

Pingbang Hu

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, Online Algorithm, 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

\mathbf{AWS}	ΑT	Lab.	Amazon
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New York

 $Applied\ Scientist\ Intern$

May 2025-Aug. 2025

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

FORESEER Research Group, University of Michigan

Michigan

Undergraduate Research Assistant

Dec. 2021-Jan. 2023

o **Advisor**: Jiaqi Ma

Shanghai, China

Chief Noob

Backend Developer

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)
- [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)

- [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

Illinois

Hold discussion and office hour weekly, design assignment 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 hour weekly, design assignment 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 hour weekly, design and grade assignments and exams.

 $\circ\,$ 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

Oct. 2024 Tokyo, Japan

Excellent Internship Award

Excellent (best) internship evaluation at National Institute of Informatics

Aug. 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

Shanghai, China Nov. 2020

Third Prize among all students at UM-SJTU Joint Institute

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Bao Gang Excellent Scholarship

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

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

Shanghai, China Dec. 2019

Professional Service

Program Committee

' AAAI 2025

Conference Reviewer

ICML 2024, IEEE BigData 2023, ICLR 2025