

CONTACT
INFORMATION

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RESEARCH
INTERESTS

Statistical Machine Learning, Transfer Learning, Probabilistic Graphical Models, Distributed/Federated Learning, High-Dimensional Statistics, Data Market and Data Valuation.

EDUCATION

University of Chicago, Booth School of Business, Chicago, Illinois, USA

Ph.D. in Econometrics and Statistics, Oct 2020 - Jun 2025 (expected)

- Advisors: Mladen Kolar and Cong Ma

University of Chicago, Booth School of Business, Chicago, Illinois, USA

M.B.A., Concurrent with Ph.D., Oct 2020 - Jun 2025 (expected)

- Concurrent with Ph.D. degree.

University of Chicago, Chicago, Illinois, USA

M.Sc in Statistics, Oct 2018 - Jun 2020

- GPA: 4.00/4.00
- Master thesis topic: FuDGE: Functional Differential Graph Estimation with fully and discretely observed curves
- Advisors: Mladen Kolar and Rina Foygel Barber

Nankai University, Tianjin, China

B.Sc in Statistics (Degree with Honor), Sep 2014 - Jun 2018

- GPA: 93/100 (rank 1/82)
- Honors: National Scholarship (top 1%), Outstanding Graduate (top 3%), Tianjin Municipal People's Government Scholarship (top 3%), Zhide Scholarship (top 3%), First-Class Scholarship of Nankai University (top 5%)

WORK IN
PROGRESS

* denotes equal contribution.

- [3] Boxin Zhao, Cong Ma, and Mladen Kolar. Trans-Glasso: A Transfer Learning Approach to Precision Matrix Estimation. arXiv:2411.15624
- [2] Boxin Zhao, Lingxiao Wang, Ziqi Liu, Zhiqiang Zhang, Jun Zhou, Chaochao Chen, and Mladen Kolar. Adaptive Client Sampling in Federated Learning via Online Learning with Bandit Feedback. arXiv:2105.02487
- [1] Boxin Zhao*, Weishi Wang*, Dingyuan Zhu, Ziqi Liu, Dong Wang, Zhiqiang Zhang, Jun Zhou and Mladen Kolar. arXiv:2406.06829

PUBLICATIONS

* denotes equal contribution.

- [8] Boxin Zhao, Shengjun Zhai, Y. Samuel Wang, and Mladen Kolar. High-dimensional Functional Graphical Model Structure Learning via Neighborhood Selection Approach. **Published on Electronic Journal of Statistics (EJS) 2024.** arXiv:2105.02487
- [7] Katherine Tsai, Boxin Zhao, Sanmi Koyejo, and Mladen Kolar. Latent Gaussian Functional Graphical Models. **Published on Journal of the American Statistical Association (JASA), Theory and Methods, 2024.** arXiv:2105.02487
- [6] Boxin Zhao, Boxiang Lyu, Raul Castro Fernandez and Mladen Kolar. Addressing Budget Allocation and Revenue Allocation in Data Market Environment Using an Adaptive Sampling Algorithm. **Published on International Conference on Machine Learning (ICML) 2023.** arXiv:2306.02543
- [5] Filip Hanzely*, Boxin Zhao*, and Mladen Kolar. Personalized Federated Learning: A Unified Framework and Universal Optimization Techniques. **Published on Transactions on Machine Learning Research (TMLR) 2023.** arXiv:2102.09743
- [4] Lingxiao Wang, Boxin Zhao, and Mladen Kolar. Differentially Private Matrix Completion through Low-rank Matrix Factorization. **Published on Artificial Intelligence and Statistics (AISTATS) 2023.**
- [3] Boxin Zhao, Boxiang Lyu, and Mladen Kolar. L-SVRG and L-Katyusha with Adaptive Sampling. **Published on Transactions on Machine Learning Research (TMLR) 2023.** arXiv:2201.13387
- [2] Boxin Zhao, Y. Samuel Wang, and Mladen Kolar. FuDGE: A Method to Estimate a Functional Differential Graph in a High-Dimensional Setting. **Published on Journal of Machine Learning Research (JMLR) 2022.** arXiv:2003.05402
- [1] Boxin Zhao, Y. Samuel Wang, and Mladen Kolar. Direct Estimation of Differential Functional Graphical Models. **Published on Conference on Neural Information Processing Systems (NeurIPS) 2019.** arXiv:1910.09701

PROFESSIONAL SERVICE

Journal Reviewer

- Journal of Machine Learning Research (JMLR)
- Journal of the Royal Statistical Society Series B (JRSSB)
- IEEE Transactions on Signal Processing

Conference Reviewer

- Conference on Neural Information Processing Systems (NeurIPS)
- International Conference on Machine Learning (ICML)
- International Conference on Learning Representations (ICLR)
- International Conference on Artificial Intelligence and Statistics (AISTATS)
- Uncertainty in Artificial Intelligence (UAI)

HONORS AND AWARDS

- 2022, Top 10% Highest Scoring Reviewers Award, ICML 2022
- 2021, Katherine Dusak Miller PhD Fellowship, Booth School of Business, University of Chicago
- 2019, Top 400 Highest Scoring Reviewers Award, NeurIPS 2019
- 2019, Student Travel Award, NeurIPS 2019
- 2018, Outstanding Graduate, Nankai University
- 2018, Zhide Scholarship, Nankai University
- 2017, Tianjin Municipal People's Government Scholarship, Nankai University
- 2016, National Scholarship, Nankai University
- 2015, First-Class Scholarship of Nankai University, Nankai University

RESEARCH AND
INTERNSHIP
EXPERIENCE

The Voleon Group, Quantitative Research Intern, Berkeley, USA **Jun 2024 - Aug 2024**
• Supervisor: Ritesh Kolte and Blair Bilodeau
• Topic: Machine Learning in Finance.

Amazon, Applied Scientist Intern, Seattle, USA **Jun 2022 - Sep 2022**
• Supervisor: Qi Wang and Sunil Gandhi
• Topic: Data Evaluation in Learning to Rank Models

Ant Financial Group, Research Intern, Beijing, China **Jun 2021 - Sep 2021**
• Supervisor: Ziqi Liu
• Topic 1: Client Sampling in Federated Learning System
• Topic 2: Causal Discovery with Network Linked Data

Yang Lab, Nankai University, Tianjin, China **Sep 2017 - May 2018**
• Supervisor: Jianyi Yang, Professor, School of Mathematical Sciences, Nankai University
• Topic: A Feature-Based Improvement of Computational Protein Function Prediction Using Machine Learning Methods

SKILLS

Programming Languages

- Python, R

Languages

- Native: Chinese
- Fluent: English