

Yuting Fang

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EDUCATION

The Ohio State University

Aug 2017 – May 2021

B.S. Dual Degree in Mathematics and Computer & Information Science

Major GPA: 3.65

- **Coursework:** (MATH) Linear Algebra, Abstract Algebra, Differential Equations, Topology, Real Analysis, Statistics; (CS) Database, Data Mining, AI, Algorithm, OS, Networking, Software Development.
- **Society:** SIAM student member, SIMIODE student member.

RESEARCH

OSU Department of Computer Science and Engineering

Aug 2020 – Present

Hybrid Transactional/Analytical Processing on CPU-GPU System

Professor: Rajiv Ramnath

- Conduct literature review, research hypothesis and paper summaries on HTAP for team, focusing on techniques and challenges involving GPU; seek strategies to improve overall efficiency of HTAP system.
- Use **Python** and **Google Colab** to implement experiment utilizing both CPU and single GPU. Collect and analyze times for transaction and analyses under different dataflow; evaluate the use of multiple threads and parallel computing. Next Step: utilize multiple GPUs and apply scheduling strategy.

OSU Topology, Geometry, and Data Analysis Group

Feb 2020 – May 2020

3D Shape Analysis and Classification via Persistent Homology

Professor: Facundo Mémoli

- Applied topology data analysis approach to analyze and discriminate different classes from TOSCA database of 3D nonrigid shapes; built geometrically sensitive filtrations based on persistence intervals computing by applying eccentricity function.
- Used **C++** and **MATLAB** to implement functions for subsampling and noise reduction to process whole dataset efficiently. Combined methods of multidimensional scaling and k-NN to access classification result. Visualized the result and analyze possible reasons for problems. Gave [presentation](#).

WORK EXPERIENCE

OSU Courtside Café Student Manager

Aug 2017 – May 2020

- Honored as **2019 Best Student Manager** by OSU Dining Service (1 of 20).
- Responsible for organizing daily operations in kitchen to provide outstanding customer service. Maintained and implemented OSU dining service's operating standard. Prompted online ordering system to customers.
- Communicate with full-time managers and lead other student employees. Further communication in student team to improve efficiency. Involved in student employee training plan design.

CITIC Futures Co., Ltd Research Intern

Shanghai, China Jul 2018 – Aug 2018

- A leading comprehensive financial company, largest domestic futures company.
- Gathered and organized market information about several non-ferrous metals. Tracked stock price and relevant news of aluminum, copper, and nickel. Wrote daily and weekly summary report for further study.
- Assisted research on domestic markets of stainless steel. Generated report on information about stainless steel market, including origins, processing, leading enterprises, import and export data in recent years.

COMMUNITY SERVICE

- **Student Judge:** SIMIODE Challenge Using Differential Equations Modeling V, Nov 2020.
- **Volunteer:** OSU COVID-19 Testing Kit Packing, Aug 2020.
- **Student Representative:** OSU International Freshman Pre-Departure Orientation, Jun 2018.
- **Side Leader:** OSU Pay It Forward's Community Commitment, Aug 2017.