Zhiyang Zhou, Ph.D.

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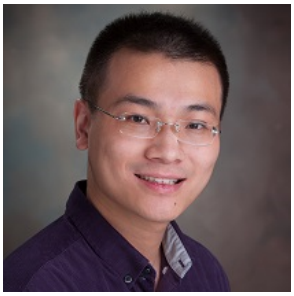
https://zhiyanggeezhou.github.io/



Academic Interests

- Functional/longitudinal data analysis;
- Deep learning/deep neural network;
- Survival analysis;
- Tensor data analysis;
- Design of experiments.

Employment

2023– **Assistant Professor (Tenure-Track)**, University of Wisconsin-Milwaukee, United States.

2021–23 **Assistant Professor (Tenure-Track)**, University of Manitoba, Canada.

2020–21 **Postdoctoral Trainee**, Northwestern University, United States.
Supervisor: Lihui Zhao, Associate Professor.

2019 **Sessional Instructor**, Simon Fraser University, Canada.

Education

2015–20 **Ph.D. in Statistics**, Simon Fraser University, Canada.
Supervisor: Richard A. Lockhart, Professor, Fellow of Royal Society of Canada.
Thesis: *Supervised Basis Functions Applied to Functional Regression and Classification.*

2009–12 **M.Sc. in Probability & Statistics**, Nankai University, China.
Supervisor: Runchu Zhang, Professor.

2005–09 **B.Sc. in Statistics**, Beijing Normal University, China.

Publications

1. Deng, Y., Liu, L., Jiang, H., Peng, Y., Wei, Y., **Zhou**, **Z.**, Zhong, Y., Zhao, Y., Yang, X., Yu, J., Lu, Z., Kho, A., Ning, H., Allen, N. B., Wilkins, J. T., Liu, K., Lloyd-Jones, D. M., & Zhao, L. (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. https://doi.org/10.1186/s12874-022-01829-w

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

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

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

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

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

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

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

Research Grants

2022– **Principal Investigator**, NSERC Discovery Grants (with Discovery Launch Supplement).

Service

Editorial Board Member

2024–26 Early Career Advisory Board of *Journal of Multivariate Analysis*.

Conference Committee Member

2024 Scientific Committee for the 5th International Applied Statistics Conference (UYIK-2024).

Reviewer

- **Grants**: NSERC Discovery Grants.
- **Journals**: *American Journal of Public Health, Biometrics, Biostatistics and Epidemiology, Canadian Journal of Statistics, Chemometrics and Intelligent Laboratory Systems, Computational Statistics, Environmental Modeling & Assessment, IISE Transations, Journal of Computational and Graphical Statistics, Journal of Medical Internet Research, Journal of Multivariate Analysis, Knowledge-Based Systems, Mathematical Modelling and Analysis, Statistics in Medicine, Statistics and Probability Letters, Technometrics, Trials*.
- **Conferences**: *Conference on Neural Information Processing Systems (NeurIPS), International Conference on Learning Representations (ICLR).*

Invited Presentations

2024 7th International Conference on Econometrics and Statistics (EcoSta 2024)

1st Annual Southeast Wisconsin Data Science Research Symposium (SEAWINDS 2024)

2023 16th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2023)

12th ICSA International Conference.

2022 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.

5th ICSA-Canada Chapter Symposium.

ICSA Applied Statistics Symposium.

Machine Learning Special Interest Group Meeting, George & Fay Yee Centre for Healthcare Innovation.

2021 NIC-ASA & ICSA Midwest Chapter Joint Fall Meeting.

ICSA Applied Statistics Symposium.

Teaching

Supervision

- **Master Students**: Ian Nadolski (2023–, Public Health, uwm.edu), Manthan Mehta (2023–, Public Health, uwm.edu), Kelly Wikoff (2023–, Public Health, uwm.edu), Ke Wang (2022–, Statistics, umanitoba.ca), Yuting Kang (2023–, 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**: PH 716 Applied Survival Analysis (2024).
- **University of Manitoba**: STAT 3100 Introduction to Statistical Inference (2022), STAT 3690 Multivariate Analysis (2022–23), STAT 4100 Statistical Inference (2022).
- **Simon Fraser University**: STAT 450 Statistical Theory (2019).

Miscellaneous

Award

2021 **Best Paper Award**, 9th Workshop on Data Mining in Biomedical Informatics and Healthcare (DMBIH'21) in Conjunction with IEEE International Conference on Data Mining (ICDM'21).

2019 **Excellence in Teaching**, Simon Fraser University Faculty of Science.