

# ANA SELVARAJ

La Jolla, CA      US Citizen

Github: ana13S

<https://ana13s.github.io/>

## EDUCATION

### University of California, San Diego — *Computer Science*

July 2017 - Present

Expected Graduation: JUNE 2021, GPA: **3.98** (Provost Honors for all quarters)

## EXPERIENCE

### Mitchell International — *Software Engineering Intern*

June 2019 - September 2019

- Formulated a proof of concept for the breakdown of monolithic JBOSS API integration services into microservice-style **Kubernetes** pods. Implemented traffic routing, telemetry, authentication and extensive logging of the clusters with the service mesh **Istio**.
- Automated the creation of **Docker** containers, the deployment of pods in Kubernetes and the routing of ingress and egress traffic with Istio using **Python** scripts.
- Developed microservice API services in JBOSS with test cases automated in Microsoft Test Manager.
- Developed file utilities in **Java** to test the mapping of data fields in XML files.

### UCSD Computer Science and Engineering Department — *CSE 120 Teaching Assistant*

September 2019 - December 2019

- Delivered lectures on class assignments to around 50 students about operating systems concepts, that included multi-threading, semaphores, system calls, memory management, virtual memory, file systems, page replacement algorithms, and process scheduling.
- Assisted students by troubleshooting student operating systems projects.

### Sysvine Technologies — *Software Engineering Intern*

May 2015; May 2016; May 2017

- Developed and debugged a commercial hospital management application in **Java** impacting around 250 patients.
- Redesigned UI in **Javascript** enterprise web applications.

## COMPETITIONS/PROJECTS

### Road Conditions vs Accidents

<https://ana13s.github.io/road-condition-vs-accidents/>

- Mined, cleaned and analyzed data on 2015 car accidents in San Diego and road conditions by mapping each accident/road to latitudes and longitudes with Google's Geocoding API in **Python**.
- Developed an algorithm to geospatially map each accident to a road with the haversine formula and visualized the results using geopandas.

### SD Hacks 2018 - *iOS programmer's calculator (Bitslinger)*

<https://devpost.com/software/bitslinger>

- Developed a mobile app for bit operations with **Swift** in Xcode.
- Collaborated with designers to implement UI compatibility with different iOS devices.

### HackXX 2018 - *Level Up!*

<https://mycscourses-438b9.web.app/>

- Led the development of a **Javascript** web app that uses the API of online bookstores to allow users to compare the prices of Computer Science textbooks and create personalized study plans based on their budget.
- Utilized Google's Firebase to host the website and provide email authentication.

---

## SKILLS

C++   Python   Javascript   Java   C   Swift   SQL   HTML   Linux  
Docker   Kubernetes   Istio   React   Maven   Ant   Git   Android   Unity   Angular   Unreal