# Haoxuan Xie

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### **Education**

### Nanyang Technological University

2023.8 - Now

- PhD student in College of Computing and Data Science;
- Research fields: graph storage, graph algorithm and graph-based vector retrieval;
- Supervisor: Sigiang Luo.

### The Chinese University of Hong Kong, Shenzhen

2019.9 - 2023.7

- BEng (Computer Science and Engineering);
- cGPA (cummulative GPA): 3.704/4 (7th out of 102); mGPA (major GPA): 3.84/4 (6th out of 102);
- 2020, 2021 Dean's List; 2020, 2021 Class C Academic Performance Scholarship.

# **Publications**

- ICDE 2025 conference paper: Finding Near-Optimal Maximum Set of Disjoint k-Cliques in Real-World Social Networks;
- SIGMOD 2023 conference paper: On Querying Connected Components in Large Temporal Graphs.

## Competitions and Awards

- Programming Contests: Silver medalist in ICPC 2021 East Continent Regional Contest (Jinan site); Bronze
  medalist in ICPC 2023 Asia Pacific Regional Contest (Vietnam site, ranked 16th out of 125 teams);
- Maths: the National First Prize in The Chinese Mathematics Competitions, 2020;
- Mathematical Modeling: the National Second Prize in Contemporary Undergraduate Mathematical Contest in Modeling, 2020; finalist award in The Interdisciplinary Contest in Modeling, 2021 (top 1%).

### Experiences

## Tencent IEG Internship

2022.12 - 2023.6

- Work in the company, Tencent, as a researcher in the Interactive Entertainment Group;
- Publish a co-authored paper in ICDE 2025 supervised by Wenqing Lin.

#### CUHK(SZ) Research Assistant

2021.9 - 2022.10

- Perform research on graph algorithms supervised by the professor, Yixiang Fang;
- Propose a new problem: connected components in temporal graphs, which models real-world relationships and devise novel algorithms for the problem;
- Awarded with the Undergraduate Research Awards in CUHK(SZ):
- Publish a paper as the first author in the SIGMOD 2023 conference.

#### PingCAP Internship

2022.5 - 2022.9

- Work in the company, PingCAP, as a developer of distributed database and data migration tools;
- Contribute to the TiDB project and its corresponding data migration tool TiFlow project by identifying and fixing internal errors;
- Contribute to the backend of TiDB Cloud project by developing monitoring metrics on Grafana;
- Develop a mock DB named DM simulator to simulate the data migration process for testing new features.

#### **HKU Research Internship**

2022.7 - 2022.9

- Perform research on densest subgraph problems supervised by the professor, Reynold Cheng;
- Formulate a new definition of practical densest subgraph problem and propose an approximation algorithm.