

## RESEARCH INTEREST

### Machine Learning

- *Explainable Machine Learning, Trustworthy Machine Learning, Algorithmic Fairness, Graph Learning, Statistical Learning Theory*

### Theoretical Computer Science

- *Fast Graph Algorithm, Approximation Algorithm, Computational Complexity, Hardness of Approximation*

## EDUCATION

### University of Illinois Urbana-Champaign

Illinois

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

Aug. 2023–Present

- **Advisor:** Jiaqi Ma

### University of Michigan

Michigan

- *B.Sc. in Computer Science, College of Engineering*

Aug. 2021–May 2023

- Graduate with *Summa Cum Laude*

- **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

Shanghai, China

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

Aug. 2019–Aug. 2023

- **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

- **Advisor:** Mahito Sugiyama

### Theory of Computation Laboratory, University of Michigan

Michigan

- *Undergraduate Researcher*

Mar. 2022–Dec. 2023

- **Advisor:** Thatchaphol Saranurak

### SURE Program, University of Michigan

Michigan

- *Undergraduate Researcher*

May 2022–Apr. 2023

- **Advisor:** Wei Hu

### FORESEER Research Group, University of Michigan

Michigan

- *Undergraduate Research Assistant*

Dec. 2021–Jan. 2023

- **Advisor:** Jiaqi Ma

### Chief Noob

Shanghai, China

- *Backend Developer*

Oct. 2020–June 2021




## PEER-REVIEWED CONFERENCE PUBLICATIONS

(\* denotes equal contribution)

- [C1] 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) 
- [C2] 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] Xinhe Wang, **Pingbang Hu**, Junwei Deng, Jiaqi Ma, “Adversarial Attacks on Data Attribution”. *In submission* 
- [P3] 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

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|---|------------------------|
| <b>Instructional Aide, University of Michigan</b>   | <b>Michigan</b>        |
| ▪ <i>Hold discussion and office hour weekly, design assignment and exam problems, grade and guide projects.</i> |                        |
| ◦ <b>Introduction to Cryptography</b> : An upper-level course on the main undergraduate CS track.               | <i>Winter 2023</i>     |
| ◦ <b>Randomness and Computation</b> : A graduate-level course on the M.S. CS theory track.                      | <i>Fall 2022</i>       |
| <b>Teaching Assistant, Shanghai Jiao Tong University</b>  | <b>Shanghai, China</b> |
| ▪ <i>Hold discussion and office hour weekly, design and grade assignments and exams.</i>                        |                        |
| ◦ <b>Honor Mathematics III</b> : An undergraduate-level course on the main B.Eng. ECE track.                    | <i>Summer 2021</i>     |
| * <b>Competition</b> : Hold the 1 <sup>st</sup> UM-SJTU <b>JIntegration Bee competition</b> .                   |                        |
| ◦ <b>Honor Mathematics II</b> : An undergraduate-level course on the main B.Eng. ECE track.                     | <i>Fall 2020</i>       |

## HONORS AND AWARDS

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| <b>Excellent Internship Evaluation</b>   | <b>Tokyo, Japan</b>    |
| ▪ <i>Best internship evaluation result in National Institute of Informatics</i>                    | <i>Aug. 2024</i>       |
| <b>Hong Kong, Macao and Taiwan Overseas Chinese Student Scholarship</b>                            | <b>Shanghai, China</b> |
| ▪ <i>First Prize (Ranked #2) among all HK, MC and TW students in Shanghai Jiao Tong University</i> | <i>Oct. 2021</i>       |
| <b>Undergraduate Excellent Scholarship</b>   | <b>Shanghai, China</b> |
| ▪ <i>Third Prize among all students in UM-SJTU Joint Institute</i>                                 | <i>Nov. 2020</i>       |
| <b>Bao Gang Excellent Scholarship</b>  | <b>Shanghai, China</b> |
| ▪ <i>Second Prize (Ranked #3) among all Taiwan students in Shanghai Jiao Tong University</i>       | <i>June 2020</i>       |
| <b>Hong Kong, Macao and Taiwan Overseas Chinese Student Scholarship</b>                            | <b>Shanghai, China</b> |
| ▪ <i>First Prize (Ranked #1) among all HK, MC and TW students in UM-SJTU Joint Institute</i>       | <i>Dec. 2019</i>       |

## PROFESSIONAL SERVICE

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- Conference Reviewer**
- *ICML 2024, IEEE BigData 2023, ICLR 2025, AAAI 2025*