**Emmett Lam**

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**EDUCATION**

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

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

**HIGHLIGHTS**

* 5 years embedded software experience pushing products through highly-regulated industries (FDA, FAA)
* Requirements writing, verification tests, and thorough documentation experience
* Proficient in C/C++, Python development environments
* Linux platform development on ARM cortex microcontrollers
* Hardware level software development (timers, interrupts, hardware peripherals ie. SPI and ADCs)
* Experience designing build system workflows via Jenkins, Docker and Bamboo
* Strong EE fundamentals and HW/SW debugging skills (Logic analyzers, oscilloscopes)
* Excellent interpersonal and communication skills
* Demonstrates time-management and proven track-record of meeting customer deadlines

**SKILLS**

**General**

* C/C++ for embedded systems
* Embedded Linux platforms
* Python/Bash scripting for task automation
* Git
* Build systems administration (Jenkins, Bamboo)
* Docker and containerization
* AWS/remote instance administration
* Communication protocols (UART, SPI, I2C)
* VHDL/Verilog FPGA development
* Static code analysis tools (Klocwork, LDRA)

**Languages**

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

**Tools**

* Git, JIRA, Bamboo, Jenkins, Docker, Eclipse, Quartus

**EXPERIENCE**

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

* Integrate new features and bugfixes for C++ applications running on ARM Linux system
* Administrate Bamboo/Jenkins build system for test automation and deployment of production software
* Migrate build workflow to Docker containers hosted on Amazon ECS
* Automate Klocwork static code analysis reports upon Git check-in and SW releases
* Produce requirements-based verification test protocols
* Develop 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

***Systems Engineering Intern* Jun 2015 – Sep 2015**

* Verification testing of the Door Sensing System to be deployed on the COMAC C919 commercial aircraft
* Developed mixed VBA and LabVIEW tools for simulating input and output signals on Automated Test Equipment
* Produced tool qualification documentation per FAA industry standards. Documented requirements and test procedures performed