

Yuting Fang

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EDUCATION

The Ohio State University

Estimated Grad: May 2021

B.S. in Mathematics and Computer & Information Science

GPA: 3.59

- **Coursework:** (MATH) Real Analysis, Abstract Algebra, Discrete Math, Vector Analysis, Statistics, Topology; (CS) Algorithms, Operating System, Database, Network, Artificial Intelligence, Software Development.
- **Technical Skills:** (Language) Java, C/C++, Python, JavaScript, HTML; (Environment) Eclipse, Visual Studio; (Software) MATLAB, R, LaTeX, MS Office; (Tool) SVN, SQL.

COURSEWORK PROJECT

2D Interactive Game Software

May 2020 – July 2020 Group

- Used **C#** in **Visual Studio** to design and build a 2D action-adventure game imitating *The Legend of Zelda*.
- Responsible for interfaces and classes development, applied event-based programming. Implemented functions including multi-level mode, multiplayer mode, points tracking, and camera following.

Machine Learning Spam Filter

Jan 2020 – Mar 2020 Personal

- Used **R** to train a model on given datasets with **Naïve Bayes Algorithm**; estimated probability of a text message was spam based on presence of word sequences; 90% accuracy on test dataset.

Simple Language Parser Implementation

Jun 2019 Personal

- Used **Java** to build a recursive-descent parser for a language with given grammar; generated program if valid, reported any syntactical error; developed specification-based test plans using **JUnit**.

Book Store Operation Database System

Mar 2019 – May 2019 Group

- Used **SQL** to design and build a data management system for sales operations and inventories management. Responsible for designing ER model and normalization, writing SQL queries for indexes and transactions.

RESEARCH

OSU Topology, Geometry, and Data Analysis Group Student

Jan 2020 – May 2020

Shape Analysis and Classification via Persistent Homology

Instructor: Facundo Mémoli

- Used **C++** and **MATLAB** to analyze and discriminate different classes from TOSCA database of 3D nonrigid shapes by topology data analysis; designed geometrically sensitive filtrations by applying eccentricity function.
- Implemented functions for subsampling and noise reduction to process whole dataset efficiently. Applied and combined multidimensional scaling and k-NN to access classification result. Gave presentation ([PPT](#)).

OSU Department of Computer Science and Engineering Research Assistant

Jan 2020 – May 2020

Acoustic Signal Based Objects Tracking

Instructor: Dong Xuan

- Designed and implemented solutions for smartphone based single object tracking using inaudible acoustic signal. Final solution provided millimeter level accuracy and millisecond level latency in one square meter area.
- Responsible for doing experiment and calculation on potential solutions; gave report analyzing feasibility, benefits, and cost with collected data. Hand-on experience in problem-solving research.

WORK EXPERIENCE

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, application, leading enterprises, import and export data in recent years.

Courtside Café at OSU Student Manager

Aug 2017 – May 2020

- Responsible for organizing daily operations in kitchen to provide outstanding customer service. Maintain and implement OSU dining service's operating standards. Prompt communication in team to improve efficiency.
- Honored as **2019 Best Student Manager** by OSU Dining Service (1 of 20)