Jeffrey Yue

Software Engineer

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Talented Software Engineer with a wealth of experience delivering dynamic solutions including mobile applications and complex web platforms within fast-paced environments. Enjoys 3-D printing, hiking, piano, and basketball (Go Clippers!).

Technical Skills

Programming Languages: Java, Python, C, C++, Kotlin, Verilog/SystemVerilog, Kotlin, LaTeX, JS, Ruby, HTML/CSS, C#
Dev Tools and Frameworks: Git, Jira, MatLab, MARS, Linux, Word, Excel, Figma, Github, Flutter, Firebase, Docker, MongoDB
Concepts & Methodologies: Scrum, Agile, Machine Learning, Embedded Systems, Computer Networks

Work Experience

Smart Doorbell — San Diego, CA

Embedded Systems Engineer — Dec. 2024- Present

• Developed using **Python** on a Raspberry Pi 3 to emulate a Ring Doorbell system, using a **Flask** server for real time video streaming, and using an SR-04 sensor to detect motion at a certain frequencies, providing alerts for nearby movements at an accuracy rate of 90%.

University of California — Santa Cruz, CA

Teaching Assistant — Dec. 2021 - Nov. 2023

• Assisted professors in educating younger students on software engineering basics through coding workshops and collaborative web development projects, fostering basic proficiency in technologies such as **Python**, **Java**, **C**, and **C++**.

• Provided individual and group tutoring sessions in mastering **C** and **C++** assignments by simplifying complex concepts and reinforcing fundamental principles, fostering an engaging and supportive learning environment.

Private Work — San Diego, CA

Software Engineering Tutor — July 2018 - Feb. 2020

• Assisted in a group of volunteers with class schedule management, improving English and coding skills among first-generation international beginner and intermediate students.

Education

University of California, Santa Cruz — Santa Cruz, CA

B.S. in Computer Engineering — Sep. 2020 - June 2024

Relevant Software Projects

Full-stack quiz web and mobile application *using Flutter, Firebase, and Dart*

• Implemented **Google** Account backend authentication for login functionality by integrating the **Google API**, utilizing **OAuth 2.0** and **JWT**, and applying continuous integration and source version control to ensure secure login.

• Evaluated debugging solutions by deploying automated tests such as unit tests, integration tests, and end-to-end tests using **Jest**, **Mocha**, **Jasmine**, **Cypress**, **Selenium**, **Puppeteer**, and **Playwright** to achieve a code coverage of **100%**.

Money-tracking Web Application *using Flutter and Kotlin*

• Developed a scrollable navigation bar using **Flutter**, refining user interface with smooth animations and transitions, and boosting overall app performance through efficient code minification and lazy loading.

• Implemented the integration of personal bank accounts into the application through the **Plaid API**, employing **React** and **Angular** for seamless user interaction and enhancing the server side with **Node.js**, **Django**, and **Express** to manage secure data handling, while optimizing data retrieval strategies using caching, load balancing, and **API** rate limiting, improving processing speed to under **100** ms.

• Deployed on Chrome, Android, and iOS using **blue-green** deployment and canary release, and assisted by **Jenkins** and **Ansible**, reducing firmware deployment time to **3** min.