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CURRENT POSITION	Associate Professor Department of Biostatistics & Medical Informatics (School of Medicine & Public Health) Department of Statistics (College of Computing & Artificial Intelligence) University of Wisconsin-Madison Affiliated Faculty Data Science Institute, Institute on Aging, Center for Demography of Health and Aging, Center for Demography and Ecology, Center for Health Disparities Research, Institute for Diversity Science	6/2023–present
PREVIOUS POSITIONS	Assistant Professor Department of Biostatistics & Medical Informatics University of Wisconsin-Madison Associate Professor Assistant Professor Department of Biostatistics State University of New York at Buffalo (SUNY-Buffalo, or UB) Postdoctoral Researcher University of Waterloo, Canada Yale University, New Haven, CT	8/2020–6/2023 6–8/2020 9/2014–5/2020 2012–2014
EDUCATION	University of Wisconsin-Madison , Madison, WI PhD, Statistics Nankai University , Tianjin, China MS, Probability and Statistics BS, Mathematics (Chern Honored Class)	5/2012 6/2007 6/2004
SELECTED HONORS AND AWARDS	<i>Elected Fellow</i> , American Statistical Association (ASA) <i>Elected Member</i> , International Statistical Institute (ISI) <i>UB Exceptional Scholars: Young Investigator Award</i> , UB (5 awardees among all tenure-track faculty across the whole university) Selected for the <i>NIH BD2K Data Science Innovation Lab</i> on Data Science Challenges in Rural Health and Environmental Exposures <i>UUP Individual Development Award</i> , SUNY <i>NSF Nonparametric Statistics Workshop Travel Award</i> , NSF/UMICH <i>Workshop for Junior Investigators in Health Research Travel Award</i> , ENAR	2026 2021 2020 2019 2018/19 2016 2015

<i>15th IMS New Researchers Conference Travel Award</i> , IMS/SSC	2013
<i>Vilas Conference Travel Award</i> , The Graduate School, UW-Madison	2011
<i>Outstanding TA Award</i> , Department of Statistics, UW-Madison	2010
<i>Best Teaching Assistant</i> , Fall 2009, Spring 2010, Spring 2011, Fall 2011, Department of Statistics, UW-Madison	2009/10/11

RESEARCH INTERESTS

Methodology

reliable and responsible statistical inference in the AI era
semiparametric methods that are relevant to efficiency, robustness and their tradeoff
domain adaptation, transfer learning and weakly supervised learning
missing data analysis and causal inference

Application

patient-reported outcome, clinical trial, real-world data and real-world evidence, aging,
surgical outcome, mental health

PUBLICATIONS

Current/former mentee is indicated by an underline
*An * indicates corresponding author if not first author*

(1) Peer-Reviewed Journal/Conference Papers

Preprints

- [1] Dong, Y., **Zhao, J.*** and Lu, Y. (2026+). Learning the pareto frontier of predictive models under distribution shift. Submitted.
- [2] Shan, J., Tu, Y., Wang, G., Ying, C. and **Zhao, J.*** (2026+). Beyond exchangeability: Distribution-shift-aware integration of external control data in randomized trials. Submitted.
- [3] Ghosh, T., Shan, J., Yu, M. and **Zhao, J.*** (2026+). Efficient estimation of average treatment effect on the treated under endogenous treatment assignment. *Journal of Machine Learning Research*. Revised and Resubmitted.
- [4] Tang, Y., Ma, Y. and **Zhao, J.*** (2026+). Complier general causal effect in randomized controlled trials with one-sided noncompliance. Submitted.
- [5] Ying, C., Deng, S., Ning, Y., **Zhao, J.*** and Zhang, H. (2026+). Dependable exploitation of high-dimensional unlabeled data in an assumption-lean framework. *Journal of the American Statistical Association*. Rejected and Resubmitted.
- [6] Miao, X., **Zhao, J.** and Kang, H. (2026+). Transfer learning between US presidential elections: How should we learn from a 2020 ad campaign to inform 2024 ad campaigns? *Annals of Applied Statistics*. Revised and Resubmitted.
- [7] Miao, X., **Zhao, J.** and Kang, H. (2026+). The central role of SLOPE in designing robust studies for generalization. *Journal of the American Statistical Association*. Under Revision.

- [8] Ying, C., Dai, C., Ning, Y. and **Zhao, J.*** (2026+). Borrowing information from two external data sources: Synergistic effect and guaranteed performance. Manuscript.
- [9] Shetty, S., Ma, Y. and **Zhao, J.*** (2026+). Review paper. Manuscript.
- [10] Tian, Q., Zhang, X., Ma, Y. and **Zhao, J.*** (2026+). ELSA: Efficient label shift adaptation through the lens of semiparametric models. *Journal of Machine Learning Research*. Under Revision.
- [11] Dai, C., Ying, C., Ning, Y. and **Zhao, J.*** (2026+). Incorporating external controls for estimating the average treatment effect on the treated with high-dimensional data: Retaining double robustness and ensuring double safety. *Statistica Sinica*. Under Revision.

2026

- [12] Shan, J., Chen, Z., Dong, Y., Wang, Y. and **Zhao, J.*** (2026). SADA: Safe and adaptive aggregation of multiple black-box predictions in semi-supervised learning. *Annals of Applied Statistics*. In press.
URL not available yet.
- [13] Lee, S., Ma, Y. and **Zhao, J.*** (2026). Efficient inference under label shift in unsupervised domain adaptation. *Journal of Machine Learning Research*. In press.
URL not available yet.
- [14] Ying, C., Jin, J., Zhang, H., Tian, Q., Ma, Y., Li, S. and **Zhao, J.*** (2026). Unsupervised domain adaptation for binary classification with an unobservable source subpopulation. *Transactions on Machine Learning Research*. In press.
<https://openreview.net/forum?id=aOKcvMt8xE>
- [15] Ruff, C., Naren, T., Wieben, O., Nagpal, P., Johnson, K., **Zhao, J.**, Grist, T., Baschnagel, A. and Glide-Hurst, C. (2026). Deducing cardiorespiratory motion of cardiac substructures using a novel 5D-MRI workflow for radiotherapy. *Physics in Medicine and Biology*. In press.
<https://10.1088/1361-6560/ae5752>
- [16] Wang, L., Ma, Y. and **Zhao, J.*** (2026). Borrowing information from an unidentifiable model: Guaranteed efficiency gain with a dichotomized outcome in the external data. *Biometrics*. In press.
<https://10.1093/biomtc/ujag062>
- [17] Shan, J., Ying, C. and **Zhao, J.** (2026). Shan, Ying and Zhao’s contribution to the discussion of ‘Augmented balancing weights as linear regression’ by Bruns-Smith et al. *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*. In press. [paper discussion]
<https://10.1093/jrsssb/qkag022>
- [18] Tian, Q., Zeng, D. and **Zhao, J.*** (2026). Identification and efficient estimation in regression analysis with response missing not at random. *Statistica Sinica*. In press.
<https://doi.org/10.5705/ss.202024.0204>
- [19] Summerfield, N., He, Q., Kuo, A., Ruff, C., Pan, J., Ghanem, A., Zhu, S., Kumar, A., Nagpal, P., **Zhao, J.**, Dong, M. and Glide-Hurst, C. (2026). Modality-AGnostic Image Cascade (MAGIC) for multi-modality cardiac substructure segmentation. *Radiotherapy &*

Oncology. **214**: 111296.
<https://doi.org/10.1016/j.radonc.2025.111296>

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- [20] Lee, S., Ma, Y. and **Zhao, J.*** (2025). Doubly flexible estimation under label shift. *Journal of the American Statistical Association*. **120**: 278–290.
<https://doi.org/10.1080/01621459.2024.2321653>
[GitHub Replication File](#)
- [21] Ying, C., Jin, J., Guo, Y., Li, X., Liang, M. and **Zhao, J.*** (2025). Towards the efficient inference by incorporating automated computational phenotypes under covariate shift. *Proceedings of the 42nd International Conference on Machine Learning (ICML)*. **PMLR 267**: 72505–72534. [acceptance rate: 3260/12107=26.9%]
<https://proceedings.mlr.press/v267/ying25a.html>
[GitHub Replication File](#)
- [22] Miao, J., Miao, X., Wu, Y., **Zhao, J.** and Lu, Q. (2025). Assumption-lean and data-adaptive post-prediction inference. *Journal of Machine Learning Research*. **26(179)**: 1–31.
<http://jmlr.org/papers/v26/24-0056.html>
- [23] Shetty, S., Ma, Y. and **Zhao, J.*** (2025). Robust estimation under a semiparametric propensity model for nonignorable missing data. *Electronic Journal of Statistics*. **19**: 956–981.
<https://doi.org/10.1214/25-EJS2355>
- [24] Tian, Q. and **Zhao, J.*** (2025). Efficient and model-agnostic parameter estimation under privacy-preserving post-randomization data. *Canadian Journal of Statistics*. **53**: e70003.
<https://doi.org/10.1002/cjs.70003>
- [25] Yu, A. and **Zhao, J.** (2025). Counterfactual slopes and their applications in social stratification. *Sociological Methodology*. **55(2)**: 329–355.
<https://doi.org/10.1177/00811750251340392>
- [26] Lakpa, K., Bowen, A., Menon, E., Ring, S., Nordby, P., Rasmussen, M., Arroyo, N., **Zhao, J.**, Fernandes-Taylor, S., Francis, D. on behalf of the CoPE Collaborative. (2025). Job accommodations and job loss from unilateral vocal fold paralysis. *Otolaryngology-Head and Neck Surgery*. **173(4)**: 938–946.
<https://doi.org/10.1002/ohn.1334>
- [27] Ring, S., Colwell, N., Bowen, A., Arroyo, N., Lakpa, K., Faus, J., Rasmussen, M., Nordby, P., **Zhao, J.**, Francis, D. on behalf of the CoPE Collaborative. (2025). National trends in treatment of acute unilateral vocal fold paralysis at tertiary care voice centers. *Laryngoscope Investigative Otolaryngology*. **10(2)**: e70135.
<https://doi.org/10.1002/lio2.70135>
- [28] Keating, J., Xu, T., Graham, M., Ramesh, M., Khanna, S., Dixon, J., Kates, A., Haight, K., **Zhao, J.**, Saddler, C. and Safdar, N. (2025). Oral vancomycin for prevention of recurrent *Clostridioides difficile* infection: A randomized clinical trial. *JAMA Network Open*. **8(7)**: e2517834.
<https://doi.org/10.1001/jamanetworkopen.2025.17834>

- [29] Yan, Y., Kim, J., Nejad-Davarani, S., Dong, M., Hurst Jr., N., **Zhao, J.** and Glide-Hurst, C. (2025). Deep learning-based synthetic computed tomography for low-field brain magnetic resonance-guided radiation therapy. *International Journal of Radiation Oncology, Biology, Physics*. **121**: 832–843.
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- 2024**
- [30] Deng, S., Ning, Y., **Zhao, J.***, and Zhang, H. (2024). Optimal and safe estimation for high-dimensional semi-supervised learning. *Journal of the American Statistical Association*. **119**: 2748–2759.
<https://doi.org/10.1080/01621459.2023.2277409>
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- [31] Feng, H., Duan, J., Ning, Y. and **Zhao, J.*** (2024). Test of significance for high-dimensional thresholds with application to individualized minimal clinically important difference. *Journal of the American Statistical Association*. **119**: 1396–1408.
<https://doi.org/10.1080/01621459.2023.2195977>
[GitHub Replication File](#)
- [32] Kim, H., Zhang, X., **Zhao, J.** and Tian, Q. (2024). ReTaSA: A Nonparametric Functional Estimation Approach for Addressing Continuous Target Shift. *The Twelfth International Conference on Learning Representations (ICLR)*. [acceptance rate: 2260/7262=31.1%]
<https://openreview.net/forum?id=KdVvOA00Or>
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- [33] Miao, J., Wu, Y., Sun, Z., Miao, X., Lu, T., **Zhao, J.** and Lu, Q. (2024). Valid inference for machine learning-assisted genome-wide association studies. *Nature Genetics*. **56**: 2361–2369.
<https://doi.org/10.1038/s41588-024-01934-0>
- [34] Xu, T. and **Zhao, J.*** (2024). Relaxed doubly robust estimation in causal inference. *Statistical Theory and Related Fields*. **8**: 69–79.
<https://doi.org/10.1080/24754269.2024.2313826>
- [35] Ghosh, T., Yu, M. and **Zhao, J.*** (2024). A selective review on conditional density estimation. *Statistics and Its Interface*. **17**: 549–564.
<https://dx.doi.org/10.4310/23-SII821>
- [36] **Zhao, J.**, Zhou, Z. and Bisson, L. (2024). An asymptotically normal representation for the minimal clinically important difference under a nonconvex surrogate loss. *Statistics and Its Interface*. **17**: 591–603.
<https://dx.doi.org/10.4310/23-SII831>
- [37] Summerfield, N., Morris E., Banerjee, S., He, Q., Ghanem, A., Zhu, S., **Zhao, J.**, Dong, M. and Glide-Hurst, C. (2024). Enhancing precision in cardiac segmentation for MR-Guided radiation therapy through deep learning. *International Journal of Radiation Oncology, Biology, Physics*. **120**: 904–914.
<https://doi.org/10.1016/j.ijrobp.2024.05.013>

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- [38] Tian, Q., Zhang, X. and **Zhao, J.*** (2023). ELSA: Efficient label shift adaptation through the lens of semiparametric models. *Proceedings of the 40th International Conference on Machine Learning (ICML)*. **PMLR 202**: 34120–34142. [acceptance rate: 1827/6538=27.9%]
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 - [39] Guo, A., **Zhao, J.** and Nabi, R. (2023). Sufficient identification conditions and semiparametric estimation under missing not at random mechanisms. *Proceedings of the Thirty-Ninth Conference on Uncertainty in Artificial Intelligence (UAI)*. **PMLR 216**: 777–787. [acceptance rate: 243/778=31.2%]
DOI not available.
 - [40] Shetty, S., Ma, Y. and **Zhao, J.*** (2023). The pursuit of efficiency versus robustness: A learning experience from analyzing a semiparametric nonignorable propensity score model. *Observational Studies*. **9**: 97–104.
<https://doi.org/10.1353/obs.2023.0009>
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 - [43] Feng, H., Ning, Y. and **Zhao, J.*** (2022). Nonregular and minimax estimation of individualized thresholds in high dimension with binary responses. *Annals of Statistics*. **50**: 2284–2305.
<http://dx.doi.org/10.1214/22-AOS2188>
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<https://doi.org/10.1016/j.csda.2021.107322>
 - [45] **Zhao, J.** (2022). Comment on “Assumption-lean inference for generalised linear model parameters” by Vansteelandt, S. and Dukes, O. *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*. **84**: 725–726. [paper discussion]
<https://doi.org/10.1111/rssb.12534>
 - [46] Fernandes-Taylor, S., Damico-Smith, C., Arroyo, N., Wichmann, M., **Zhao, J.**, Feurer, I. and Francis, D. for the CoPE Collaborative (2022). Multicenter development and validation of the vocal cord paralysis experience (CoPE), a patient-reported outcome measure for unilateral vocal fold paralysis-specific disability. *JAMA Otolaryngology-Head & Neck Surgery*. **148**: 756–763.
<https://doi.org/10.1001/jamaoto.2022.1545>
 - [47] Greyner-Almeida, H., Fard, A., Chen, C., **Zhao, J.** and Patel, S. (2022). A portable, low-cost practice model for microsurgical skills training. *International Ophthalmology*. **42**:

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- [50] Fang, F., **Zhao, J.**, Ahmed, S.E. and Qu, A. (2021). A weak-signal-assisted procedure for variable selection and statistical inference with an informative subsample. *Biometrics*. **77**: 996–1010.
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- [51] Mickevicius, N., Kim, J., **Zhao, J.**, Morris, Z., Hurst Jr., N. and Glide-Hurst, C. (2021). Toward magnetic resonance fingerprinting for low-field MR-guided radiation therapy. *Medical Physics*. **48**: 6930–6940.
<https://doi.org/10.1002/mp.15202>
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- [54] Gannon, E., Higham, D., Gardner, B., Nan, N., **Zhao, J.** and Bisson, L. (2021). Changes in neuromuscular status across a season of professional men’s ice hockey. *Journal of Strength and Conditioning Research*. **35**: 1338–1344.
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2017

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2016 and before

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SOFTWARE
DEVELOPMENT

MCID

- An R package developed for a unified statistical learning approach to compute the minimal clinically important difference (MCID).
- Developers: Zehua Zhou and Jiwei Zhao
- <https://cran.r-project.org/web/packages/MCID/>
- https://zzh721721.shinyapps.io/MCID/?_ga=2.127257549.1504003632.1632767225-1103524745.1632185460

SIsMiss

- An R package developed for parameter estimation, variable selection and statistical inference in a linear regression model under a flexible nonignorable missing data mechanism.
- Developers: Chi Chen and Jiwei Zhao
- <https://github.com/chENCHI0526/SIsMiss>

TVsMiss

- An R package developed for tuning parameter selection and variable selection under an arbitrary missingness mechanism.
- Developers: Yang Yang and Jiwei Zhao
- <https://github.com/yang0117/TVsMiss>

ACTIVE GRANTS

NSF/Statistics/2610561 7/1/2026–6/30/2029

Title: Reliable Methods for Estimation, Prediction and Causal Inference with Multiple AI-Generated Synthetic Datasets

Cost: \$250K

Role: **Principal Investigator**

Effort: 1.00 calendar

NIH/NIDCD/R01DC021431 9/18/2023–8/31/2028

Title: CoPE II: Individualizing Patient-Reported Outcomes in Patient Care for Vocal Fold Paralysis in the Clinic and in Research (MPI: Francis/Zhao)

Role: **Principal Investigator**

Effort: 3.00 calendar

NSF/Statistics/2310942 7/1/2023–6/30/2027

Title: Semiparametric Techniques for Data Exploitation across Heterogeneous Populations

Cost: \$225K

Role: **Principal Investigator**

Effort: 1.00 calendar

NIH/NHLBI/R01HL153720 8/23/2021–7/31/2026

SELECTED
COMPLETED
GRANTS

Title: Reducing Cardiac Toxicity with Deep Learning and MRI-guided Radiation Therapy (PI: Glide-Hurst)
Role: Co-Investigator
Effort: 0.60 calendar

NIH/NCATS/UL1TR002373 9/21/2017–6/30/2027
Title: University of Wisconsin Institute for Clinical and Translational Research (PIs: Brasier and Burnside)
Role: Co-Investigator
Effort: 1.20 calendar

NIH/NCI/P30CA014520 4/25/1997–3/31/2028
Title: UW Comprehensive Cancer Center Support Grant (PI: Bailey)
Role: Statistician
Effort: 1.20 calendar

NSF/NIGMS/1953526 and 2122074 8/1/2020–7/31/2025
[NIH/R01 equivalent]
Title: A Robust and Efficient Statistical Framework for Handling Missing-not-at-random Data in Patient Reported Outcomes and Beyond
Cost: \$600K
Role: **Principal Investigator**
Effort: 2.00 calendar

Wisconsin Partnership Program 6/1/2022–3/31/2025
Title: WPP Strategic Grant Program (PI: Gillick)
Role: Collaborator
Effort: 1.80 calendar

American Family Funding Initiative 9/1/2023–2/28/2025
Title: ELSA: Efficient Label Shift Adaptation for Accurate Claim Fraud Detection
Cost: \$100K
Role: **Principal Investigator**
Effort: 1.00 calendar

VA HSR&D 7/1/2023–6/30/2027
Title: BCCMA: Targeting Gut-Microbiome in Veterans Deployment related Gastrointestinal and Liver diseases; CMA5- Functional metagenomics in GWI-related gut dysfunction (PI: Safdar)
Role: Co-Investigator
Effort: 1.20 calendar

VA HSR&D 5/1/2021–9/30/2024
Title: Effect of Expanding (Gloving) Barrier Precautions for Reducing Clostridium difficile Acquisition (and Infection) in VA: The GLORI Study (PI: Safdar)
Role: Co-Investigator
Effort: 1.20 calendar

NIH/AHRQ/R01HS026226 8/1/2018–5/31/2024

Title: Fluoroquinolone Restriction for the Prevention of C. difficile Infection (CDI): The FIRST Trial (PI: Safdar)

Role: Co-Investigator

Effort: 1.20 calendar

NIH/AHRQ/R01HS025713

9/1/2017–6/30/2023

Title: Efficacy of Oral Vancomycin Prophylaxis for Prevention of Recurrent C. difficile Infection (PI: Safdar)

Role: Co-Investigator

Effort: 0.60 calendar

NIH/NCI/R01CA204189

7/1/2016–6/30/2022

Title: Development of Anatomical Patient Models to Facilitate MR-only Treatment Planning (PI: Glide-Hurst)

Role: Co-Investigator

Effort: 0.60 calendar

UB/OVPRED

7/1/2018–12/31/2019

Title: Estimation and Inference in Nonignorable Missing Response Data with Flexible Missingness Mechanism

Role: **Principal Investigator**

PROFESSIONAL
PRESENTATIONS

***A total of 46 presentations were given by the end of 2020.
Presentations given starting from 2021 are listed below.***

(a) Invited Conference Keynotes

- [47] ASA Kansas-Western Missouri Chapter Annual Spring Meeting. Manhattan, KS. 5/2026

(b) Invited Conference Presentations

- [48] ICSA Applied Statistics Symposium. Virtual. 9/2021
- [49] ENAR Spring Meeting. Virtual. 3/2022
- [50] BIRS Workshop on “Emerging Challenges for Statistics and Data Sciences: Complex Data with Missingness, Measurement Errors, and High Dimensionality”. Virtual. 5/2022
- [51] EcoSta 2022. Virtual. 6/2022
- [52] Joint Statistical Meetings. Washington, DC. 8/2022
- [53] 2022 International Symposium on Modern Data Science Application, Practice, and Theory. New Haven, CT. 11/2022
- [54] 2022 IMS International Conference on Statistics and Data Science (ICSIDS). Florence, Italy. 12/2022
- [55] CMStatistics 2022. Virtual. 12/2022
- [56] ENAR Spring Meeting. Nashville, TN. 3/2023
- [57] Workshop of “Machine Learning and Artificial Intelligence for Personalized Medicine” in the Program of “Mathematics, Statistics, and Innovation in Medical and Health Care”, Institute for Mathematical and Statistical Innovation (IMSI). Chicago, IL. 4/2023
- [58] ICORS2023: International Conference on Robust Statistics. Toulouse, France. 5/2023

- [59] The 10th International Purdue Symposium on Statistics. West Lafayette, IN. 6/2023
- [60] ICSA Applied Statistics Symposium. Ann Arbor, MI. 6/2023
- [61] ICSA China Conference. Chengdu, China. 7/2023
- [62] The 12th ICSA International Conference. Hong Kong. 7/2023
- [63] The 1st Joint Conference on Statistics and Data Science in China. Beijing, China. 7/2023
- [64] The 9th International Forum on Statistics (RUC IFS 2023). Beijing, China. 7/2023
- [65] EcoSta 2023. Tokyo, Japan. 8/2023
- [66] Joint Statistical Meetings. Toronto, Canada. 8/2023
- [67] 2023 INFORMS Annual Meeting. Phoenix, AZ. 10/2023
- [68] CMStatistics 2023. Berlin, Germany. 12/2023
- [69] 2023 IMS International Conference on Statistics and Data Science (ICSIDS). Lisbon, Portugal. 12/2023
- [70] IMS Asia Pacific Rim Meeting 2024. Melbourne, Australia. 1/2024
- [71] BIRS Workshop on “Bridging Statistical Strategies for Censored Covariates”. Banff, Canada. 1-2/2024
- [72] ENAR Spring Meeting. Baltimore, MD. 3/2024
- [73] WNAR/IMS/Graybill Annual Meeting. Fort Collins, CO. 6/2024
- [74] ICSA Applied Statistics Symposium. Nashville, TN. 6/2024
- [75] Korean Statistical Society (KSS) Summer Conference. Seoul, Korea. 7/2024
- [76] Hangzhou International Conference on Frontiers of Data Science. Hangzhou, China. 7/2024
- [77] The 2nd Joint Conference on Statistics and Data Science in China. Kunming, China. 7/2024
- [78] Joint Statistical Meetings. Portland, OR. 8/2024
- [79] TRAIL (Translational AI Laboratory) Research Salon Series: From Prediction to Actionable Inference in the Era of AI. New York, NY. 8/2024
- [80] Statistical Learning and Data Science (SLDS) Conference. Newport Beach, CA. 11/2024
- [81] 2024 IMS International Conference on Statistics and Data Science (ICSIDS). Nice, France. 12/2024
- [82] ENAR Spring Meeting. New Orleans, LA. 3/2025
- [83] ICORS2025: International Conference on Robust Statistics. Stresa, Italy. 5/2025
- [84] ICSA China Conference. Zhuhai, China. 6/2025
- [85] The 7th Pacific Causal Inference Conference (PCIC). Beijing, China. 7/2025
- [86] International Forum on Statistics (IFS 2025). Beijing, China. 7/2025
- [87] The 3rd Joint Conference on Statistics and Data Science in China. Hangzhou, China. 7/2025
- [88] NSF@75: Advancing Statistical Science for a Data-Driven World. Virtual. 7/2025
- [89] Joint Statistical Meetings. Nashville, TN. 8/2025
- [90] 2025 IMS International Conference on Statistics and Data Science (ICSIDS). Seville, Spain. 12/2025

- [91] ENAR Spring Meeting. Indianapolis, IN. 3/2026
- [92] Symposium on Data Science and Statistics (SDSS). Milwaukee, WI. 4/2026
- [93] IMS Asia Pacific Rim Meeting 2026. Hong Kong. 6/2026
- [94] IMSI Workshop on “New Horizons on Model Transportability and Data Integration”. Chicago, IL. 6/2026
- [95] NUS-IMS Workshop on “Modern Challenges in Data Decentralization: Federated Learning, Differential Privacy and Communication Constraints”. Singapore. 7/2026
- [96] The 4th Joint Conference on Statistics and Data Science in China. Guiyang, China. 7/2026
- [97] International Biometric Conference. Seoul, South Korea. 7/2026
- [98] Joint Statistical Meetings. Boston, MA. 8/2026 (forthcoming)
- [99] The 4th International Workshop on Statistical Theory and Related Fields. Cambridge, MA. 8/2026 (forthcoming)
- [100] Statistical Learning and Data Science (SLDS) Conference. New York, NY. 11/2026 (forthcoming)
- [101] Conference on Statistical Foundations of Artificial Intelligence (CSFAI). Santa Barbara, CA. 11/2026 (forthcoming)
- [102] 2026 IMS International Conference on Statistics and Data Science (ICSDS). Split, Croatia. 12/2026 (forthcoming)

(c) Invited Department Seminars

- [103] Department of Statistics, University of Wisconsin-Madison. Virtual. 3/2021
- [104] Division of Biostatistics and Bioinformatics, Department of Public Health Sciences, Pennsylvania State University. Virtual. 9/2021
- [105] Department of Statistics, Chinese University of Hong Kong. Virtual. 12/2021
- [106] Causal Inference and Missing Data Group, French Institute for Research in Computer Science and Automation (Inria). Virtual. 3/2022
- [107] Department of Biostatistics and Medical Informatics, University of Wisconsin-Madison. Virtual. 3/2022
- [108] Department of Statistics, Purdue University. Virtual. 10/2022
- [109] Division of Epidemiology and Biostatistics, University of Illinois at Chicago. Virtual. 10/2023
- [110] Department of Statistics and Probability, Michigan State University. East Lansing, MI. 11/2023
- [111] Department of Biostatistics, University of North Carolina at Chapel Hill. Chapel Hill, NC. 2/2024
- [112] Seminar for Statistics, ETH Zürich. Zürich, Switzerland. 5/2024
- [113] Research Center for Statistics, University of Geneva. Geneva, Switzerland. 5/2024
- [114] Center for Statistical Science, Peking University. Beijing, China. 6/2024
- [115] School of Management, University of Science and Technology of China. Hefei, China. 7/2024
- [116] Department of Biostatistics, Brown University. Providence, RI. 3/2025

- [117] SLAM Working Group, Johns Hopkins University. Virtual. 3/2025
- [118] Statistics and Data Science Seminar Series, University of Massachusetts Amherst. Amherst, MA. 4/2025
- [119] Statistics Seminar, Department of Mathematical Sciences, Indiana University Indianapolis. Virtual. 9/2025
- [120] ASA SLDS Webinar Series. Virtual. 12/2025
- [121] Statistics Seminar, Department of Statistics, Iowa State University. Ames, IA. 3/2026
- [122] Biostatistics Seminar Series, Department of Biostatistics, Epidemiology & Informatics, University of Pennsylvania. Philadelphia, PA. 4/2026
- [123] Biostatistics Seminar, Department of Biostatistics, UCLA. Los Angeles, CA. 5/2026
- [124] Department of Statistics and Data Science, Tsinghua University. Beijing, China. 6/2026
- [125] School of Statistics, Renmin University of China. Beijing, China. 6/2026
- [126] Department of Statistics and Data Science, Southern University of Science and Technology. Shenzhen, China. 6/2026
- [127] Department of Mathematics, The Hong Kong University of Science and Technology. Hong Kong. 6/2026
- [128] Division of Biostatistics, Medical College of Wisconsin. Milwaukee, WI. 3/2027 (forthcoming)
- [129] Dr. Bing Zhang Department of Statistics, University of Kentucky. Lexington, KY. 3/2027 (forthcoming)

TEACHING
ACTIVITIES

Instructor

UW-Madison, Madison, WI

- STAT/BMI 828: *Semiparametric Methods in Data Science* Fall 2021/24
- STAT/BMI 727: *Theory and Methods of Longitudinal Data Analysis* Fall 2023/25
- STAT/BMI 541: *Introduction to Biostatistics* Fall 2020
- STAT/BMI 877: *Statistical Methods for Molecular Biology* (Guest Lecture)
- High Dimensional Statistical Inference Spring 2024
- STAT/BMI 642: *Statistical Methods for Epidemiology* (Guest Lecture)
- Random Effects Spring 2022
- BMI 544: *Introduction to Clinical Trials II* (Guest Lecture)
- Design of Health Services Research Interventions Fall 2021/22/23
- Patient-Reported Outcomes Fall 2021

Instructor

UB, Buffalo, NY

- STA 521: *Introduction to Theoretical Statistics I* Fall 2015/16/17/18/19
- STA 522: *Introduction to Theoretical Statistics II* Spring 2020
- STA 622: *Limit Theory* Spring 2015
- EEH 506: *Application of Biostatistics to Epidemiology II* Spring 2016/17/18/19

Instructor

Across the World

- JSM CE Course *Towards Trustworthy Statistical Inference with Black-Box AI Predictions*, Boston, MA 8/2026 (forthcoming)
- Short Course at ASA Kansas-Western Missouri Chapter Annual Spring Meeting *Introduction to Causal Inference in a Semiparametric Lens*, Manhattan, KS 5/2026
- SDSS Short Course *Towards Trustworthy Statistical Inference with Black-Box AI Predictions*, Milwaukee, WI 4/2026
- JSM CE Course *Disentangle the Semiparametric Structure in Statistical Models, with Applications in Causal Inference and Model Transportability*, Nashville, TN 8/2025
- *Introduction to Causal Inference*, Geneva, Switzerland 5/2024
- *Statistical Methods for Analysis with Missing Data*, Shanghai, China 7/2017
- *Mathematical Statistics*, Changchun, China 7/2015

STUDENT MENTORING

(a) at UB (2014-2020)

- Serve as Committee Chair of PhD Student:

[1] Yang Yang, 2018

Dissertation: Regularization for variable selection with flexible missingness mechanism: methodology, algorithm and application

First Placement: AbbVie Inc., North Chicago, IL

[2] Chi Chen, 2020

Dissertation: A nuisance-free inference procedure accounting for the unknown missingness mechanism

First Placement: Novartis Institutes for Biomedical Research, Shanghai, China

[3] Zehua Zhou, 2020

Dissertation: An estimation and inferential framework for minimal clinically important difference

First Placement: Bristol Myers Squibb, Lawrence, NJ

- Serve as Committee Chair of 3 Master Students (Chi Chen 2017, Zehua Zhou 2017, Kai Chen 2019), Supervisor of 5 Research Assistants, Committee Member of 6 PhD Students, and Committee Member of 13 Master Students

(b) at UW-Madison (2020-present)

- Serve as Supervisor of Postdoctoral Researcher:

[1] Qinglong Tian, 6/2021–10/2022

PhD in Statistics, Iowa State University, 2021

First Placement: Tenure-Track Assistant Professor, Department of Statistics and Actuarial Science, University of Waterloo, Canada

[2] Trinetri Ghosh, 7/2021–12/2022 (jointly with Menggang Yu)

PhD in Statistics, Pennsylvania State University, 2021

First Placement: US Food and Drug Administration (FDA)

[3] Chao Ying, 2/2023–1/2026

PhD in Statistics, East China Normal University, 2022

First Placement: TBA

[4] Jiawei Shan, 3/2025–present

PhD in Statistics, Renmin University of China, 2024

[5] Wei Li, 8/2026–present (jointly with Yinqiu He)

PhD in Statistics, Washington University in St. Louis, 2026

- Serve as Supervisor of PhD Student:

[4] Tinghui Xu (Biomedical Data Science PhD, in progress)

[5] Vivian Mogbolu (Statistics PhD, in progress)

[6] Yiming Dong (Biomedical Data Science PhD, in progress, jointly with Yang Lu)

- Serve as Academic Advisor of PhD Student:

Hongting Chen (2025-2026), Anh Nguyen (2025-2026), Shiyi Zhang (2026-2027),

- Serve as Supervisor of Master Student:

Yiteng Tu (MSDS 2025), Jun Cha (MSDS 2026), Yunqi Han (MSDS 2027)

- Serve as Supervisor of Undergraduate Student:

Yiming Dong (Class of 2026), Runlin Song (Class of 2026), Zijie Xia (Class of 2027)

- Serve as Supervisor of Research Assistant:

Chi-Shian Dai (Summer 2021, Spring 2022), Evan Gorstein (Summer 2021)

- Serve as Supervisor of Rotation Student:

Krittisak Chaiyakul (Summer 2021), Colin Longhurst (Fall 2021), Jiren Sun (Spring 2022), Tinghui Xu (Fall 2022), Wallance Wei (Fall 2023)

- Serve as Committee Member of PhD Student:

Rui Chen (Statistics PhD, 2021), Yongsu Lee (Statistics PhD, 2022), Chi-Shian Dai (Statistics PhD, 2023), Lianlian Du (Biomedical Data Science PhD, 2023), Jinyi Wang (Statistics PhD, 2023), Yongfeng Wu (Statistics PhD, 2023), Joe Yingzhou Liu (Biomedical Data Science PhD, 2023), Ralph Trane (Statistics PhD, 2023), Jay Jojo Cheng (Biomedical Data Science PhD, 2023), Hongzhi Liu (Statistics PhD, 2024), Ang Yu (Sociology PhD, 2025), Nabil Awan (Statistics PhD, 2026), Chenyang Jiang (Statistics PhD, 2026),

PROFESSIONAL SERVICES

(a) Journal Associate Editor (Action Editor)/Conference Area Chair (Senior Program Committee)

- *AAAI Conference on Artificial Intelligence (AAAI)* 2027–present
- *Conference on Neural Information Processing Systems (NeurIPS)* 2026–present
- *International Conference on Machine Learning (ICML)* 2026–present
- *Transactions on Machine Learning Research* 2025–present
- *Journal of the Royal Statistical Society Series A: Statistics in Society* 2025–present
- *Scandinavian Journal of Statistics* 2025–present
- *Annals of Applied Statistics* 2024–present
- *International Conference on Artificial Intelligence and Statistics (AISTATS)* 2024–present

- *Journal of Nonparametric Statistics* 2017–2026
- *Stat* 2019–2023
- *Statistica Sinica* (Special Issue) 2015–2018

(b) Referee (* represents more than one paper)

American Journal of Epidemiology, Annals of Applied Statistics, Annals of Epidemiology, Annals of the Institute of Statistical Mathematics, Annals of Statistics (*), *Biometrics* (*), *Biometrika, Biostatistics & Epidemiology, BMC Medical Research Methodology, BMJ Open, Canadian Journal of Statistics* (*), *Communications in Statistics, Computational Statistics and Data Analysis, Contemporary Clinical Trials Communications, Econometrics and Statistics, Electronic Journal of Statistics, Genetic Epidemiology, IEEE Transactions on Information Theory, International Statistical Review, Journal of the American Statistical Association* (*), *Journal of Applied Statistics, Journal of Machine Learning Research, Journal of Multivariate Analysis, Journal of Nonparametric Statistics* (*), *Journal of the Royal Statistical Society, Series B (Statistical Methodology), Journal of System Science and Complexity, Nature Communications, Neurocomputing, PeerJ, PLoS ONE, Random Matrices: Theory and Applications, Scandinavian Journal of Statistics, Statistica Sinica* (*), *Statistical Methods in Medical Research, Statistical Modelling, Statistical Theory and Related Fields, Statistics and Its Interface* (*), *Statistics in Medicine* (*), *Statistics and Probability Letters, TEST, Mathematical Reviews/MathSciNet* (*)

(c) Grant Scientist Reviewer

- Reviewer, Analytics and Statistics for Population Research Panel B, NIH 2023/26
- Reviewer, ICTR KL2 Application, UW-Madison 2024
- Reviewer, Hydrologic Sciences Program, NSF 2024
- Reviewer, American Family Funding Initiative, UW-Madison 2024
- Reviewer, Methodology, Measurement, and Statistics Program, NSF 2017/21/22
- Methodology/Scientist Reviewer, Improving Healthcare Systems Merit Review, Patient-Centered Outcomes Research Institute (PCORI) 2018/20
- Reviewer, Natural Sciences and Engineering Research Council (NSERC) Discovery Program, Canada 2020
- Reviewer, Medical Research Council (MRC), United Kingdom 2019
- FY15 Gulf War Illness Research Program (GWIRP) Therapeutics and Treatment Panel, Department of Defense 2015

(d) Evaluating External Colleagues

- Applying for Associate Professorship with Tenure (1) 2026

(e) Service to the Profession

- **Executive Committee (2021–2026), Publications Officer (2021–2022), Secretary/Treasurer (2023–2024), Program Chair-Elect (2025), Program Chair (2026), Statistical Learning and Data Science (SLDS) Section of ASA.** 2021–2026
- **Organizer (main contact), BIRS Workshop “Trustworthy Statistical Inference in the AI Era”.** Banff, Canada. 2027
- **ENAR Program Committee, ENAR Spring Meeting.** 2022/27

- **Financial Oversight Committee**, Council of Sections Governing Board (COSGB), ASA. 2025–2027
- **Program Chair**, Statistical Learning and Data Science (SLDS) Conference. 2026
- **Organizer (main contact)**, IMSI Workshop “New Horizons on Model Transportability and Data Integration”. Chicago, IL. 2026
- **Program Chair**, IMS Program Chair for 2026 ENAR Spring Meeting. 2026
- **Program Chair**, Statistical Learning and Data Science (SLDS) Conference. 2024
- **Scientific Programme Committee**. *The 6th International Conference on Econometrics and Statistics (EcoSta 2023)*. Tokyo, Japan. 2023
- **International Organizing Committee and International Scientific Committee**. *The 10th International Conference and Workshop on High Dimensional Data Analysis (ICW-HDDA-X)*. Virtual. 2020
- **Student Paper Competition Committee**. *ICSA Applied Statistics Symposium*. Ann Arbor, Michigan. 2023
- **Student Paper Award Committee Chair**, Nonparametric Statistics Section of ASA. 2022–2023
- **Student Paper Award Committee**, Nonparametric Statistics Section of ASA. 2021–2022
- **ICHPS 2018 Student Committee**. *The 12th International Conference on Health Policy Statistics*. Charleston, South Carolina. 2018
- **Invited Session Organizer and Chair**. *Joint Statistical Meetings*. 2017–present
- **Invited Session Organizer and Chair**. *ENAR Spring Meeting*. 2022/23
- **Invited Session Organizer and Chair**. *ICSA International Conference*. 2016/23
- **Invited Session Organizer and Chair**. *ICSA Applied Statistics Symposium*. 2018/19/20
- **Invited Session Organizer and Chair**. *International Conference on Econometrics and Statistics (EcoSta)*. 2022/23
- **Invited Session Organizer and Chair**. *International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics)*. 2019/22
- **Invited Session Organizer and Chair**. *The 33rd New England Statistics Symposium*. 2019

(f) Service to UB

- Graduate Level Adjudication and Grievance Committee Pool 2018–2020
- Graduate Admissions Committee, Department of Biostatistics 2016–2020
- Master Comprehensive Exam Committee, Department of Biostatistics 2015–2020
- Research Associate Professor Hiring Committee, Department of Biostatistics 2018–2019
- Research Assistant Professor Hiring Committee, Department of Biostatistics 2017–2018
- Seminar Committee, Department of Biostatistics 2015–2016
- Assistant Professor Hiring Committee, Department of Biostatistics 2015–2016
- Faculty Council, School of Public Health and Health Professions 2014–2016

- PhD Qualifying Exam Committee, Department of Biostatistics 2014–2015

(g) Service to UW-Madison

- Graduate Faculty Executive Committee 2026–2030
- Information Technology Committee 2026–2029
- Executive Committee, DSI 2026–present
- Research Professor Track Appointments and Promotion Committee (RPTAPC), SMPH 2025–2028
- Graduate Studies Committee, Statistics Department 2024–present
- PhD Program in Biomedical Data Science Admissions Committee, BMI Department 2023–present
- MS Exam Committee, Statistics Department 2024–2025
- Departmental Seminar Committee Chair, BMI Department 2021–2023

**PROFESSIONAL
SOCIETIES**

American Statistical Association (ASA), Elected Fellow
 Institute of Mathematical Statistics (IMS)
 International Chinese Statistical Association (ICSA)
 International Biometric Society (ENAR)
 International Statistical Institute (ISI), Elected Member