ZHIYANG ZHOU

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Assistant Professor of Biostatistics
University of Wisconsin-Milwaukee

METHODOLOGICAL RESEARCH TOPICS

Functional/longitudinal data analysis, deep learning, transfer learning, survival analysis, tensor data analysis, design of experiments.

COLLABORATIVE RESEARCH EXPERIENCE

I have collaborated with investigators from many areas including the atmospheric science, cardiovascular disease, diabetes, infectious disease, mental health, and nutrition science.

EMPLOYMENT

University of Wisconsin-Milwaukee, U.S.	*2023–*
Assistant Professor of Biostatistics (Tenure-track)	
University of Manitoba, Canada	*2021–23*
Assistant Professor of Statistics (Tenure-track)	
Northwestern University, U.S.	*2020–21*
Research Scholar	
Simon Fraser University, Canada	*2019*
Sessional Instructor	

EDUCATION

Simon Fraser University, Canada	*2015–20*
Ph.D. in Statistics	
Supervisor: Richard Lockhart, Professor, Fellow of Royal Society of Canada	
Nankai University, China	*2009–12*
M.Sc. in Probability and Statistics	
Supervisor: Runchu Zhang, Professor	
Beijing Normal University, China	*2005–09*
B.Sc. in Statistics	

FUNDING

Natural Sciences and Engineering Research Council of Canada (NSERC)	
Principal Investigator, NSERC Discovery Grants Individual Program	*2022–27*
Principal Investigator, NSERC Discovery Launch Supplements	*2022–23*

PUBLICATIONS

Peer-Reviewed

13. **Z. Zhou**, Y. Deng, L. Liu, H. Jiang, Y. Peng, X. Yang, Y. Zhao, H. Ning, N. Allen, J. Wilkins, K. Liu, D. Lloyd-Jones, & L. Zhao. (2026). Deep neural network with a smooth monotonic output layer for dynamic risk prediction. *Statistics in Medicine* 45:e70401. doi:10.1002/sim.70401

12. J. Liu, **Z. Zhou**, X. Cheng, D. Zhang, L. Li, & N. Vangeepuram. (2024). Food insecurity trends and disparities according to immigration status in the US households, 2011–2021. *Preventive Medicine* 187:108121. doi:10.1016/j.ypmed.2024.108121

11. J. Liu, **Z. Zhou**, X. Cheng, & N. Vangeepuram. (2023). Geographic and sociodemographic variations in prevalence of mental health symptoms among US youths, 2022. *American Journal of Public Health* 113:1116–1119. doi:10.2105/AJPH.2023.307355

10. Y. Deng, L. Liu, H. Jiang, Y. Peng, Y. Wei, **Z. Zhou**, Y. Zhong, Y. Zhao, X. Yang, J. Yu, Z. Lu, A. Kho, H. Ning, N. B. Allen, J. T. Wilkins, K. Liu, D. M. Lloyd-Jones, & L. Zhao (2023). Comparison of state-of-the-art neural network survival models with the pooled cohort equations for cardiovascular disease risk prediction. *BMC Medical Research Methodology* 23:22. doi:10.1186/s12874-022-01829-w

9. **Z. Zhou** & P. Sang (2022). Continuum centroid classifier for functional data. *Canadian Journal of Statistics* 50:200–220. doi:10.1002/cjs.11624

8. Y. Zhao, Y. Wang, J. Liu, H. Xia, Z. Xu, Q. Hong, **Z. Zhou**, & L. Petzold (2021). Empirical quantitative analysis of COVID-19 forecasting models. *2021 International Conference on Data Mining Workshops (ICDMW)* 517–526. (Best Paper Award) doi:10.1109/ICDMW53433.2021.00069

7. **Z. Zhou** (2021). Fast implementation of partial least squares for function-on-function regression. *Journal of Multivariate Analysis* 185:104769. doi:10.1016/j.jmva.2021.104769

6. **Z. Zhou** (2019). Functional continuum regression. *Journal of Multivariate Analysis* 173:328–346. doi:10.1016/j.jmva.2019.03.006

5. **Z. Zhou** & R. Zhang (2014). A generalized general minimum lower order confounding criterion for nonregular designs. *Journal of Statistical Planning & Inference* 148:95–100. doi:10.1016/j.jspi.2013.12.003

4. W. Wang, D. Gong, **Z. Zhou**, & Y. Guo (2012). Robustness of the aerosol weekly cycle over Southeastern China. *Atmospheric Environment* 61:409–418. doi:10.1016/j.atmosenv.2012.07.029

Under Review

3. **Z. Zhou** & L. Zhao. (2025). Parsimonious joint model of survival outcome and multiple longitudinal risk factors.

Preprint

2. Y. Yang, & **Z. Zhou** (2026). Transfer learning for scalar-on-function regression via control variates. arXiv:2601.17217

1. **Z. Zhou**, & R. Lockhart. (2020). Partial least squares for sparsely observed curves with measurement errors. arXiv:2003.11542

SERVICE

Editorial Board Member
hLife (2024–28), *Journal of Multivariate Analysis* (2024–26)
Conference Committee Member
Program Committee for the 6th ICSA-Canada Chapter Symposium
Scientific Committee for the 5th International Applied Statistics Conference (UYIK-2024)
Grant Reviewer
NSERC Discovery Grants
Journal Reviewer
American Journal of Public Health, Biometrics, Biostatistics & Epidemiology, Chemometrics and Intelligent Laboratory Systems, Computational Statistics, Canadian Journal of Statistics, Environmental Modeling & Assessment, hLife, IISE Transactions, Journal of Alzheimer's Disease, Journal of Applied Statistics, Journal of Computational and Graphical Statistics, Journal of Medical Internet Research, Journal of Multivariate Analysis, Knowledge-Based Systems, Mathematical Modelling and Analysis, Statistics and Computing, Statistics in Biosciences, Statistics in Medicine, Statistics & Probability Letters, Technometrics, The American Statistician, Trials
Conference Reviewer
Conference on Neural Information Processing Systems (NeurIPS), International Conference on Learning Representations (ICLR)

INVITED PRESENTATIONS

2025
The 3rd Joint Conference on Statistics and Data Science in China;
WNAR/IMS Annual Meeting.
2024
The 18th International Joint Conference on Computational and Financial Econometrics (CFE) and Computational and Methodological Statistics (CMStatistics), CFE-CMStatistics 2024;
The 7th International Conference on Econometrics and Statistics (EcoSta 2024);
The 2nd Joint Conference on Statistics and Data Science in China;
SFU Statistical Learning for Large Scale Data Conference;
The 6th ICSA-Canada Chapter Symposium;
Southeast Wisconsin Data Science (SEAWINDS) Collaborative First Annual Research Symposium.
2023
The 16th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2023);
The 12th ICSA International Conference.
2022
The 15th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2022);
Biostatistics and Bioinformatics Round, George & Fay Yee Centre for Healthcare Innovation;
Biostatistics Seminar Series, Northwestern University;
The 5th ICSA-Canada Chapter Symposium;
Machine Learning Special Interest Group Meeting, George & Fay Yee Centre for Healthcare Innovation;
ICSA Applied Statistics Symposium.
2021
NIC-ASA & ICSA Midwest Chapter Joint Fall Meeting;

ICSA Applied Statistics Symposium.

TEACHING

Supervision

- **Doctoral Students**: Donald Cramer (2023–, Biostatistics, uwm.edu).

- **Master Students**: Liliana Kasta (2024–25, Biostatistics, uwm.edu), Ian Nadolski (2023–25, Biostatistics, uwm.edu), Kelly Wikoff (2023–24, Biostatistics, uwm.edu) Ke Wang (2022–24, Statistics, umanitoba.ca), Yuting Kang (2023–25, Math, ctgu.edu.cn, with Chang-Lin Xiang and Changyu Guo as senior supervisors).

- **Undergraduate Students**: Omar Hassan (2022–23, Physics & Astronomy, umanitoba.ca, with Wouter Deconinck as the senior supervisor).

Courses

- **University of Wisconsin-Milwaukee**: Data Management and Visualization in R (2025–26), Probability and Statistical Inference (2024–25), Applied Survival Analysis (2024, 26).

- **University of Manitoba**: Multivariate Analysis (2022–23), Introduction to Statistical Inference (2022), Statistical Inference (2022).

- **Simon Fraser University**: Statistical Theory (2019).