Pingbang Hu

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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

Shanghai, China Aug. 2019 – Aug. 2023

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

o Minor: Computer Science, UM-SJTU Joint Institute

RESEARCH EXPERIENCE

Individual Research Group, University of Michigan

Michigan

Undergraduate Researcher

Mar. 2022 - Present

 $\circ\,$ Advisor: Thatchaphol Saranurak $\ensuremath{\mathbf{Q}}$

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

SURE Program ② , University of Michigan

Michigan

Undergraduate Researcher

May 2022 - Apr. 2023

o Advisor: Wei Hu 😯

 $\circ~$ Theoretical analysis on intrinsic dimension under isoperimetry assumptions.

FORESEER Research Group ②, University of Michigan

Michigan

 $Under graduate\ Research\ Assistant$

Dec. 2021 - Jan. 2023

o Advisor: Jiaqi Ma 😵

 $\circ\,$ 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

 $Hold\ discussion\ and\ office\ hour\ weekly,\ design\ assignment\ and\ exam\ problems,\ grade\ and\ guide\ projects.$

Winter 2023

 \circ $\mathbf{Introduction}$ to $\mathbf{Cryptography}$ \mathbf{Q} : An upper-level course on the main undergraduate CS 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 ③: An undergraduate-level course on the main B.Eng. ECE track.

• Randomness and Computation 🕲 : A graduate-level course on the M.S. CS theory track.

Summer 2021

* Competition: Hold the 1^{st} UM-SJTU JIntegration Bee competition \Im .

• 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