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## Research Interest

## Machine Learning

Explainable Machine Learning, Trustworthy Machine Learning, Graph Learning, Statistical Learning Theory

#### Theoretical Computer Science

Fast Graph Algorithm, Approximation Algorithm, Hardness of Approximation, Learning Theory

#### EDUCATION

#### University of Illinois Urbana-Champaign

Illinois

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

Aug. 2023-Present

o Advisor: Jiaqi Ma

o Minor: Statistics, College of Liberal Arts & Sciences

#### University of Michigan

Michigan

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

Aug. 2021-May 2023

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

## National Yang Ming Chiao Tung University

Hsinchu, Taiwan

Visiting Scholar

Jan. 2020-Jul. 2020

Shanghai Jiao Tong University B.Eng. in Electrical and Computer Engineering, UM-SJTU Joint Institute

Shanghai, China Aug. 2019-Aug. 2023

o Minor: Computer Science, UM-SJTU Joint Institute

#### Research and Industry Experience

#### Sugiyama Laboratory, National Institute of Informatics

Tokyo, Japan

Research Intern

May 2024-Aug. 2024

o Advisor: Mahito Sugiyama

#### Theory of Computation Laboratory, University of Michigan

Michigan

Undergraduate Researcher

Mar. 2022-Dec. 2023

o Advisor: Thatchaphol Saranurak

## SURE Program, University of Michigan

Michigan

Undergraduate Researcher

May 2022-Apr. 2023

o Advisor: Wei Hu

#### Michigan

FORESEER Research Group, University of Michigan Undergraduate Research Assistant

Dec. 2021-Jan. 2023

o Advisor: Jiaqi Ma

Shanghai, China

Backend Developer

Chief Noob

Oct. 2020-June 2021

(\* denotes equal contribution)

## PEER-REVIEWED CONFERENCE PUBLICATIONS

- [C1] Xinhe Wang, Pingbang Hu, Junwei Deng, Jiaqi Ma, "Adversarial Attacks on Data Attribution". In Proceedings of the 13th International Conference on Learning Representations (ICLR 2025)
- [C2] Yuzheng Hu, Pingbang Hu, Han Zhao, Jiaqi Ma, "Most Influential Subset Selection: Challenges, Promises, and Beyond". In Proceedings of the 38th Advances in Neural Information Processing Systems (NeurIPS 2024) (25.8% accepted rate)
- [C3] Junwei Deng\*, Ting-Wei Li\*, Shiyuan Zhang, Yijun Pan, Hao Huang, Xinhe Wang, Pingbang Hu, Xingjian Zhang, Jiaqi 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)

#### Pre-prints and Technical Reports

(\* denotes equal contribution)

- [P1] Pingbang Hu, Mahito Sugiyama, "Pseudo-Non-Linear Data Augmentation via Energy Minimization". In submission 🔁
- [P2] Yiwen Tu\*, Pingbang Hu\*, Jiaqi Ma, "Towards Reliable Empirical Machine Unlearning Evaluation: A Game-Theoretic View". 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  Hold discussion and office hour weekly, design assignment and exam problems, grade and guide pro	Illinois
• Network Analysis: A graduate-level course on the M.S. IS track.	Spring 2025
Instructional Aide, University of Michigan  Hold discussion and office hour weekly, design assignment and exam problems, grade and guide property.	${\bf Michigan}$
$\circ$ Introduction to Cryptography: An upper-level course on the main undergraduate CS tra	ack. Winter 2023
$\circ$ Randomness and Computation: A graduate-level course on the M.S. CS theory track.	Fall 2022
Teaching Assistant, Shanghai Jiao Tong University  Hold discussion and office hour weekly, design and grade assignments and exams.	Shanghai, China
• Honor Mathematics III: An undergraduate-level course on the main B.Eng. ECE track.	Summer 2021
* Competition: Hold the 1 <sup>st</sup> UM-SJTU JIntegration Bee competition.	
$\circ$ Honor Mathematics II: An undergraduate-level course on the main B.Eng. ECE track.	Fall 2020
Honors and Awards	
HONORS AND AWARDS  Graduate Conference Travel Award  Graduate College's Competition at University of Illinois Urbana-Champaign	Illinois Nov. 2024
Graduate Conference Travel Award Graduate College's Competition at University of Illinois Urbana-Champaign	
Graduate Conference Travel Award  Graduate College's Competition at University of Illinois Urbana-Champaign  NeurIPS 2024 Scholar Award	Nov. 2024 British Columbia, Canada
Graduate Conference Travel Award Graduate College's Competition at University of Illinois Urbana-Champaign NeurIPS 2024 Scholar Award Financial Aid Award for NeurIPS 2024 Excellent Internship Award	Nov. 2024 British Columbia, Canada Oct. 2024 Tokyo, Japan

Shanghai, China

Shanghai, China

 $June\ 2020$ 

Dec. 2019

# PROFESSIONAL SERVICE

# Program Committee

AAAI 2025

# Conference Reviewer

ICML 2024, IEEE BigData 2023, ICLR 2025

Bao Gang Excellent Scholarship

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

Hong Kong, Macao and Taiwan Overseas Chinese Student Scholarship

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