Ross Lannen

Software Engineer

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Experience

LGS Innovations

Westminster, CO

Software Engineering Intern

June 2018 — August 2018

- Implimented cellular device command and control for a suite of portable wireless devices
- Interfaced with cellular modems using AT commands to receive incoming sms messages and record incoming phone calls, integrating with Mozilla's Deep Speech for speech to text processing
- Developed UI elements with Polymer allowing users to mimic sms and phone calls and see their effects before hardware is deployed
- Developed UI elements with Polymer to display information about currently attached cell modems to the user
- Wrote a nodejs native wrapper for the BladeRF software defined radio C library, enabling control of radio hardware from JavaScript
- Heavily used JavaScript promises to impliment asyncronous functionality between multiple node processes
- Advised other interns on my team on creating hardware agnostic software defined radio manager that other tools could interface with

Hewlett Packard Enterprise

Fort Collins, CO

Advanced Linux Development Intern

June 2017 — August 2017

- HPE Customer Project: To add features to HPE's memory-driven compute prototype in-memory file system allowing customer's software to run on proprietary hardware. This is to enable the rapid analysis of MRT scans and genome sequencing in support of neurodegenerative research.
- Added support for in-memory subdirectories and symbolic links to allow the customer to create file structures to hold data for analysis purposes
- Wrote integration tests to ensure the customer's software file system interactions will function as expected
- Features developed using Python3 and an SQLite database
- Enhanced the developer experience for HPE's memory-driven computing architecture through documentation and usability improvements to the architecture emulation utility
- Aided other interns in setting up emulation utility on their systems, enabling them to become productive sooner
- To see contributions made while at Hewlett Packard Enterprise, visit the open source repos at `www.github.com/FabricAttachedMemory`.

Education

Colorado School of Mines

Golden, CO

Computer Science

August 2016 — Exp. May 2020

- GPA: 3.700
- Relevant Courses: Operating Systems, Algorithms, Programming Languages, Data Structures, Intro to Linux, Software Engineering, Database Management, Computer Organization, Probability and Statistics, Discrete Mathematics, Linear Algebra.
- Built a linux command-line shell in C++ featuring environment variables, path command completion, username display, and previous command status using GNU readline library
- Built a full stack clojure web application enabling a user to create, view, update, and delete blog-like posts stored in a server-side database. Implimented using clojure with ring/compojure for the backend API, and clojurescript with re-frame for the client-side SPA
- Implimented a Scheme-like lisp parser and interpreter in python, featuring lexical scoping and tail-call optimization for recursive functions

Skills

Programming and Markup Languages

Python, JavaScript, C++, Java, Clojure, Haskell, Elm, F#, SQL, HTML, CSS, LaTeX, R

Tools, Platforms, and Frameworks

Linux, Git, Polymer, NodeJS, Docker, PostgreSQL, SQLite, Django, Ring/Compojure, Re-Frame, Node Native