Hongkaiyue (Kerry) Zhou

ubc science co-op

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TECHNICAL SKILLS

Languages	TypeScript, Python, HTML5, CSS3, Java, JavaScript, C, C++, Bash
Front End	React, Redux, Babel
Back End	Node.js, Express.js, Spring Boot, REST, Maven, SQL, MySQL, MongoDB
Testing	JUnit, Mocha, Chai, Karma
CI/CD	Git

WORK EXPERIENCE

CPSC Teaching Assistant, UBC, Vancouver   Sep 2019 - Present

- Led labs with 30+ students and assisted lectures with 150+ students
- Offered office hours, organized online course material and held review sessions on topics including **Finite State Machines**, Mathematical Proof Strategies, **Regular Expression** and Predicate Logic

Software Developer, Ieteam Information Technologies. Inc Shanghai, China   May – Aug 2019

- Built and shipped production-level React component according to specs in an **agile** development team
- Developed a **React** Single Page Application that allowed customers to retrieve all environmental hygiene information for any specific restaurant
- Implemented a **RESTful** backend with **Java, SpringBoot** and **MySQL**

PROJECTS

Bloggy   May 2020 – Present

- Launched a bloggy web platform using **JavaScript & TypeScript** with **ES6** syntax for users to share **blogs** & gain knowledge and deployed to **Google Cloud** to leverage cloud services, reducing server costs by 80%
- Developed a Single Page Application with **React & Ant Design** to allow users to post & reply blogs, and allow staff to filter articles by tags, monitor comments and visualize users' statistics
- Built a RESTful backend with **Node.js, Express, & MongoDB** and followed by **TDD** with **Mocha & Chai**
- Implemented **HTTP** requests with **Axios** to send user commands and received interpretations

BSS   May 2020 – Present

- Designed & implemented a small **Domain Specific Language**(DSL) called BSS which is a stylesheet language and a superset of CSS
- Developed a compiler using **TypeScript** that compiled BSS into CSS, which allowed front-end developers to write CSS with **nested style rules, variables, functions, control flow, mathematical operations & inheritance**
- Performed a **task-driven user study** on the effectiveness of the language to guarantee features had rich expressive power and allow front-end developers to write more modular and maintainable CSS code

InsightUBC   Sep 2019 – Dec 2019

- Designed a JSON-based query language to retrieve information from 10000+ course offering
- Implemented a query engine in **TypeScript with ES6 syntax** & **Node.js** and built **REST** endpoints in **Express**
- Reduced debugging time by 50% by practicing Test Driven Development with **Mocha**, **Chai** & **Karma**, achieved 94% coverage, and used **yarn** and **npm** scripts to automate test execution

RateForMyRestaurant   May 2019

- Developed a desktop app for UBC students to review restaurant ratings on campus using **Java, MySQL & JDBC**
- Optimized SQL queries and reduced execution time by simplifying joins and reducing table size
- Led a 4-people Agile team as **scrum** master and used **Git** for version control

EDUCATION

The University of British Columbia   Expected Grad: May 2022

B.Sc in Computer Science

- Dean's Honour List