

Benyu Wang

University of Michigan, Ann Arbor, US
benyuw@umich.edu | wbyyui.github.io

Updated November 1, 2023

Interests

- Broad interest in **Theoretical Computer Science**.
- Study and research experience in **Graph Algorithms and Lower Bounds / Combinatorics**.

Education

University of Michigan **Ann Arbor, US**

PhD student at Computer Science and Engineering (CSE) Aug 2022 – now

- Advisor: *Prof. Thatchaphol Saranurak*

Yao Class, Tsinghua University **Beijing, China**

B.Eng., Computer Science and Technology Aug 2019 – Jun 2023

- Advisor: *Prof. Ran Duan*

- GPA: **3.90**/4.00 & For Yao Class courses only: **3.98**/4.00

Selected Courses: (A+/A stand for 95-100 in 100-point values, A+ is the best grade)

- Mathematics for Computer Science (A+) & Mathematics for Artificial Intelligence (A+)

The only one to get both A+ from the two courses instructed by Prof. Andrew Yao in Spring 2020.

- Theory of Computation (A+) & Design and Analysis of Algorithms (A+)

- Basic Topology (A) & Abstract Algebra (A+) & Game Theory (A) & Cryptography (A)

Experiences

University of Michigan **Ann Arbor, US**

Undergraduate Research Intern (Visitor) Feb 2022 – Aug 2022

- Visiting the theory group of UM. Worked with *Prof. Seth Pettie* and *Prof. Thatchaphol Saranurak*.

Publications

Tight Conditional Lower Bounds for Vertex Connectivity Problems

Zhiyi Huang, Yaowei Long, Thatchaphol Saranurak, **Benyu Wang**

- STOC 2023, [arXiv:2212.00359](https://arxiv.org/abs/2212.00359).

- We gave **tight lower bounds** for vertex connectivity problems assuming the 4-Clique conjecture, which separates the hardness of vertex connectivity problems and related edge connectivity problems.

Teaching

Teaching Assistant, Theory of Computation Spring 2023, Tsinghua University

Undergraduate theory course instructed by Prof. Ran Duan.

Teaching Assistant, Design and Analysis of Algorithms Fall 2022, Tsinghua University

Graduate-Level algorithm course instructed by Prof. Ran Duan.

Selected Awards and Scholarships

Rank 2 in ICPC East Central NA Regional (Qualified into NA Championship) 2023

Excellent Academic Scholarship & **Excellent Art** Scholarship of Tsinghua University 2022

Excellent Voluntary and Public Service Scholarship of Tsinghua University 2020

Gold Medal in Chinese Mathematical Olympiad (CMO) (ranked **86th** in China) 2018

Silver Medal in National Olympiad in Informatics (NOI) (ranked **90th** in China) 2018