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Ming Gao

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Research Interests

Graphical model, structure learning, causal inference, high-dimensional statistics

Education

Ph.D. in Econometrics and Statistics, 2021.09 – now
Booth School of Business, University of Chicago, Chicago, IL, USA
Advisor: Bryon Aragam

M.Sc. in Statistics, 2019.09 – 2021.04
Department of Statistics, University of Chicago, Chicago, IL, USA
Advisor: Jingshu Wang

B.Sc. in Statistics, 2015.09 – 2019.06
School of Statistics, Renmin University of China, Beijing, China

Publications

6. Yuxuan Guo, **Ming Gao**, and Xiaoling Lu. Multivariate change point detection for heterogeneous series. *Neurocomputing*, 2022.

5. **Ming Gao**, Wai Ming Tai, and Bryon Aragam. Optimal estimation of gaussian dag models. In *International Conference on Artificial Intelligence and Statistics*PMLR, 2022.

4. **Ming Gao** and Bryon Aragam. Efficient bayesian network structure learning via local markov boundary search. *Advances in Neural Information Processing Systems*, 34:4301–4313, 2021.

3. Goutham Rajendran, Bohdan Kivva, **Ming Gao**, and Bryon Aragam. Structure learning in polynomial time: Greedy algorithms, bregman information, and exponential families. *Advances in Neural Information Processing Systems*, 34:18660–18672, 2021.

2. Jin-Hong Du, **Ming Gao**, and Jingshu Wang. Model-based trajectory inference for single-cell rna sequencing using deep learning with a mixture prior. *bioRxiv*, 2020.

1. **Ming Gao**, Yi Ding, and Bryon Aragam. A polynomial-time algorithm for learning nonparametric causal graphs. *Advances in Neural Information Processing Systems*, 33:11599–11611, 2020.

Professional Service

Reviewer

- **Conferences**: NeurIPS 2022, AISTATS 2022

Internship Experience

Data Analyst Intern, 2018.12 – 2019.05

Department of Dynamic Drilling Computing Engineering, Schlumberger, Beijing, China

Project: Apply convolutional neural network on drilling trajectory to retrieve the potential geometry patterns contributing to better Torque & Drag evaluation.

Data Analyst Intern, 2018.07 – 2018.08

Department of Science and Technology, Industrial Bank of China, Shanghai, China

Project: Apply random forest to identify load fraud or overdue.

Quantitative Research Intern, 2018.01 – 2018.03

Lion Fund Management, Beijing, China

Project: Assist in the development of stock-trading strategies, processing, validity recognition, selection and synthesis of the factors in multi-factor models.