

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 – Present

- **Advisor:** Thatchaphol Saranurak 


- Design the first almost linear time algorithm on finding minimal balanced separator.

SURE Program , University of Michigan

Michigan

- *Undergraduate Researcher*

May 2022 – Apr. 2023

- **Advisor:** Wei Hu 


- Theoretical analysis on intrinsic dimension under isoperimetry assumptions.

FORESEER Research Group , University of Michigan

Michigan

- *Undergraduate Research Assistant*

Dec. 2021 – Jan. 2023

- **Advisor:** Jiaqi Ma 

- Prove the asymptotic separability of a 1-layer GCN on node classification tasks.

Chief Noob

Shanghai, China


- *Backend Developer*

Oct. 2020 – Jun. 2021

PRE-PRINTS AND TECHNICAL REPORTS

(* denotes equal contribution)

[P1] **Pingbang Hu**, Thatchaphol Saranurak, “Finding Minimal Balanced Separators with Detection Sets”. *Manuscript*

[P2] **Pingbang Hu**, “Travel the Same Path: A Novel TSP Solving Strategy”. *Preprint* 

TEACHING EXPERIENCE

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.	
◦ Honor Mathematics III 🌟 : An undergraduate-level course on the main B.Eng. ECE track.	Summer 2021
* Competition: Hold the 1 st UM-SJTU JIntegration Bee competition 🌟 .	
◦ Honor Mathematics II 🌟 : An undergraduate-level course on the main B.Eng. ECE track.	Fall 2020

HONORS AND AWARDS

Hong Kong, Macao and Taiwan Overseas Chinese Student Scholarship	Shanghai, China
▪ First Prize (Ranked #2) among all HK, MC and TW students in Shanghai Jiao Tong University	Oct. 2021
Undergraduate Excellent Scholarship	Shanghai, China
▪ Third Prize among all students in UM-SJTU Joint Institute	Nov. 2020
Bao Gang Excellent Scholarship	Shanghai, China
▪ Second Prize (Ranked #3) among all Taiwan students in Shanghai Jiao Tong University	Jun. 2020
Hong Kong, Macao and Taiwan Overseas Chinese Student Scholarship	Shanghai, China
▪ First Prize (Ranked #1) among all HK, MC and TW students in UM-SJTU Joint Institute	Dec. 2019

PROFESSIONAL ACTIVITIES

Conference Reviewer
▪ ICML 2024, IEEE BigData 2023