# RAY SAKANOUE

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## **EDUCATION**

#### University of California - San Diego

Sept. 2018 - June 2022

B.S. Computer Engineering 2022

Relevant Coursework: Data Structures and Algorithms, Discrete Mathematics, Computer Organization and Systems Programming, Software Engineering, Advanced Software Engineering

Major GPA: 3.2

# **EXPERIENCE**

#### Underidea, Software Developer (Volunteer/Non-profit)

Feb. 2019 - Current

-Actively provide technical support and manage projects to support large-scale artist collaborations.

-Current project: a full-stack system implementing the atomic design methodology for an official website of a global non-profit creator/artist organization looking to replace a third-party website-building service with a website built from scratch.

-Developed the frontend for past projects in a team of 3.

### myDevices, Software Engineering Intern, Burbank, CA

June 2019 - Mar. 2020

-Tested and optimized the company's web application that provides users data from their registered IoT devices as a **Progressive Web Application** using service workers, allowing them to be downloaded as apps on phones without a need for native apps.

- -Implemented our software on IoT devices that were planned to be compatible with the web application.
- -Created a site reliability microservice that reports company's cloud API health and uptime
- -Tech Stack: JavaScript, Workbox, Docker, Golang, HTML, CSS, Websockets

-Tech Stack: TypeScript, Next.js, ZEIT Now, React, Node.js, HTML, SCSS

#### UCSD CSE Department, Student Research Assistant - Web Development

Mar. 2020 - Oct. 2020

- -Developed the frontend of a web application using React and Typescript to display data obtained from devices in buildings that uses Brick, which is a uniform metadata schema for buildings.
- -Created data plots shown by applying Grafana's Dashboard API and embed panels.
- -Created a metadata view to organize and display device data queried using SPARQL.
- -Tech Stack: TypeScript, React, HTML, SCSS, SPARQL

# **SKILLS**

### PROGRAMMING LANGUAGES: C, C++, C#, JavaScript, HTML, CSS, Python, Golang, Java, TypeScript

FRAMEWORKS: Google API, React, OpenCV, Next.js, Node.js, Workbox, AWS, ZEIT Now

TOOLS: Git, Unity 3D Engine, Google App Engine, Vim, Unix, Android Studio, Arduino, Docker, JUnit, Espresso, Roboelectric, TravisCl, Zenhub, Github Projects, SPARQL

# **PROJECTS**

### UCSD Schedule Planner Website (https://sdschedule.com)

Oct. 2018 - June 2019

### Frontend Developer (Team of 7)

- -A website intended for UCSD students that generate academic schedules according to the user input of courses and time preferences.
- -Created frontend components in collaboration with the designer of the team.
- -Developed a feature that calls Google's **Account Authorization** and saves the schedule to the user's **Google Calendar** as events.
- -Tech Stack: Javascript, React, Google API

### MyMealMaker

Oct. 2019

### Backend Developer (Team of 3)

- -An Android app that uses Amazon Rekognition to recognize food ingredients using a phone camera and suggest dish recipes scraped from the internet.
- -Developed the backend of the app, learning and integrating Amazon Rekognition into the process of converting camera images into a list of food ingredients.
- -Tech Stack: Amazon Rekognition, Android Studio, Java

### Walking Fitness App

Jan. 2020 - Mar. 2020

- -An Android app that uses Google Fitness API to record physical steps made by the user, record walking routes, share data with other users, and create group walking sessions with other users.
- -Developed the backend to handle Google Fitness API, and applied Firebase to store data and allow sharing this data among different users.
- -Tech Stack: Firebase, Google Fitness API, Android Studio, Java

# **AWARDS**

### Herndon Science Competition - 1st Place, Aerospace Corporation

May 2018

**-Project used:** Computer Simulation of Self-Reconfigurable Modular Robots (listed above)

### Mini Urban Challenge Regionals - 1st Place, DooLittle Institute, US Airforce

Apr. 2016

- -Robot was able to autonomously stay within the boundaries of the road using light sensors and **PID controls**, navigate the city, avoid collisions with other competitors' robots, and reroute in response to road-blocks.
- -In a team of 4, I worked as the only programmer in the team and developed all code used in this competition.
- -Tech Stack: Robot C (C variant), LEGO MINDSTORM EV3