 2019*
- ASA's Symposium on Data Science and Statistics (SDSS), Seattle, WA *May, 2019*
- IMS Asia Pacific Rim Meeting (IMS-APRM), Singapore *Jun., 2018*
- Computational and Methodological Statistics (CMStatistics), UK *Dec., 2017*

Journal Reviewer:
Journal of the American Statistical Association (52)
Annals of Statistics (8)
Journal of the Royal Statistical Society: Series B (5)
Journal of Machine Learning Research (20)
Management Science (11)
Operations Research (2)
IEEE Transactions on Information Theory (2)
Annals of Applied Statistics (13)
Biometrics (3)

Refereed Machine Learning Conference Reviewer:
NeurIPS 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025;
ICML 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025;
ICLR 2018, 2019, 2020, 2021, 2022, 2023, 2024;
AAAI 2019, 2020, 2021; AISTAT 2018; WWW 2016; CIKM 2016

Grant Reviewer:
NSA-AMS, 2015
NSF-MMS, 2021, 2022

Student Paper Award Reviewer:
ASA Business and Economic Statistics Section Student Paper Competition, 2025-2026
ASA Statistical Learning and Data Science Student Paper Competition, 2022-2026