Zhiyang Zhou, Ph.D., Asst. Prof.
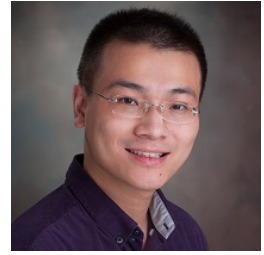@ Department of Statistics, University of Manitoba
✉ zhiyang.zhou@umanitoba.ca
🌐 https://zhiyanggeezhou.github.io/

Academic Interests

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

Employment

2021 –		**Assistant Professor (Tenure-Track)**, University of Manitoba, Canada.
2020 – 2021		**Postdoctoral Trainee**, Northwestern University, United States. Supervisor: Lihui Zhao, Associate Professor.
2019		**Sessional Instructor**, Simon Fraser University, Canada.

Education

2015 – 2020		**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 – 2012		**M.Sc. in Probability & Statistics**, Nankai University, China. Supervisor: Runchu Zhang, Professor.
2005 – 2009		**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. **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

3. 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

4. **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

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

6   **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

7   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 – 2027	🔖 **Principal Investigator**, NSERC Discovery Grant (with Discovery Launch Supplement).
2021 – 2027	🔖 **Principal Investigator**, University of Manitoba Research Startup Fund.

Invited Presentations

2023	🔖 ICSA International Conference.
	🔖 Biostatistics Seminar, University of Wisconsin-Milwaukee.
2022	🔖 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.
	🔖 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

🔖 **University of Manitoba**: STAT 3100 Introduction to Statistical Inference (2022–24), STAT 3690 Multivariate Analysis (2022–23), STAT 4100 Statistical Inference (2022).

🔖 **Simon Fraser University**: STAT 450 Statistical Theory (2019).

Supervision

🔖 **Master Students**: Ke Wang (2022–, Statistics, U Manitoba).

🔖 **Undergraduate Students**: Omar Hassan (2022–23, Physics & Astronomy, U Manitoba, with Prof. Wouter Deconinck as the senior supervisor).

Miscellaneous

Award

2021	🔖 **Best Paper Award**, the 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.

Miscellaneous (continued)

Reviewer

- **Journals**: *American Journal of Public Health, Biometrics, Biostatistics and Epidemiology, Canadian Journal of Statistics, Chemometrics and Intelligent Laboratory Systems, Computational Statistics, 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).*