Pingbang Hu

⌂ ☗ in 🐦 ⓖ

✉ pbb@illinois.edu
📱 (+1) 734 882 7750

Education

University of Illinois Urbana-Champaign — **Illinois**
Ph.D. Student in Information Science, School of Information Science — *Aug. 2023 – Present*
- **Advisor**: Jiaqi Ma ❂
- **Research Area**: Theoretical Artificial Intelligence & Theoretical Computer Science

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 Experience

Individual Research Group, 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.

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 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

- **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*