MINGZHANG YIN

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EDUCATION

The University of Texas at Austin, Ph.D. Candidate in Statistics *May 2019*

- **Supervisor**: Dr. Mingyuan Zhou GPA: 3.98/4.00
- **Relevant Cousework**: Statistical Modeling, Probability Theory, Bayesian Statistical Methods, Monte Carlo Methods in Statistics, Machine Learning for Large Scale Data, Optimization Cumulative GPA: 4.00/4.00
- **Reasearch Interest**: Approximate Bayesian Inference(Variational Inference, MCMC, Partical filtering etc.), Bayesian Deep Learning, Optimization, Bayesian Nonparametric

Fudan University, Bachelor of Science *June 2015*
Mathematics and Applied Mathematics Major GPA: 3.58/4.00

North Carolina State University, Statistics *January 2014*
Exchange student,UNC Exchange Program Cumulative GPA: 4.00/4.00

RESEARCH

Semi-implicit Variational Inference

- Expand variational family with a hierarchical structure combined with explicit layer and implicit layer;
- Achieved accurate uncertainty estimation in Variational Inference. Can serve as black-box inference scheme for unknown posterior. Accepted by ICML 2018.

ARM gradient for discrete latent variables

- Design unbiased, low variance gradient methods to infer discrete latent variables in variational inference and reinforcement learning. Submitted to NIPS 2018.

Semi-implicit Generative Models

- Applying a hierarchical generative model mixed with explicit and implicit layers. Training semi-implicit generative model(SIGMO) on MLE scheme can maintain high stability and mode capturing ability. Training SIGMO adversarially can reduce mode collapse problem notoriously in GAN. Submitted to NIPS 2018.

Convergence of Gradient EM for Multi-component Gaussian Mixture

- Theoretically achieved near optimum local convergence region and convergence rate for gradient EM on general Gaussian Mixture model.
- Analysis includes both population and finite sample cases. Accepted by NIPS 2017.

INTERNSHIP

Research Intern in Quantlab Financial LLC June 2017-August 2017

- Build passiave trading strategy model and submitted to phase one test.

Data Science Intern in Hewlett Packard Enterprise, Big Data Platform June 2016-August 2016

- Build survival analysis model to predict the close date of sales pipeline.
- Ensemble logistic regression, KNN and LDA to predict sales closing state.
- Apply Topological data analysis to track, predict and classify web click streams. Patent Application #710224784.

Research Intern at China Academy of Science, Computational Biology 2014-2015

- Building epithelial mesenchymal transition(EMT) type 2 map in CellDesigner with Dr.Christine Nardini

HONORS AND AWARDS

Travel Award, NIPS 2017
Capital One modeling competition, rank 2nd place Nation-wide April 2016
Best In Class Intern Prize, Hewlett Packard Enterprise July 2016
Top-notch Student Honor (Subuqing Class) January 2014-July 2015
National 1st Prize in China Mathematics Competition in Modeling October 2013
1st Prize in Eastern China Mathematical Modeling Competition July 2013
Leo Tang Hsiang-chien Scholarship April 2013

SKILLS

Language	Native in Chinese; Fluent in English
Computer Languages	Fluent in R, Python, C++, Matlab, MySQL, LaTeX
Tools	Tensorflow, Pytorch, Parallel computing