Brent Dimmig

Lancaster, PA admin@brentdimmig.com

WORK EXPERIENCE

Hammerhead Remote

Lead Software Engineer June 2019 - Present

- Develop new features for cycling computer across several Android apps and services in Kotlin
- Develop and deploy Go web service supporting device management, debugging, feature flags, and system updates
- Implement support of new ANT+ profiles for cycling devices
- Develop BLE sensor simulator to improve efficiency of development cycle
- Support board bring-up for new hardware platform with ANT+ radio on Android 8
- Modify AOSP source and build infrastructure to deliver custom Android ROM
- Integrate with C++ navigation library as native code in Android services
- Support and monitor cloud infrastructure in AWS
- Build cross-functional development team by conducting technical interviews and onboarding new hires

Senior Software Engineer August 2018 - May 2019

- Implement management and prioritization of multiple BLE and Ant+ streaming data source
- Develop client-server application in Go for managing device IMEI assignment on manufacturing line
- Integrate Mapbox Android navigation SDK for offline cycling turn-by-turn directions
- Implement Android UI views and animations to display stream data, using SciChart for graphs
- Develop complex RxJava observable transformers for numerical data fields derived from sensor data
- Standardized and automated Docker swarm deployment with Python scripts on Jenkins

Ring Malvern, PA

Software Engineer March 2017 - August 2018

- Integrated asynchronous updates with Amazon's Alexa smart home services with AWS Kinesis and SNS
- Supported product launch through bug triage, debugging, and fixing
- Implemented security panel software and integrations at the core of Ring Alarm product in C++
- Developed HTTP front-end and API in Go to handle hardware maintenance, updating, and life-cycle
- Developed API service in Go to handle warehouse data for building bundled device associations
- Created a Python utility to manage routine development tasks like ssh, deploying packages, and debugging
- Developed C++ wrapper for libsodium to encrypt and store sensitive data on embedded device
- Assisted development of sound and LED management daemon on Ring Alarm base station
- Dockerized embedded software to run as a virtual device before hardware was available
- Developed network daemon in Go which interfaces with hardware over DBus
- Assisted board bring-up for Z-Wave, ZigBee, and Bluetooth radio chips

Zonoff Malvern, PA

Software Engineer June 2015 - March 2017

- Primary contributor to C++ framework used for a modular, event-based home automation platform
- Integrated TCP server, timers, and file descriptor capabilities with C++ event loop wrapping libevent
- Developed system-level integration tests with Mocha test framework and socket.io in Node.js
- Lead development to integrate ZigBee switches, color bulbs, sensors, and thermostats
- Individually developed an asynchronous C++ HTTP client with libcurl and custom event loop
- Developed a cloud-based adapter with integrations for legacy security panel data protocols
- Abstracted 0MQ messaging layer used in embedded devices for reuse in cloud-based IoT plugins using AMQP
- Developed Alexa Voice Services API client in Go and integrated with embedded Linux hardware platform
- Unit tested all C++ code with gtest and wrote custom mocks for event loop and message bus
- Developed portable code which was cross-compiled and packaged for embedded Linux on ARM processors

Brent Dimmig, Design and Development www.brentdimmig.com

Owner, Operator 2009 - Present

- Deploy auto-scaling e-commerce website on AWS handling high traffic
- Develop store website with checkout through Stripe for secure payments
- Architect and develop PHP web applications using Laravel
- Deploy and maintain web-servers using Ansible
- Create responsive designs with CSS frameworks and SASS
- Maintain and improve legacy PHP websites

Federal Government Washington, DC
Computer Engineering Intern Summer 2014
- Designed a PCB layout and developed a prototype device with Cortex-M4 MCU with WiFi
- Developed a server/client networking application using TCP sockets and multithreading in C

Computer Engineering Intern Fall 2013
- Learned about computer information security, vulnerabilities, and attack prevention measures
- Worked with forensic imaging software, devices, and tools

Software Development Intern Summer 2013
- Developed a Ruby on Rails web application and wrote custom scripts to ingest legacy data

RIT Computer Engineering Department Rochester, NY
Teaching Assistant, Grader 2012 - 2015
- Courses: Computer Organization, Applied Programming, Assembly Language, Digital Systems

TECHNICAL SKILLS

Language: C++, Go, Kotlin, Python, C, Java, PHP, JavaScript, HTML, SQL

Libraries, Frameworks: C++11 STL, RxJava, Mobius, AIDL, vuejs, libevent, AMQP, OpenCV, Node.js, Laravel

Software, Tools: git, adb, Docker, Jenkins, Android Studio, CMake, Ansible, Vagrant, CircleCI, Jira

EDUCATION

Rochester Institute of Technology Rochester, NY
Bachelor of Science, Computer Engineering Fall 2011 - Spring 2015
- GPA: 4.0/4.0, Summa Cum Laude
- Honors & Awards: Outstanding Undergraduate Scholar, NRS Scholar, Tau Beta Pi Scholar, Dean's List