

Garrett King

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EDUCATION

Western Washington University

Bachelor's in Computer Science

Bellingham, WA

Aug. 2018 – Dec. 2023

EXPERIENCE

Control Systems Engineer

Jan. 2024 – Present

PACCAR Electronics - Digital Display - Rapid Control Prototyping - C/C++

Mount Vernon, WA

- Developed and implemented real-time State of Charge monitoring system for BEV trucks' key-off charging strategy, leveraging CAN bus protocols and embedded systems to enhance driver visibility and charge-level confidence
- Refactored and optimized 5,000+ lines of legacy Fuel Economy codebase to support next-generation BEV and FCEV truck platforms, ensuring cross-platform compatibility while maintaining system performance and reliability
- Led RCP team representation in cross-functional defect review meetings, implementing proactive code review processes that reduced incoming defects by 20% and improved development efficiency through early detection of system integration issues

Whatcom Coders

Apr. 2022 – Jan. 2024

Western Washington University

Bellingham, WA

- Gained hands-on experience with industry frameworks and application architecture through mentorship from WWU alumni software engineers
- Participated in weekly collaborative leetcode sessions focused on solving technical interview problems and discussing optimal solutions
- Applied learned concepts to personal development projects through peer programming and alumni guidance

PROJECTS

Scrambled Egg Mobile App | *Dart, Flutter, Firebase*

Dec. 2023 – Present

- Engineered a Flutter/Dart mobile application leveraging Firebase backend and Edamam API integration to deliver personalized recipe recommendations through an intuitive swipe-based interface, implementing real-time data fetching and preference-based filtering algorithms
- Developed robust JSON parsing and validation to filter API responses based on data completeness, implementing error handling logic for recipe, nutrition, and image fields to ensure high-quality content delivery to users
- Architected user authentication and profile management system using Firebase, enabling persistent storage of favorite recipes and social sharing functionality

Smart Buoy Mobile App | *Dart, Flutter, Firebase*

Jan. 2023 – Jan. 2024

- Designed an intuitive mobile interface for displaying buoy sensor data, allowing real-time data validation.
- Used Flutter to implement bluetooth connectivity, allowing users to connect to smart buoys via mobile device.
- Built bi-directional data sync between mobile app and web-server, expanding visibility of buoy metrics including location history and authorized users.

Café Website Deployment on AWS | *Deploying AWS, Linux, Apache, MySQL, PHP*

Oct. 2023

- Deployed a full-stack dynamic website on AWS EC2 to allow online ordering, improving customer experience.
- Configured Linux, Apache, MySQL, PHP (LAMP) stack on EC2 instance to host the website and database.
- Engineered robust architecture spanning two AWS regions to enable disaster recovery capabilities.

Clock Mobile App | *React-Native, JavaScript, Android Studio*

May 2023

- Developed an interactive React Native mobile app with dynamic time-based greetings and locale displays utilizing World Time and Quotes APIs.
- Created location-based conditional logic, tailoring app display to user's local time for a customized experience.
- Engineered pop-up animations delivering weather, timezone, and other critical location details on-demand, improving user context.

TECHNICAL SKILLS

Languages: Java, JavaScript, Dart, SQL, C/C++

Frameworks: React, React-Native, Flutter, Flask

Platforms: AWS, Linux, MySQL, Git

Developer Tools: Github, Visual Studio, Android Studio