

Pingbang Hu



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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 Illinois
 - Ph.D. Candidate in Information Science, School of Information Science Aug. 2023–Present
 - Advisor: Jiaqi Ma
- University of Illinois Urbana-Champaign Illinois
 - M.S. in Applied Mathematics, College of Liberal Arts & Sciences Aug. 2023–Aug. 2025
 - Concentration: Optimization and Algorithms
- University of Michigan Michigan
 - B.S. in Computer Science with Summa Cum Laude, College of Engineering Aug. 2021–May 2023
 - Minor: Mathematics, College of Literature, Science, and the Arts
- Shanghai Jiao Tong University Shanghai, China
 - B.E. in Electrical and Computer Engineering, UM-SJTU Joint Institute Aug. 2019–Aug. 2023
 - Minor: Computer Science, UM-SJTU Joint Institute




RESEARCH AND INDUSTRY EXPERIENCE

- Deep Learning Research, Susquehanna International Group Pennsylvania
 - Machine Learning Ph.D. Intern (Incoming) May 2026–Aug. 2026
- Alignment Science Team, Anthropic San Francisco
 - AI Safety Research Fellows (Incoming) Nov. 2025–May. 2026
- AWS AI Lab, Amazon New York
 - Applied Scientist Intern May 2025–Aug. 2025
- Sugiyama Laboratory, National Institute of Informatics Tokyo, Japan
 - Research Intern May 2024–Aug. 2024
 - Advisor: Mahito Sugiyama
- SURE Program, University of Michigan Michigan
 - Undergraduate Researcher May 2022–Apr. 2023
 - Advisor: Wei Hu

PEER-REVIEWED CONFERENCE PUBLICATIONS

(* denotes equal contribution)

- [C1] Pingbang Hu, Joseph Melkonian, Weijing Tang, Han Zhao, Jiaqi W. Ma, “GRASS: Scalable Data Attribution with Gradient Sparsification and Sparse Projection”. 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

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| Graduate Teaching Assistant, University of Illinois Urbana-Champaign | Illinois |
| <ul style="list-style-type: none"> Hold discussion and office hours weekly, design assignments and exam problems, grade and guide projects. <ul style="list-style-type: none"> Network Analysis: A graduate-level course on the M.S. IS track. | Spring 2025 |
| Instructional Aide, University of Michigan | Michigan |
| <ul style="list-style-type: none"> Hold discussion and office hours weekly, design assignments and exam problems, grade and guide projects. <ul style="list-style-type: none"> Introduction to Cryptography: An upper-level course on the main undergraduate CS track. Randomness and Computation: A graduate-level course on the M.S. CS theory track. | Winter 2023
Fall 2022 |
| Teaching Assistant, Shanghai Jiao Tong University | Shanghai, China |
| <ul style="list-style-type: none"> Hold discussion and office hours weekly, design and grade assignments and exams. <ul style="list-style-type: none"> Honor Mathematics III: An undergraduate-level course on the main B.Eng. ECE track. * Competition: Hold the 1st UM-SJTU JIntegration Bee competition. Honor Mathematics II: An undergraduate-level course on the main B.Eng. ECE track. | Summer 2021
Fall 2020 |

HONORS AND AWARDS

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| 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 |
| Excellent Internship Award | Tokyo, Japan |
| 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 |
| Third Prize among all students at UM-SJTU Joint Institute | Nov. 2020 |
| 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 | 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