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#### Research Interest

## Machine Learning

Trustworthy Machine Learning, Data-Centric AI, Statistical Learning Theory, Manifold and Graph Learning

## Theoretical Computer Science

Fast Graph Algorithm, Approximation Algorithm, Learning Theory

#### EDUCATION

## University of Illinois Urbana-Champaign

Ph.D. Candidate in Information Science, School of Information Science

o Advisor: Jiaqi Ma

#### University of Illinois Urbana-Champaign

M.S. in Applied Mathematics, College of Liberal Arts & Sciences

o Concentration: Optimization and Algorithms

## University of Michigan

B.S. in Computer Science with Summa Cum Laude, College of Engineering

o Minor: Mathematics, College of Literature, Science, and the Arts

## Shanghai Jiao Tong University

B.E. in Electrical and Computer Engineering, UM-SJTU Joint Institute

o Minor: Computer Science, UM-SJTU Joint Institute

Illinois

Illinois

Aug. 2023-Aug. 2025

Aug. 2023-Present

Michigan

Aug. 2021-May 2023

Shanghai, China

Aug. 2019-Aug. 2023

# RESEARCH AND INDUSTRY EXPERIENCE

Deep Learning Research, Susquehanna International Group

Sugiyama Laboratory, National Institute of Informatics

Machine Learning Ph.D. Intern

Alignment Science Team, Anthropic

AI Safety Research Fellows

AWS AI Lab, Amazon

Applied Scientist Intern

Research Intern

o Advisor: Mahito Sugiyama

SURE Program, University of Michigan

Undergraduate Researcher

o Advisor: Wei Hu

Pennsylvania

(Incoming) May 2026-Aug. 2026

San Francisco

(Incoming) Nov. 2025-May. 2026

New York

May 2025-Aug. 2025

Tokyo, Japan

May 2024-Aug. 2024

Michigan

May 2022-Apr. 2023

# PEER-REVIEWED CONFERENCE PUBLICATIONS

(\* denotes equal contribution)

- [C1] Pingbang Hu, Joseph Melkonian, Weijing Tang, Han Zhao, Jiaqi W. Ma, "GRASS: Scalable Influence Function with Sparse Gradient Compression". In Proceedings of the 39th Advances in Neural Information Processing Systems (NeurIPS 2025)
- [C2] Yiwen Tu\*, Pingbang Hu\*, Jiaqi W. Ma, "A Reliable Cryptographic Framework for Empirical Machine Unlearning Evaluation". In Proceedings of the 39th Advances in Neural Information Processing Systems (NeurIPS 2025)
- [C3] Xinhe Wang, Pingbang Hu, Junwei Deng, Jiaqi W. Ma, "Adversarial Attacks on Data Attribution". In Proceedings of the 13th International Conference on Learning Representations (ICLR 2025)
- [C4] Yuzheng Hu, Pingbang Hu, Han Zhao, Jiaqi W. Ma, "Most Influential Subset Selection: Challenges, Promises, and Beyond". In Proceedings of the 38th Advances in Neural Information Processing Systems (NeurIPS 2024)
- [C5] Junwei Deng\*, Ting-Wei Li\*, Shiyuan Zhang, Yijun Pan, Hao Huang, Xinhe Wang, Pingbang Hu, Xingjian Zhang, Jiaqi W. Ma, "dattri: A Library for Efficient Data Attribution". In Proceedings of the 38th Advances in Neural Information Processing Systems Datasets and Benchmarks Track (NeurIPS 2024) (Spotlight)

- [P1] Junwei Deng\*, Yuzheng Hu\*, Pingbang Hu\*, Ting-Wei Li\*, Shixuan Liu\*, et al., "A Survey of Data Attribution: Methods, Applications, and Evaluation in the Era of Generative AI". In submission
- [P2] Pingbang Hu, Mahito Sugiyama, "Pseudo-Non-Linear Data Augmentation via Energy Minimization". In submission 🔁
- [T1] Pingbang Hu, "Travel the Same Path: A Novel TSP Solving Strategy". Technical Report

## TEACHING EXPERIENCE

#### Graduate Teaching Assistant, University of Illinois Urbana-Champaign

Illinois

Hold discussion and office hours weekly, design assignments and exam problems, grade and guide projects.

• Network Analysis: A graduate-level course on the M.S. IS track.

Spring 2025

#### Instructional Aide, University of Michigan

Michigan

Hold discussion and office hours weekly, design assignments and exam problems, grade and guide projects. • Introduction to Cryptography: An upper-level course on the main undergraduate CS track.

 $Winter\ 2023$ 

• Randomness and Computation: A graduate-level course on the M.S. CS theory track.

Fall 2022

#### Teaching Assistant, Shanghai Jiao Tong University

Shanghai, China

Hold discussion and office hours weekly, design and grade assignments and exams.

• Honor Mathematics III: An undergraduate-level course on the main B.Eng. ECE track.

Summer 2021

\* Competition: Hold the 1st UM-SJTU JIntegration Bee competition.

• Honor Mathematics II: An undergraduate-level course on the main B.Eng. ECE track.

Fall 2020

## Honors and Awards

#### Graduate Conference Travel Award

Illinois

Graduate College's Competition at University of Illinois Urbana-Champaign

Nov. 2024

#### NeurIPS 2024 Scholar Award

British Columbia, Canada

Financial Aid Award for NeurIPS 2024

Bao Gang Excellent Scholarship

Tokyo, Japan

Excellent Internship Award Excellent (best) internship evaluation at National Institute of Informatics

Aug. 2024

Oct. 2024

Hong Kong, Macao and Taiwan Overseas Chinese Student Scholarship

Shanghai, China

First Prize (Ranked #2) among all HK, MC, and TW students at Shanghai Jiao Tong University

Oct. 2021

Undergraduate Excellent Scholarship

Nov. 2020

Third Prize among all students at UM-SJTU Joint Institute

Shanghai, China

Shanghai, China

Second Prize (Ranked #3) among all Taiwan students at Shanghai Jiao Tong University

June 2020

Hong Kong, Macao and Taiwan Overseas Chinese Student Scholarship

Shanghai, China

First Prize (Ranked #1) among all HK, MC, and TW students at UM-SJTU Joint Institute

Dec. 2019

#### Professional Service

#### Program Committee

AAAI 2025

#### Conference Reviewer

ICLR 2026, NeurIPS 2025, ICLR 2025, ICML 2024, IEEE BigData 2023