



• Engineering Applications Programmer II                      Education Media Foundation - Rocklin, CA                      August 7, 2017 - November 2, 2018

Maintain **Ruby on Rails** application to manage broadcast infrastructure.

Resolve issues related to integrating with third party vendor applications and equipment.

Automate audits of field hardware configuration to reveal misconfigurations automatically.

Triage and resolve issues related to field hardware and configuration.

I implemented a system to deploy applications to **AWS ECS** infrastructure.

I implemented a system to continuously destroy and recreate infrastructure nodes weekly to ensure OS patches are properly installed.

Implement monitoring system that collects time series data using **PostgreSQL** and **Telegraf**.

• Senior Platform Engineer                      Cloudstitch Inc. - San Francisco, CA                      January 9, 2017 - July 31, 2017

I implemented a command line interface for configuring backend resources, managing project deployment, update process and development server.

Using new **AWS Lambda** I implemented a user facing API services and resources.

Implemented a highly configurabe backend to automate the deployment of static websites based on office documents.

Implemented low latency system to track user interactions with API for purposes of tiered service levels.

• Software Engineer                      HP & HPE - Cloud R&D Development - Roseville, CA                      July 1, 2014 - October 28, 2016

I implemented a multi-product focused build system using **Node.js** and **Gulp**, deployed on **Linux**. This enabled my team and I to deliver distinct sets of plugins for multiple products. Each product may have a slightly different set of features and functionality based on included plugins, which also enabled multiple teams to deliver independent and disjoint plugins without conflict.

On a daily bases used **KVM virtualization** to stand up cloud on six or more VMs with several virtual networks.

Using **Python** deployed on **Linux** I implemented a system that can deliver plugins post install; these optional packages can provide both back end plugins and front end plugins to deliver additional functionality.

Implemented, using **Angular** and **JavaScript**, a first time cloud installer wizard with more than ten steps and a complex network configuration validation.

Implemented many content pages for **OpenStack** services to manage back end resources and report cloud infrastructure health.

Used **Angular**, **SCSS** and **CSS3** to implement dashboards with drag and drop.

Followed **agile** and **Scrum** software development methodology.

• Mobile Software Developer                      HP - Printing R&D Development - San Diego, CA                      April 8, 2013 - June 30, 2014

Using **Xcode** and **Objective-C** added features to an existing **iOS** application; using **Java** and the **Play Framework** add features to existing back end API used in the **iOS** app.

I migrated back end service from **Amazon AWS** to **HP Cloud** using **Puppet** and **Linux** as a new web ops deployment scheme.

Started a new augmented reality app for **Android** and **iOS**, building data driven link functionality that enables users to unlock hidden data in image watermarks.

Started a new portal using **Ember.js** and **Ruby on Rails** for customer data creation and management, enabling users to link digital content to printed media using watermarks.

Utilized mostly **pair programming** and followed **agile** software development methodology.

• Software Designer                      HP - Printing IT Development - San Diego, CA                      May 1, 2012 - March 8, 2013

I automated a factory quality assurance process, using **ASP.net** and **jQuery** implemented a UI that enables the QA engineer to set quality parameters for families of products.

I used **PL/SQL**(Oracle stored procedures) to implement an automated job that takes the quality parameters and validates completed work orders of products. Rewrote a multi-nested **SQL** query that was used to find work orders in the same family for comparison.

Re-implemented old **ASP** pages in **ASP.net** with small single page applications using **jQuery**, **JavaScript** and **Handlebars**.

## Education

• Certified Kubernetes Application Developer                      Cloud Native Computing Foundation                      January 2020

- Systems Architecture: Processor design and system design. Low level application development.
- Networking (Intro and Advanced): Familiarity with NAT, TCP/IP, DHCP, Cisco IOS configuration, Routing (BGP, RIP) and VLANs.
- Software Engineering and Software Engineering tools: Agile and Scrum methodologies and tools to facilitate engineering process.
- Assembly Language Programming: 68K assembly programming, interrupts and hardware stack management.
- Compiler Design (C++): Advanced Object oriented design to assist in runtime execution.
- Programs and Algorithms II (C++): Linked lists, stacks, inheritance, priority queues, and elementary trees.
- Object-Oriented Data Structures (C++): AVL tree, B+ tree, heaps, quick sort, hash tables, graphs
- Programming for Engineers (C++), Digital Logic and Design
- Calculus A, B & C, Differential Equations, Physics (Mechanics, Electricity and Magnetism).

#### </> HOBBY PROJECTS

- **Rock** - A web application that streams personal music from a home server or cloud storage. This project is in its third reboot using **Node.js** and **Ember.js**. I was using **Ruby on Rails**, **Backbone.js** and **Cake PHP** originally.
- **Rain** - A web application that creates image galleries based on images stored in **Amazon S3**. The goal is to create an alternative to Facebook photos and Flickr that can be self-hosted. This was implemented using **Ruby on Rails**.
- **Tower** - An electronics project to control a factory equipment light tower. I am currently working on custom PCB with **Atmel ATTiny85**.
- **DieRoller** - An electronics project to replace all physical dice. I am using a hardware based random number generator to create a device that can produce die values for any number sided die and amount of die. With this project your friends can no longer blame your good luck on the rigged dice.

#### 🐙 OPEN SOURCE PROJECTS I HAVE CONTRIBUTED TO

- **FreePie** - Programmable Input Emulator  
I have submitted a pull request to implement Wii Remote Classic Controller support.
- **tmk\_keyboard** - Keyboard firmwares for Atmel AVR and Cortex-M  
I have submitted and was accepted a pull request to implement XT protocol support for older IBM style keyboards.
- **sails-hook-jobs** - Sails JS hook to add async background jobs, using agenda  
I submitted and was accepted a pull request to add support for jobs implemented in coffee script.

#### 💎 RUBY GEMS I HAVE PUBLISHED

- **graphql-playground-rails** - Ruby on Rails engine.  
Rails engine that provides the [graphql-playground](#) development tool for graphql based applications.
- **acme-r53-cli** - CLI tool for Let's Encrypt  
A CLI tool that can be used to get **Let's Encrypt** certificates for domains on **AWS Route 53**.