EDUCATION

University of California, Berkeley | Electrical Engineering & Computer Science B.S. May 2017 Regents and Chancellor's Scholar (about 200 yearly scholars)

SELECT COURSEWORK

Data Structures, Algorithms, Introduction to Artificial Intelligence, Database Systems, Signals and Systems, Machine Learning, Networking, Concepts of Probability, Operating Systems, Computer Security.

TOOLS AND SKILLS

Operating Systems: Windows OS, Ubuntu, Mac OS X.

Programming languages: Python, Java, C, Bash, HTML, CSS, Javascript.

Applications: GitHub, VMWare, Virtualbox, Eclipse, Android Studio, Wireshark, Jupyter Notebook.

WORK EXPERIENCE

RELEASE ENGINEERING INTERN, OKTA

June 2016 - August 2016

- Tools: Python, Bash, Java, Javascript, Docker, Git, Backbone.js, IntelliJ IDEA
- Worked on several different projects for the releng team at Okta: a Python library and command-line tool to interact with Artifactory and Docker using their REST API, a branch cleaner for our Github repositories, and a frontend component built on our CI system to help automate hotfixes.
- Participated and won with a group of four in an intern hackathon with a project that alerts users when suspicious
 activity is detected on their account.

SOLUTION CONSULTING INTERN, KAISER PERMANENTE

June 2015 - August 2015

- Tools: Bash, MS Excel, Excel VBA, MS Access
- Member of the Infrastructure Program-Disaster Recovery (IP-DR) team, working on data analysis projects for productivity and work order management and helping with a DR DNS switching and server isolation project.
- Worked with three team members to automate high-manpower tasks on three projects using Excel VBA and Bash, reducing the total time required to do some tasks from multiple days to less than an hour.

TEACHER ASSISTANT FOR 3D GAME DESIGN, BITSSMART

June 2014 - August 2014

- Assisted instructor in teaching children 8-12 game design concepts upon Minecraft as a platform.

CHILD SWIM SUPERVISOR, ALL-STAR ACADEMY

July 2014 - August 2014

EXTRACURRICULAR WORK

SOFTWARE ENGINEER (ANDROID), ASUC (Cal student body)

September 2014 - current

- Tools: Java, Android, Android Studio, GitHub, Trello
- Collaborated with a shifting team of three students to build and maintain an Android frontend for school services like campus building hours and bus schedules. Began by writing the splash screen to learn Android code and how to integrate existing code. Continued to add new features into the application in sprints of 3-4 weeks such as Flurry integration and extended panels for existing features.

SELECT PROJECTS

Pintos Operating System

- Tools: C, Git, Github, Vagrant, Virtualbox
- Description: Directed, merged, and implemented tasks in a group of four to build three features across one semester on top of a skeleton OS: thread scheduling, user program execution, and a BSD-like file system. Utilized the kernel and existing thread/process code to update hidden features (scheduling, directories) while implementing new syscalls for user-level operations (e.g. exec(), wait(), readdir()). All features were implemented using a UNIX-style concept and a unithreaded address space.

Secure Key-Value Store

- Tools: Python, PyCrypto
- Description: Implemented a key-value store to allow untrusted clients to upload and download as well as share and revoke shares of files. Security principles of confidentiality, integrity, and authentication were ensured using public key encryption, private key encryption, signatures, and MACs. Sharing was implemented with a tree-like "who shared with whom" structure and shared symmetric keys that were deleted on revocation.