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AMIR ASSAD

San Diego, CA 92122
(805) 630 – 9086
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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)
Jun 2016 – 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 2 custom hash maps to reduce memory footprint created by **GraphQL** Schema
  - ***Reduced memory footprint by ∼67***
  - Implemented an **Open Addressing** hash map
  - This implementation yielded an average of ~2 lookups for 80% load factor
- Implemented a **Custom 5-array Cuckoo Map**
  - Cuckoo 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 the size and popularity of the data set
- Tools used: **Java 8, PowerMock, Mockito, Yourkit, TTD, REST, Intelij IDEA**

PAGrader, UCSD — Full Stack Web Developer
Sep 2017 – PRESENT

- Tasked with managing PAGrader, a website designed to help tutors grade programming assignments.
- Currently implementing functionality to have one account per user no matter how many classes they are enrolled in
- Tools used: npm, node.js, Express, React, Redux, Mongodb, Intellij IDEA

Autograder, UCSD — Full Stack *Web Developer*
Link: ***autograder.ucsd.edu***
Jan 2016 – Sep 2017

- Tasked with managing autograder.ucsd.edu, a website used by 2000+ UCSD CS 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**

UCSD CSE Department, San Diego – Tutor
Jan 2016 – Sep 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**)

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- 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) – An Artists Personal Web Site
Link: desolate-wildwood-13751.herokuapp.com
May 2016 – PRESENT

- Designed and Implemented the **REST API**
  o 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, Mongodb,** *Intellij IDEA*

Sportify (Android Application) – *Connecting People who play the same* sports
March 2016 – June 2016

- **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, Java*
- **OS**: *Linux, Unix, OS X, Windows*
- **Tools**: *Express, Node.js, React, MongoDB, Play Framework, Valgrind, Yorkit, PowerMock, GDB, vim, git, Intellij IDEA*

TECHNICAL QUALIFICATIONS

- **US CITIZEN**