MINGZHANG YIN

465 West 125th Street Apt 3 ⋄ New York, NY 10027

(206) · 519 · 8518 ⋄ mingzhang.yin@columbia.edu ⋄ https://mingzhang-yin.github.io

EDUCATION

Ph.D. Statistics, The University of Texas at Austin   2020

Thesis: Variational Methods with Dependence Structure
Supervisor: Dr. Mingyuan Zhou

B.Sc. Mathematics and Applied Mathematics, Fudan University   2015

PROFESSIONAL EXPERIENCE

Postdoctoral Fellow, Data Science Institute, Columbia University   July 2020–present
Supervisor: David Blei and Simon Tavaré

Research Intern, Google Brain, Mountain View, CA   May 2019–August 2019
Supervisor: George Tucker and Chelsea Finn

Research Intern, Quantlab Financial LLC, Houston, TX   June 2017–August 2017
Supervisor: Joe Masters

Data Science Intern, HP Lab, Austin, TX   June 2016–August 2016
Supervisor: Lakshminarayan Choudur

PUBLICATIONS

(* represents equal contribution)

- **Mingzhang Yin**, YX Rachel Wang and Purnamrita Sarkar. "A Theoretical Case Study of Structured Variational Inference for Community Detection." **International Conference on Artificial Intelligence and Statistics (AISTATS), 2020.**

- Yuguang Yue, Yunhao Tang, **Mingzhang Yin** and Mingyuan Zhou. "Discrete Action On-Policy Learning with Action-Value Critic." **International Conference on Artificial Intelligence and Statistics (AISTATS), 2020.**

- Siamak Zamani Dadaneh, Shahin Boluki, **Mingzhang Yin**, Mingyuan Zhou and Xiaoning Qian. "Pairwise Supervised Hashing with Bernoulli Variational Auto-Encoder and Self-Control Gradient Estimator." **The Conference on Uncertainty in Artificial Intelligence (UAI), 2020**

- **Mingzhang Yin**, George Tucker, Mingyuan Zhou, Sergey Levine and Chelsea Finn. "Meta-Learning without Memorization." **International Conference on Learning Representations (ICLR), Top 5%, Spotlight, 2020.**

- **Mingzhang Yin***, Yuguang Yue* and Mingyuan Zhou. "ARSM: Augment-REINFORCE-Swap-Merge Estimator for Gradient Backpropagation Through Categorical Variables." **International Conference on Machine Learning (ICML) 2019.**

- **Mingzhang Yin** and Mingyuan Zhou. "ARM: Augment-REINFORCE-Merge Gradient for Stochastic Binary Networks." **International Conference on Learning Representations (ICLR), Top 10%, 2019.**

- **Mingzhang Yin** and Mingyuan Zhou. "Semi-implicit Variational Inference." **International Conference on Machine Learning (ICML), Long Talk, 2018.**

- **Mingzhang Yin** and Mingyuan Zhou. "Semi-Implicit Generative Model." **Bayesian Deep Learning Workshop, NeurIPS 2018.**

- Bowei Yan, **Mingzhang Yin** and Purnamrita Sarkar. "Convergence of Gradient EM for Multi-component Gaussian Mixture." **Conference on Neural Information Processing Systems (NeurIPS) 2017.**

PAPERS IN PREPARATION

- **Mingzhang Yin**, Nhat Ho, Bowei Yan, Xiaoning Qian, Mingyuan Zhou. "Probabilistic Best Subset Selection via Gradient-Based Optimization" **arXiv, 2020.**

- **Mingzhang Yin**, Mingyuan Zhou. "Information Theoretic Semi-Implicit Inference and Learning" **Plan to submit to JMLR, 2019.**

PRESENTATIONS

"Semi-implicit Variational Inference as Accurate Black-box Posterior Inference", *International Conference on Machine Learning*, Stockholm, July, 2018.

"Efficient Discrete Optimization with Correlated Samples", *International Conference on Machine Learning*, Long Beach, June, 2019.

"A Pitfall in the Generalization of Meta-Learning and how we fix it", *Statistical Seminar*, University of Texas at Austin, Austin, Texas, September, 2019.

"Semi-Implicit Variational Inference" *AI/ML Seminar Series*, Center for Machine Learning and Intelligent Systems, University of California, Irvine, February, 2020.

ACADEMIC SERVICE

Conference reviewing: NeurIPS 2017–2020; ICML 2019, 2020; ICLR 2018–2020; AISTATS 2018; UAI 2019, 2020; ACML 2018; AAAI 2018

Journal reviewing: IEEE TPAMI; JMLR; IEEE Trans. Signal Process

Member: American Statistical Association (ASA), 2015–present; International Society for Bayesian Analysis (ISBA), 2019–present

TEACHING AND ADVISING EXPERIENCE

Teaching Assistant, Introduction to Probability and Statistics	Fall 2017, Fall 2019
Teaching Assistant, Bayesian Statistical Methods	Spring 2016, Spring 2017
Teaching Assistant, Design and Analysis of Experiments	Spring 2017
Teaching Assistant, Linear Algebra	Fall 2018
Undergraduate Mentorship, Directed Reading Program, UT Math Department	Fall 2018, Spring 2019

SELECTED AWARDS AND HONORS

The Graduate Continuing Bruton Fellowship	2018, 2019
Travel Award (NeurIPS, ICML, ICLR, MetaLearn Workshop)	2017- 2019
Outstanding Student Scholarship	2011-2015
Leo Tang Hsiang-chien Scholarship	April 2013
National 1st Prize in China Mathematics Competition in Modeling	October 2013
1st Prize in China Mathematical Olympiad	2011

SKILLS

Language	Native in Chinese; Fluent in English
Programming	Fluent in Python, Matlab, R, LATEX, Tensorflow; Familiar with C, C++, Pytorch