Weihao Zhu

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EDUCATION

University of Illinois Urbana-Champaign

Ph.D. of Computer Science

Aug. 2023 - Present

- Advised by Chandra Chekuri & Karthekeyan Chandrasekaran
- Coursework:

CS473 Algorithms CS579 Computational Complexity CS574 Randomized Algorithms CS586 Combinatorial Optimization

CS598 Topics in Graph Algorithms

CS598 Geometric Approximation Algorithms

CS450 Numerical Analysis

Shanghai Jiao Tong University

Bachelor of Computer Science

Sept. 2019 - June 2023

- Member of ACM Honors Class, which is an elite CS program for top 5% talented students
- GPA: 90.24/100, Ranking: 2/29

RESEARCH INTERESTS

- Approximation Algorithms
- Graph Algorithms
- Combinatorial Optimization
- Submodular Optimization

EXPERIENCE

Shanghai University of Finance and Economics

Undergraduate Researcher at ITCS, advised by Bundit Laekhanukit

Aug. 2021 - June 2022

Max Planck Institute for Informatics

 $Remote\ Undergraduate\ Researcher,\ co\mbox{-}advised\ by\ Danupon\ Nanongkai\ \ensuremath{\mathfrak{C}}\ Joachim\ Spoerhase$

July 2022 - Dec. 2022

Publications

Online Disjoint Spanning Trees and Polymatroid Bases

joint work with Karthekeyan Chandrasekaran, Chandra Chekuri

ICALP~2025

On the Generalized Mean Densest Subgraph Problem: Complexity and Algorithms

joint work with Karthekeyan Chandrasekaran, Chandra Chekuri, Manuel R. Torres

APPROX 2024

From Directed Steiner Tree to Polymatroid Steiner Tree in Planar Graphs

joint work with Chandra Chekuri, Rhea Jain, Shubhang Kulkarni, Da Wei Zheng

ESA 2024

Randomized Algorithm for MPMD on Two Sources

joint work with Kun He, Sizhe Li, Enze Sun, Yuyi Wang, Roger Wattenhofer

WINE 2023

Time-Space Tradeoffs for Element Distinctness and Set Intersection via Pseudorandomness

joint work with Xin Lyu

SODA 2023

Honors & Awards

Scholarship

- 2020 National Scholarship of P.R. China (Top 0.2% nationwide)
- 2020 Tang Lixin Scholarship (60 winners each year in SJTU)
- 2020 Zhiyuan Honorary Scholarship

Competitions

- Gold Medal, The 2020 ICPC Asia-East Continent Final Contest
- Second Runner up, The 2020 CCPC Qinhuangdao Programming Contest
- Second Runner up, The 2019 ICPC Asia Bangkok Programming Contest
- Silver Medal, The 35th China National Olympiad in Informatics (NOI 2018)
- First Prize, The 2018 National High School Mathematics League (Shanghai Regional)

OTHER EXPERIENCE

Teaching Assistant

- UIUC CS 473 Algorithms: Fall 2025
- \bullet UIUC CS 374 Introduction to Algorithms & Models of Computation: Fall 2024
- $\bullet\,$ SJTU CS 2962 Graph Theory and Combinatorics: Spring 2022, Spring 2023

Shanghai Jiao Tong University ICPC team

Co-coach June 2021 - Aug. 2022