Pingbang Hu A 😂 🛅 💟 🗘

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EDUCATION

University of Illinois Urbana-Champaign

Illinois

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

Aug. 2023 - Present

o Advisor: Jiaqi Ma 😵

o Research Area: Theoretical Artificial Intelligence & Theoretical Computer Science

University of Michigan

Michigan

B.Sc. in Computer Science, College of Engineering

Aug. 2021 - May 2023

o Graduate with Summa Cum Laude

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

Shanghai, China Aug. 2019 - Aug. 2023

o Minor: Computer Science, UM-SJTU Joint Institute

Research Experience

Undergraduate Researcher

Individual Research Group, University of Michigan

Michigan

• Advisor: Thatchaphol Saranurak •

Mar. 2022 - Present

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

SURE Program Q, University of Michigan

Michigan

 $Undergraduate\ Researcher$

May 2022 - Apr. 2023

o Advisor: Wei Hu 😯

• Theoretical analysis on intrinsic dimension under isoperimetry assumptions.

FORESEER Research Group ②, University of Michigan

Michigan

Undergraduate Research Assistant

Dec. 2021 - Jan. 2023

o Advisor: Jiagi 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 ③: An upper-level course on the main 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.

Summer 2021

○ Honor Mathematics III ③: An undergraduate-level course on the main B.Eng. ECE track.

Fall 2020

• Honor Mathematics II 🕲: An undergraduate-level course on the main B.Eng. ECE track.

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