

EDUCATION

Bachelor of Science, Computer Science, UC San Diego (June 2018)

Courses: Advanced Data Structures, Software Engineering, Algorithm design and analysis, Probability & Statistics, Theory of Computation, Programming Languages, Operating Systems, Compilers

EXPERIENCE

ServiceNow, San Diego — Software Engineer Intern (Web APIs)

June 2017 – PRESENT

- Implemented an internal feature to restrict access to **REST Endpoints** using ACLs
 - Created a platform wide annotation on Class or Method Level to restrict access to any **REST Endpoint** using that ACL
- Implemented a **custom 5-array Cuckoo Hash Map** to reduce memory footprint created by **GraphQL Schema**
 - **Reduced memory footprint by ~67**
 - Map yielded a **98%** fill factor with **at most 5 lookups**
 - Designed a **Factory Pattern** that returned a byte, short, or int array depending on the size requested
 - Changed the GraphQL Java API to use **Cuckoo Map**, and a **Binary Search Hash Map** depending on size and popularity of the data set
- Tools used: **Java 8, PowerMock, Mockito, Yourkit, REST, IntelliJ IDEA**

PAGrader, UCSD — Full Stack Web Developer (Technical Lead)

September 2017 – PRESENT

- Tasked with managing PAGrader, a website designed to help tutors grade programming assignments
- Implementing functionality to have one account per user no matter how many classes they are enrolled in
- Integrating unit testing into the platform
- Tools used: **npm, Node.js, Express, React, Redux, Enzyme, Chai, MongoDB, IntelliJ IDEA**

Autograder, UCSD — Full Stack Web Developer

Link: autograder.ucsd.edu

January 2016 – September 2017

- Tasked with managing autograder.ucsd.edu, a website used by 3000+ UCSD CSE students to facilitate student-tutor queues and online management of homework grading
- Integrated **Moss** (Measure of software similarity) into Autograder, designed a user-friendly interface replacing old Bash scripts and reduced the time to get the Moss results by more than **50%**
- Implemented Email notification functionality for students working on projects
- Implemented Displaying student & tutor reviews on personal accounts
- Tools used: **Java, JavaScript, Play Framework, IntelliJ IDEA**

Amir Assad

UCSD CSE Department, San Diego — Tutor

January 2016 – September 2017

- Tutor for **Data-structures & O-O Programming, Intro to Java Programming, Unix Lab classes, and Software Engineering**
- Assisted students in implementations of O-O concepts (**polymorphism, inheritance, abstraction, concurrency**), various data structures (**Trees, Linked Lists, Stacks, Queues, Hash Tables**), as well as in using various software tools (**Git, Vim, gdb, Valgrind**)
- Analyzed and debugged students' code, and clarified concepts they are working on in (**Java, C, C++**)
- Help administer midterm/final examination, validating programming assignments, and aided in preparing lab assignments

PROJECTS

Art Collection (Web Application) — Personal Website for an artist

Link: desolate-wildwood-13751.herokuapp.com

May 2016 – PRESENT

- Designed and Implemented the **REST API**
 - Added **CRUD** operations for the paintings and categories
- Designed the form to submit paintings to display with drag and drop functionality
- Using Mongo as the database and created sessions for user
- Tools used: **npm, Node.js, Express, React, Redux, Enzyme, Chai, Mongodb, IntelliJ IDEA**

Sportify — *An Android app that connects two people who want to play the same outdoor activity*

March 2016 - June 2016

- Was recognized twice for the **most contributing team member** by teammates
- Used **Waterfall & Agile** model for designing the applications functionality
- Developed the base code, filtering, and home page which contained a list of all events
- Tools used: **Java, Firebase, Android Studio**

TECHNICAL QUALIFICATIONS

- Languages: **C++, C, Java, Python, JavaScript**
- OS: **Linux, Unix, OS X, Windows**
- Tools: **Express, Node.js, npm, React, MongoDB, Play Framework, Valgrind, Yorkit, PowerMock, Enzyme, Chai, GDB, vim, git, IntelliJ IDEA**

ATTRIBUTES

- **US CITIZEN**