Kerry Zhang

Email **kerryzhang12@gmail.com**
Phone **(778) 238-7854**
Location **Vancouver, BC (Can Relocate)**
Website kerryzhang.onrender.com

Education

University of British Columbia - Vancouver, BC

Bachelor of Applied Science, Electrical Engineering (GPA: 3.65 / 4.00) Sept. 2019 - May 2024

Courses: Data Structures and Algorithms, Object-Oriented Programming, Computing Systems, Deep Learning, Computer Architecture, Digital Systems Design, Microcomputer Systems Design, Embedded Systems

Work Experience

LinuxMagic - Vancouver, BC

DevOps (Software) Engineer Nov. 2024 - Present

- Enhanced email server software by implementing **C**-based features that interacted with **PostgreSQL** database, network protocols such as **TCP/IP**, and interfaced with **Apache**, **JavaScript**, and **PHP** web interface.
- Built a high-performance **C++** backend to aggregate and transmit 10+ real-time server metrics to a live web dashboard, utilizing **websockets** and applying object-oriented design principles for scalability.
- Deployed, configured, and debugged bare-metal **Linux Ubuntu** backend installations on client hardware via command line, ensuring seamless email and spam filter functionality for software serving dozens of ISPs.
- Created **Bash** and **Perl** scripts to automate user and log file analysis, streamlining administrative workflows.

Brave Technology - Vancouver, BC

Firmware Engineer Co-op Sept. 2022 - Dec. 2022

- Developed production-ready **C++** embedded software for dozens of early intervention overdose detection sensors.
- Enhanced **Travis CI/CD pipeline** by configuring clang-tidy code linting and GTest unit testing with **Python** scripts, increasing production code quality and reducing defects by 20%.
- Created custom **C++ software mocks** to simulate device firmware and external library functions for testing, reducing hardware dependency during development and improving test coverage by 30%.

Solidigm - Vancouver, BC

Firmware Engineer Co-op Jan. 2022 - Aug. 2022

- Programmed **C embedded software** for solid state drive (SSD) command functionality and data transport, delivering robust and well-documented code for tens of thousands of devices in production.
- Completed stories, stand-ups, and code reviews using **Agile** software methodology and **Git**.
- **Designed** and **executed tests** utilizing internal tools to successfully verify functionality of changes and prevent 95% of regressions, and collaborated with internal teams while modifying complex legacy codebase.

Technical Projects

Song of the Day - Website Link

Personal Project July 2024 - Sept. 2024

- Created full-stack social media web-app allowing users to share a song they enjoy with others, every day.
- Built application from scratch using **TypeScript** and **React** for frontend, and **Node**, **Express** and **PostgreSQL** for CRUD API backend, designing features such as daily user posts, comments, profiles, friends, and search.
- Deployed web-app using **DigitalOcean** cloud server with **Docker** container, and database using **Supabase**.

Wearable Health Monitor - Github Link

University of British Columbia Sept. 2023 - Apr. 2024

- Designed reliable and expandable **Python** firmware for wrist-wearable device monitoring hospital patient vital signs, interfacing with Raspberry Pi and sensors, and implemented wireless communication using **TCP**.
- Created **Python** backend with **Flask** endpoints allowing device to wirelessly transmit data to server.
- Displayed data in positively-received custom user dashboard frontend built using **JavaScript** and **Vue**.

Languages: C++, C, JavaScript, TypeScript, Java, Python, SQL, HTML, CSS, Verilog, Assembly
Tools/Frameworks: Git, Travis CI, Linux, Docker, MATLAB, Agile, Jira, Node, Express, React, Next, Vue, Tailwind
Interests: Powerlifting, Bouldering, Fashion, Beatmaking, Advent of Code, Geography