

EDUCATION

PEKING UNIVERSITY 09/2018–06/2022

School of Mathematical Sciences

- Undergraduate, Major in Statistics and Probability, Overall GPA: **3.79/4**; Major GPA:**3.80/4**
- Programming & Software: C, C++, Python, MATLAB, R; Latex
- English Proficiency: TOEFL 110, GRE Verbal 157, Quantitative 170, Writing 3.5
- Research interests: Statistical Learning, Deep Learning Theory, Causal Inference, High-dimensional statistics.

Main Course and Score

Mathematical Analysis II/ III	3.97/4	Measure Theory	3.98/4
Advanced Algebra I	3.99/4	Mathematical Statistics	3.93/4
Abstract Algebra	3.99/4	Applied Stochastic Processes	3.93/4
Probability Theory	4/4	Statistical Learning	3.93/4
High-Dimensional Probability	4/4	Bayesian Theory and Computation	3.91/4

Awards and Honors

Academic Excellence Award, Peking University	11/2020&11/2021
Annual Scholarship, Peking University	11/2020&11/2021
3 rd Prize in Chinese Mathematical Olympiad	01/2018
2 nd Prize in Chinese Mathematics Competition	11/2019
University of Illinois at Urbana-Champaign	08/2022–present

Department of Computer Science

- Ph.D., Major in Computer Science, Overall GPA (till now): 3.96/4
- Programming & Software: C, C++, Python, Pytorch, MATLAB, R; Latex
- Research interests: Statistical Learning, Deep Learning Theory, Trustworthy Machine Learning, High-dimensional statistics.

Main Course and Score

Deep Learning Theory	4/4	Trustworthy ML	4/4
Adv Topics in Sec, Priv and ML	4/4	Adv Topics in NLP	4/4

RESEARCH EXPERIENCE

Studying the Topic about statistics and theoretical machine learning 06/2020-06/2022

Independent Research, Supervised by Prof. Zhihua Zhang, School of Mathematical Sciences, Peking University

Understanding learning/generalization landscape for GD on multi-task/single-task learning 07/2021-08/2023

Independent Research, Supervised by Prof. Quanquan Gu, Department of Computer Science, UCLA

Generalizing matrix completion methods for row-wise independent data based on GD algorithm 04/2021-09/2022

Independent Research, Supervised by Prof. Junwei Lu, Department of Biostatistics, Harvard T.H. Chan School of Public Health, Harvard University

Self-supervised learning for Hidden Markov Model 07/2021-09/2022

Group Research, Supervised by Prof. Rong Ge, Department of Computer Science, Duke University

Understanding and explaining the edge-of-stability phenomenon of neural networks 07/2021-09/2022

Group Research, Supervised by Prof. Rong Ge, Department of Computer Science, Duke University

Phenomena in benign overfitting and interpolation under different models 08/2022-08/2023

Independent Research, Supervised by Prof. Matus Telgarsky, Department of Computer Science, UIUC

Trustworthy Machine Learning 02/2023-08/2023

Independent Research, Supervised by Prof. Han Zhao, Department of Computer Science, UIUC

Geometric Structures and Others in Machine Learning 09/2023-present

Independent Research, Supervised by Prof. Arindam Banerjee, Department of Computer Science, UIUC

Publications

- Differentially Private Post-Processing for Fair Regression
- Loss Gradient Gaussian Width based Generalization and Optimization Guarantees
- Sketching for Distributed Deep Learning: A Sharper Analysis (in coming)
- Sketched Adaptive Federated Learning (in coming)
- On the Power of Multitask Representation Learning with Gradient Descent (in coming)