# **Justin Kim**

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## **EDUCATION**

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

- Coursework: Algorithms, Calculus 1 & 2, Computer Engineering, Computer Graphics, Computer Networks, Cryptography, Data Structures, Database Management Systems, Discrete Mathematics, Information Security, Machine Organization, Matrix and Linear Algebra, Operating Systems
- 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
- Completely rewrote the Bash script used to build and maintain Docker Containers running on the Raspberry Pis in order to accommodate easier access through the organization's Android remote control 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**

- **Personal Website** (github.com/kjong/personal-site) Built a personal website to display my resume and projects. Developed with Python and Flask and deployed using AWS Elastic Beanstalk.
- 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.

### 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 Python, Java, C, Bash, HTML/CSS, JavaScript, SQL Libraries & Frameworks Flask, JavaFX, Three.js, JUnit Tools & Technologies Windows, Linux, Git, Raspberry Pi, AWS, Docker, Travis CI Spoken Languages English (native), Korean (native), Spanish (working proficiency)