

LINUX | WINDOWS | ANDROID
PYTHON | JAVA | RUBY
SYSTEM AUTOMATION | SERVER ADMINISTRATION | PROJECT MANAGEMENT

Summary

Software validation engineer with experience leading full projects from the ground up, as well as navigating complex team and project mergers. I've written several applications for use in automation, designed and administrate continuous integration systems, and continually advocate and guide my team toward effective process.

Skills

Languages Python, Java, Ruby, C/C++, Javascript, C#, Golang, Ba(sh/tch), PowerShell, Verilog, ARM Assembly

Tools AWS (Lambda, DynamoDB, S3, Boto, Moto), ADB, MonkeyRunner, Selenium, Android Studio, Angular, Git, Subversion, Apache, PostgreSQL, SQLite, Mongo, Tomcat, Node, Express, Passenger, Visual Studio, CLR, .NET, Jenkins, TeamCity, Fiddler, Eclipse, Tarantula, Bugzilla, Jama, Jira, Rally, Arduino, Unity, Ant, Devise, Rails

Work Experience

Senior Software Engineer

Nike Contract

November 2017

- Evaluated and refactored AWS image processing application from a module to a class in Python. Developed unit testing procedure with Moto mocking framework and wrote tests for the application to hit 100% code coverage.
- Identified and fixed defects to harden application to unexpected use cases, covering events from DynamoDB, S3, and Lambda modules.
- Developed CI framework to exercise application in both Python 2 and 3 runtime environments, yielding statuses for success, code coverage, and linting errors for both PEP 8 and PEP 257.

Intel Contract: January 2014 – October 2017

Lead Software Validation Engineer

January 2015 – October 2017

ROP Detection

Return oriented programming (ROP) is a hacking method using machine instructions of running software. I was an SDET working to productize an acquired project designed to detect and report such attacks.

- Developed Python framework to facilitate analysis of our product's interaction with various concurrent applications
- Redesigned testing CI infrastructure from WET batch scripts to an extensible Ruby framework
- Designed C++ application to interface flexibly with burgeoning product API

Online Payments

Led full stack validation of a project using hardware resources to authenticate a user through their web browser. Successfully handled merger of three separate groups and 60% cut in time to market, making our team the division-wide example of reliability and grace under pressure.

- Developed test application in Java to handle full-stack validation of our DOM-based client
- Wrote C# test framework and C++ adapter library to interface native code to .NET environment
- Directed validation effort for 12 engineers, including product design, process, and employment decisions

Software Developer in Test (SDET)

July 2014 – March 2017

Biometrics Agent

Wrote and extended several applications covering most modules of massive SDK providing hardware-based user authentication and data encryption for various platform combinations.

- Wrote sample applications for customer integration with our SDK, as well as automation applications and new modules for legacy test framework in C++
- Extended server integration example and automation web services using Ruby, JavaScript, and Golang
- Developed server build CI and administrated test server stack including documentation and enabling remote teams

Laboratory Manager

January 2014 – August 2014

- Managed a \$35 million validation lab at Intel with over 150 personnel in eight different groups. I took over and centralized server administration, created PHP-based wiki and BKMs documenting lab procedure and system configurations.
- Built and troubleshot bleeding edge systems for software development teams covering six different technologies supported by Intel architecture with little or no documentation. Brought build time up from three weeks to 24 hours.

Education

B.S. Computer Engineering, Physics

2008 – present

Portland State University

Relevant courses: *Computer Science (I, II, III)*, *Electric Circuits (I, II, III)*, *Data Structures*, *Hardware Description Languages*, *Embedded Systems*, *Programming Systems*, *Microprocessors*, *Operating Systems*

B.A. Japanese

2004 – 2010

Portland State University