Zhiyang Zhou, Ph.D.
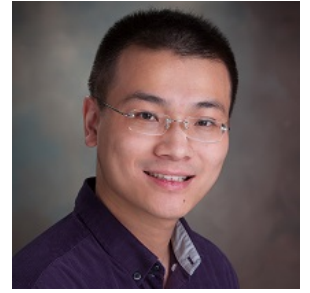
@ Joseph J. Zilber College of Public Health
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🌐 https://zhiyanggeezhou.github.io/

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

Peer-reviewed

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`

Under review

1 Liu, J., **Zhou**, Z., Cheng, X., Zhang, D., Li, L., Zhang, X., & Vangeepuram, N. (2023). *Trends and disparities in food insecurity prevalence by immigration status in the united states from 2011 to 2021* [under review].

Research Grants

2022–23 🔖 **Principal Investigator**, NSERC Discovery Grants (with Discovery Launch Supplement; terminated early due to relocation).

Service

Editorial Board Member

2024–25 🔖 *hLife* (Youth Editorial Board).

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

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, hLife, IISE Transactions, 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 🔖 17th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2024).

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

🔖 6th ICSA-Canada Chapter Symposium

🔖 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.

Invited Presentations (continued)

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.