KRISTIAN GOLDING

Doral, Florida, 33178 954.736.0266
kristian.golding@gmail.com www.linkedin.com/in/kristiangolding
www.github.com/daecks www.kristiangolding.com

ANDROID EMBEDDED SOFTWARE ENGINEER

Employing the best in software development principles to deliver high quality, reliable code

Android framework development professional with a focus on customizing AOSP framework code to meet a project's functional and performance requirements. Applies problem-solving skills to quickly resolve issues encountered during the development life cycle. Applies software development practices and tools to create readable, reusable, tested code. Partners well with diverse teams to achieve project goals as a core contributor, mentor, and scrum lead. Excellent oral and written communicator.

- C / C++
- Java
- Bash
- Gradle / Make / Soong
- Ruby / Python
- OOP / SOLID
- TDD / BDD
- Continuous Integration / Deployment
- Docker / Jenkins / SonarQube
- Vagrant / Virtualbox

PROFESSIONAL EXPERIENCE

MOTOROLA SOLUTIONS, Plantation, FL 2006 to 2020

Principal Software Engineer, Android Framework (2016 to 2020)
Developed and maintained Android framework code for 3 shipping products. Lead daily scrums and provided fellow engineers with consistent development environments and timely static analysis results.

- Customized the Android Java framework for multiple concurrent products, including device performance optimizations, proprietary services, and SELinux policy configuration.
- Wrote and sustained Android framework extension APIs for third-party applications delivered as part of shipping products.
- Lead development of a certificate management application housing device authentication libraries for communication with cloud-based servers. Devised a content provider for presentation of device enrollment status to customers.
- Analyzed Android service startup and intent priorities via use of Systrace and Bootchart, reduced camera-ready time by 20 seconds.
- Executed and resolved issues found with CTS/VTS/GTS Android test suites.
- Designed a common, version-controlled Linux development environment within Windows using Vagrant and Virtualbox, supporting approximately 60 developers locally and overseas.
- Designed a static analysis system for Gerrit code reviews using SonarQube, Jenkins, and Docker, for tracking and enforcing code quality at review time.
- Advocated for writing highly tested code. Delivered guidance through reviews and mentoring on what test methodology fit code deliverables.
- Managed and improved on-target and off-target test environments for multiple Android products.
- Constructed TV wall displays using Raspberry Pi, JavaScript, PHP, and SonarQube APIs to track code quality and test coverage metrics for feedback to engineering colleagues.
- Created and supervised multiple project Confluence workspaces to enable ease of access to project information for fellow developers.

- Debugged and improved an on-device Jetty server through utilization of Ruby MiniTest framework to verify integrity of REST APIs, removing several authentication issues.
- Created a device logs encryption mechanism to prevent information leakage from fielded devices.
- Organized daily stand-ups, backlog planning, retrospectives, and participated in scrum of scrums.
- Scheduled weekly book and video clubs to spread development best practices among engineering.
- Mentored interns over 3 consecutive years, giving daily guidance on project goals.
- Collaborated with DevOps team on continuous integration continuous deployment best practices over 5 years.

Sr. Software Engineer, Embedded C++ (2006 to 2016)
Developed and maintained C / C++ code for multiple mission-critical devices for police, fire, and ambulance customers.

- Developed multiple features in the protocol layer of several telecommunications products running on an embedded RTOS ARM platform over 10 years.
- Led 10 engineers in development of components governing communication of audio and signaling data with third-party devices.
- Led group of 5 people in porting of code over to a new platform.
- Implemented uLaw compression algorithm over serial bus link to cut audio bandwidth requirements by 50 percent.
- Guided engineers on how to write reliable, readable, and performant code by employing TDD, BDD, data analysis, and code review best practices.
- Organized defect resolution teams, fixing hundreds of bugs in defect fixing phase.
- Provided training for adoption of STL C++ in embedded coding environments.
- Implemented tools to assist in adoption of Agile, including review scripts for Clearcase and a template for continuous integration pipelines for instant adoption by new projects.

ADDITIONAL RELEVANT EXPERIENCE

MOTOROLA, Adelaide, Australia
Software Engineer, Embedded C / C++

EDUCATION

Bachelor of Engineering (BE), Computer Systems, Flinders University, Adelaide, South Australia

TECHNICAL SKILLS

Embedded Development: Firmware Coding Expertise, Reading Hardware Schematics, On-target debugging, defect identification and resolution

S**oftware Development:** Design Patterns, Modular Code Design Techniques, Modern Testing Frameworks, Test Automation