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: 3.74**

- **Coursework:** (MATH) Linear Algebra, Differential Equations, Abstract Algebra, Topology, Real Analysis, Statistics; (CS) Algorithm, Operating System, Database, Data Mining, AI, Networking, Software Development.
- **Technical Skills**: Python, Java, C/C++, HTML; Visual Studio, Eclipse; R, MATLAB; SVN, SQL.
- **Society**: SIAM student member.

The Ohio State University **Start Aug 2021**
M.S. in Computer Science and Engineering

RESEARCH PROJECT

OSU Department of Computer Science and Engineering **Aug 2020 – Present**
Hybrid Transactional/Analytical Processing

- Use **Python** and **Google Colab** to implement experiment analyzing data with CPU and GPU. Collect and track times for transaction, analysis, and transerfering between CPU/GPU; study GPU performance.
- Use **Python** to implement experiment runing simultaneous multiple transactional and analytical processes, study performance of different processes number and sync mechanisms. Visualize result and give weekly report.
- Use **Docker** and **Kubernetes** to build containers capture, transact and analyze SDR data on lab server.

OSU Topology, Geometry, and Data Analysis Group **Feb 2020 – May 2020**
3D Shape Analysis and Classification via Persistent Homology

- Applied topology data analysis approach to discriminate different classes from TOSCA database of 3D nonrigid shapes; built geometrically sensitive filtrations on persistence intervals by applying eccentricity function.
- Used **C++** and **MATLAB** to implement functions; subsampled by Farthest Point Sampling and reduce noise to process whole large dataset (450 thousand's 3D points, two-level distance computation) efficiently.
- Combined methods of multidimensional scaling and k-NN to access classification result. Analyze possible reasons for objects remaining hard to classify. Visualized the result and gave presentation.

OSU Department of Computer Science and Engineering **Feb 2020 – May 2020**
Acoustic Signal Based Objects Tracking

- Conducted literature review deliverables on application of acoustics in tracking for team.
- Analyzed experimental data according to theoretical formulas; extracted insights for optimizing experimental setting (numbers and position of speakers, acoustic frequencies applied).

WORK EXPERIENCE

OSU Courtside Café Student Manager **Aug 2017 – May 2020**

- Honored as ***2019 Best Student Manager*** by OSU Dinning Service (1 of 20).
- Responsible for organizing kitchen operations. Maintained OSU dining service's operating standard. Communicate with full-time managers and lead other student employees, improved team efficiency.

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 of several non-ferrous metals. Tracked stock price and relevant news. Conducted reporting deliverables, including daily/weekly summary for further study.
- Assisted research on domestic markets of stainless steel. Generated report on information about stainless steel market, including origins, processing, application, leading enterprises, import and export data in recent years.

COMMUNITY SRVICE

- **Student Judge**: SIMIODE Challenge Using Differential Equations Modeling V, Nov 2020.
- **Student Representative**: OSU International Freshman Pre-Departure Orientation, Jun 2018.