Pingbang Hu

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Degrees

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 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.Eng. in Electrical and Computer Engineering, UM-SJTU Joint Institute   *Aug. 2019 - Aug. 2023*
- ○ **Minor**: Computer Science, UM-SJTU Joint Institute

Selected Research Experience

Finding Minimal Balanced Separators with Detection Sets   Michigan
College of Engineering, University of Michigan   *Mar. 2022 - Present*
- ○ **Advisor**: Thatchaphol Saranurak ◉
- ○ The first almost linear time algorithm on finding minimal balanced separator.

Deep Learning Foundation   Michigan
SURE Program ◉ , College of Engineering, University of Michigan   *Mar. 2022 - Jan. 2023*
- ○ **Advisor**: Wei Hu ◉
- ○ Theoretical analysis on intrinsic dimension under isoperimetry assumptions.

Pre-prints and Technical Reports

(* denotes equal contribution)

[P1] **Pingbang Hu**, Thatchaphol Saranurak, "Finding Minimal Balanced Separators with Detection Sets". In *preparation*

[P2] **Pingbang Hu**, "Travel the Same Path: A Novel TSP Solving Strategy". In *arXiv preprint*

Teaching Experience

EECS475 Introduction to Cryptography ◉   Michigan
Instructional Aide, College of Engineering, University of Michigan   *Jan. 2023 - May. 2023*
- ○ An upper-level 100+ student course on the main CS track.
- ○ Hold discussion and office hour weekly, design assignment and exam problems, grade and guide projects.

EECS572 Randomness and Computation ◉   Michigan
Instructional Aide, College of Engineering, University of Michigan   *Aug. 2022 - Dec. 2022*
- ○ A graduate-level 70+ student course on the M.S. theory CS track.
- ○ Hold discussion and office hour weekly, design assignment and exam problems, grade and guide projects.

VV285 Honor Mathematics III ◉   Shanghai, China
Teaching Assistant, UM-SJTU Joint Institute, Shanghai Jiao Tong University   *Mar. 2021 - Aug. 2021*
- ○ An undergraduate-level 150+ student course on the main B.Eng. ECE track.
- ○ Hold discussion and office hour weekly, design and grade assignments and exams.
- ○ **Competition**: Hold the 1st UM-SJTU JIntegration Bee competition ◉ .

VV186 Honor Mathematics II ◉   Shanghai, China
Teaching Assistant, UM-SJTU Joint Institute, Shanghai Jiao Tong University   *Sep. 2020 - Dec. 2020*
- ○ An undergraduate-level 200+ student course on the main B.Eng. ECE track.
- ○ Hold discussion and office hour weekly, design and grade assignments and exams.

Selected 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*