Wai Chun Leung

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Education

Bachelor of Science, Computer Science ***Sept. 2017 ~ Jun. 2021***

University of California, Santa Cruz GPA: 3.8, Dean's Honor List

Work Experience

Amazon Web Services, Software Development Intern ***Jun. 2020 – Sept. 2020***

- Develop a responsive web application using React, Typescript, and Node to enhance customer experience with viewing, searching, and creation of AWS cloud service logs.
- Design and integrate a web service for handling data queries and stores for millions of customer logs retrieved from AWS services such as EC2, Cloud Trail, and Route 53.
- Improve product stability and detect regression by implementing unit tests and end to end tests using Jest, Testing-Library, and Puppeteer.

Projects

E-Mail Web Application ***Sept. 2020 – Dec. 2020***

- Create a full-stack E-mail web application using React and Material UI for the browser, Node and Express for the server, and PostgreSQL for storage.
- Allows users to view, create, delete, and manage emails in multiple inboxes within the web application.
- Implement unit tests and end to end tests using Jest and Puppeteer to ensure reliability.

Distributed Key-Value Store ***Mar. 2020 – Jun. 2020***

- Develop a distributed key value store using Python, Flask, and Docker that emulates database programs such as MongoDB and CouchDB.
- Build and test consistent and fault-tolerant distributed servers to improve access performance and data reliability.

Password Cracker ***Sept. 2018 – Dec. 2018***

- Brute-force password cracker written in C++
- Use a multi-threaded approach on all possible CPU cores to increase efficiency and speed.
- Create multiple instances of the password cracker using distributed systems.

Custom Compiler

- Work in a team to create a C++ program that compiles a custom language
- Implement a lexical analyzer, LALR parser, symbol/type checker, and intermediate code generator to fully read and process a custom language into an executable program.
- Integrate symbol tables, string sets, and abstract syntax trees to optimize the speed and efficiency of the program.

Skill / Interest

Languages: Java, C/C++, Python, .NET/C# , Haskell, Bash, Assembly (MIPS & RISC-V)

Web: Javascript (ES6), React, Typescript, NodeJS, HTML/CSS

Database: postgreSQL, mySQL, DynamoDB, MongoDB, Oracle, ODBC/JDBC

Other: Linux (Ubuntu), Git Bash, UNIX, Visual Studio, Docker, Eclipse, IntelliJ