Ya Yi

✉: yyi@uw.edu | ⌂: happya | ☎: 206-660-6053 | 🎓: Ya Yi | in:LinkedIn

Summary of Qualifications

- Programming language: C++, Java, Python, JavaScript, MATLAB, Verilog
- Web development: Flask, Vue.js, React.js, Html, CSS
- Developer tools: Git, Docker, Machine Learning, MongoDB, Database management system

Education

University of Washington   Seattle

M.S. in Electrical & Computer Engineering (GPA: **3.9/4.0**)   **Expected Jun. 2021**

Related coursework: Data Structure & Algorithms, Database Internals, Machine Learning for Big Data, Computer Vision

Hong Kong University of Science and Technology (HKUST)   Hong Kong

Ph.D. in Physics (GPA: **3.91/4.0**)   2012-2016

Wuhan University   Wuhan, China

B.S. in Electronic Science and Technology (Major GPA: **3.90/4.0, Rank: 1/115**)   2008-2012

Projects

Smart Data Analyzer (Flask & React.js), University of Washington & Tupl Inc.   Jan. 2020-Jun.2020

- Developed a web application with interactive dashboard to provide useful information of data from telecom operators.
- Performed automatically data type identification, basic statistics and frequent pattern mining using **Pandas and PySpark**.
- Adopted **Python Flask** framework to build back-end APIs, trigger data analysis algorithms and construct the data pipeline through the front-end and the database. Adopted **MongoDB** to store analysis results.
- Built user interfaces for analyzer visualization using the JavaScript framework **React.JS**.
- Deployed the application with **Docker** and **Docker-compose**.
- Utilized **Git** for version control and team collaboration.

Yelp Recommendation System (Python), University of Washington   Jan. 2020- Jun.2020

- Developed a recommendation system to predict users' rating on restaurants.
- Implemented different machine learning models, including **ALS**, **Community Detection**, **Spectral Clustering**, and **network-based graph algorithms** (Distance-based similarity and Eigenvector centrality-based influence) to predict the users' preferences.

SimpleDB-a relational database management system (Java), University of Washington   Jan. 2020-present

- Developed a relational database management system that supports data **caching and querying, locking/transactions, and logging/recovery**.
- Implemented operators for data **scanning, joining, filtering, aggregating, inserting and deleting**.
- Designed a lock manager to implement a strict two-phase locking, and a log manager for data recovery and transaction rollback.

MeowSic: A web music player (Vue.js)   May.2019 - Jul. 2019

- Developed a web music player using the MVVM architecture pattern and the JavaScript framework **Vue.js**.
- Accomplished a full-featured music player kernel that can play/pause, fast-forward/rewind, switch songs, like/dislike songs, change play mode, and create/change playlist.
- Packaged the App with Webpack and deployed it on the web server with **Nginx**.
- Adopted a technology stack covering **Vue**, **Vuex**, **Webpack**, **ES6**, **axios** and **Stylus**.

Experience

Full-stack Software Engineer Intern, Tupl. Inc   Jan.2020-Jun.2020

Researcher, Shenzhen Institutes of Advanced Sciences, Shenzhen, China   Mar. 2017-May 2019

Teaching Assistant, HKUST, Hong Kong, China   Mar.2013-Jun. 2015

Undergraduate Intern, Department of Physics, HKUST, Hong Kong, China   Mar. 2012-Jul. 2012