

# Mingyue Xu

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Google Scholar

## EDUCATION

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### Purdue University

*Ph.D. Student in Computer Science*

- Advisor: Steve Hanneke

West Lafayette, IN

*Aug 2023 – present*

### Columbia University

*M.S. in Data Science*

- Advisor: Daniel Hsu
- GPA: 3.73/4.00

New York, NY

*Sep 2021 – Dec 2022*

### Shanghai Jiao Tong University

*B.S. in Mathematics*

- GPA: 3.62/4.00

Shanghai, China

*Sep 2017 – Jun 2021*

## RESEARCH INTERESTS

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Statistical Learning Theory, Algorithmic Statistics, Deep Learning, Artificial Intelligence

## PUBLICATIONS & PRE-PRINTS/UNDER REVIEW

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( $\alpha$ - $\beta$ ) DENOTES ALPHABETICAL ORDERING, \* DENOTES EQUAL CONTRIBUTION.

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S. Hanneke, H. Wang, **M. Xu** ( $\alpha$ - $\beta$ ). “Optimal Learning under Tsybakov Noise”. Submitted to the 67th IEEE Symposium on Foundations of Computer Science (FOCS 2026).

S. Hanneke and **M. Xu** ( $\alpha$ - $\beta$ ). “When More Data Doesn’t Help: Limits of Adaptation in Multitask Learning”. The Forty-third International Conference on Machine Learning (ICML 2026).

**M. Xu**, G. Vardi, I. Safran. “To Grok Grokking: Provable Grokking in Ridge Regression”. The Forty-third International Conference on Machine Learning (ICML 2026), *Spotlight*.

S. Hanneke and **M. Xu** ( $\alpha$ - $\beta$ ). “Universal Rates of ERM for Agnostic Learning”. The Thirty-eighth Annual Conference on Learning Theory (COLT 2025).

G. Yuan\*, **M. Xu**\*, S. Kpotufe, D. Hsu. “Efficient Estimation of the Central Mean Subspace via Smoothed Gradient Outer Products”. SIAM Journal on Mathematics of Data Science (SIMODS 2025).

S. Hanneke and **M. Xu** ( $\alpha$ - $\beta$ ). “Universal Rates of Empirical Risk Minimization”. The Thirty-eighth Annual Conference on Neural Information Processing Systems (NeurIPS 2024).

J. Tu, W. Liu, X. Mao, **M. Xu**. “Distributed Semi-supervised Sparse Statistical Inference”. IEEE Transactions on Information Theory (TIT 2023).

## WORK EXPERIENCE

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### Machine Learning Research Intern

*Qutronix Co., Ltd.*

Nov 2020 – Jun 2021

*Shanghai, China*

## TEACHING EXPERIENCE

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**CS182 Foundations of Computer Science**

Spring 2025, Spring 2026

*Teaching Assistant*

*Purdue University*

**CS251 Data Structures and Algorithms**

Fall 2023, Spring 2024, Fall 2024

*Teaching Assistant*

*Purdue University*

**CS381 Introduction to the Analysis of Algorithms**

Fall 2025

*Teaching Assistant*

*Purdue University*