

Justin Kim

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EDUCATION

B.S. Computer Sciences, University of Wisconsin-Madison (May 2019)

- Coursework: Data Structures, Computer Engineering, Discrete Mathematics, Machine Organization, Calculus 1 & 2, Matrix and Linear Algebra, Cryptography, Algorithms, Operating Systems, Database Management Systems, Computer Graphics, Computer Networks, Information Security
- Dean's List Spring 2017

EXPERIENCE

Software Engineer Intern

Oct 2019 - Present

Open Learning Exchange

Renton, WA

- Worked on the command line interface team developing and testing commands for the custom Raspberry Pi images used by the organization
- Rewrote from the ground up the script used to install and maintain Docker Containers running on the Raspberry Pis in order to accommodate easier access through the organization's Android application
- Performed quality assurance testing on any reported issues with the organization's various software packages and repositories
- Tools & Technologies Used: Bash, Docker, Git, Raspberry Pi, Travis CI

PROJECTS

- **RPG Reddit Bot** (github.com/kjong/rpg-reddit-bot) Wrote a Reddit bot that continuously monitors Reddit comments for a specified keyword and automatically generates a custom role-playing game character based on the commenter's username. Runs on a DigitalOcean Ubuntu droplet. Developed in Python using Python Reddit API Wrapper (PRAW).
- **Twitter Sentiment Analysis** (github.com/kjong/how-does-twitter-feel-about-it) Built a Twitter sentiment analysis tool that scrapes tweets containing specific hashtags, reports total results (positive, neutral, negative tweets), and identifies the most positive and most negative tweet pertaining to the specified subject. Developed in Python using Tweepy and VADER.
- **Movie Management Application** Built an application to access and manage a database of media information used to catalog movies. Users are able to sort movies based on categories such as genres and actors. Developed in Java and JavaFX using SQLite and SQLite JDBC Driver.

Course projects included:

- Developed custom versions of Linux ps command, make, and malloc using C.
- Implemented an Ethernet learning switch and an IPv4 router using Python and Switchyard.
- Wrote a network intrusion detection system in Python that analyzes pcap files to detect potential ARP spoof attacks, TCP SYN port scans, and TCP SYN floods.
- Created real-time, animated, interactive 3D models using JavaScript and Three.js.

SKILLS (in order of proficiency)

Programming Languages Java, Python, C, Bash, JavaScript, HTML, CSS, SQL

Libraries & Frameworks JavaFX, Three.js, JUnit, Matplotlib, pandas

Tools & Technologies Windows, Linux, Git, Raspberry Pi, Docker, Travis CI

Spoken Languages English (native), Korean (native), Spanish (conversational)