**Emmett Lam**

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**EDUCATION**

**University of Washington** Seattle, WA **Sep 2011 – Dec 2015**

***B.S. Electrical Engineering: Embedded Computing Systems***

**HIGHLIGHTS**

* 6 years embedded software experience pushing products through highly-regulated industries (FDA, FAA)
* Proactive engineer with excellent interpersonal and communication skills
* Proficient in C/C++, Python development environments
* Linux/Embedded Android device bring-up on ARM microcontrollers
* Design and implementation of CI/CD pipelines via Jenkins, Docker and Bamboo
* HW/SW interface development (timers, interrupts, hardware peripherals ie. SPI and ADCs)
* Strong EE fundamentals and HW/SW debugging skills (Logic analyzers, oscilloscopes)
* Requirements writing, verification tests, and thorough documentation experience

**SKILLS**

**General**

* C/C++ for embedded systems
* Embedded Linux/Android platforms
* Linux device drivers
* Communication protocols (UART, SPI, I2C)
* Git/Mercurial Distributed VCS
* Build systems administration (Jenkins, Bamboo)
* Docker, AWS ECS
* CI/CD pipeline design
* Distributed build systems
* Python/Bash scripting for task automation

**Languages**

* C, C++, Python, Bash, Java, JavaScript

**Tools**

* Git, JIRA/Atlassian toolsuite, Bamboo, Jenkins, Docker

**EXPERIENCE**

**PRO Unlimited @ Facebook Reality Labs *Embedded Software III* Oct 2020 – Present**

* Update and maintain Linux device driver for ingestion of streaming camera/sensor data
* Verify camera timestamp alignment for synchronizing camera streams from multiple devices
* Write test application suite for interfacing with device driver
* Automate test suite to run on code check-in and integrate with existing CI infrastructure
* Perform periodic FW release testing and produce test reports

**Kestra Medical Technologies Inc. *Embedded Software / Build Engineer*  Mar 2018 – Jul 2020**

* Integrated new features and bugfixes for C++ applications running on ARM Linux system
* Administrated Bamboo/Jenkins build system for test automation and deployment of production software
* Migrated build workflow to Docker containers hosted on Amazon ECS
* Automated Klocwork static code analysis reports upon Git check-in and SW releases
* Produced requirements-based verification test protocols
* Developed automated test scripts (Python)

**Crane Aerospace & Electronics *Embedded Software Engineer I* Feb 2016 – Feb 2018**

* Created low-power embedded systems (MPC565 platform) for processing analog sensor input
* Designed software requirements to be agreed upon by customer (IBM Rational DOORS)
* Developed safety-critical production software (C, Eclipse, Visual Studio)
* Conducted software unit test (C++) against target hardware simulator
* Performed internal design/code reviews