

# Washington Zhao

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## Education

**University of Southern California**

Class of 2022

B.S Computer Science

GPA: 3.58/4.0

## **Relevant Coursework:**

**Computer Science:** Data Structures and Object-Oriented Programming, Introduction to Algorithms and Theory of Computing, Discrete Methods in Computer Science, Principles of Software Development

## Technical Skills

**Highly Proficient:** C++, Java, Python, JavaScript, HTML, XHTML, CSS, MySQL, Pandas, D3.js, Dash/Plotly,

**Proficient:** MERN stack (Mongo, Express.js, ReactJS, Node), Jekyll, Flask, Tailwind, Bootstrap, Git, Tensorflow

## Experience

### **Software Engineering Intern**

June 2020 – Present

NASA Jet Propulsion Laboratory

Pasadena, CA

- Developed a full-stack internal **Node-based application** within NASA's Mission Assurance Directorate to be used for multiple NASA teams' engineering processes tracking
- Revised upon existing codebase frameworks to improve development time and application scalability

### **Research Assistant**

Jan 2020 – May 2020

USC Information Sciences Institute

Marina del Rey, CA

- Developed legal-domain adapted **low-resource machine learning model** utilizing **transfer learning** to assist refugees at the Southern border speaking niche languages

### **Course Producer/Teaching Assistant**

Aug 2019 – May 2020

USC Viterbi School of Engineering

Los Angeles, CA

- Held weekly office hours to aid students enrolled in Discrete Methods in Computer Science course
- Co-led discussion section of 70 students on course material (graphs, trees, algorithm complexity etc.)

### **Advanced Analytics Intern**

May – Aug 2019

The Raytheon Company

Andover, MA

- Leveraged data visualization libraries such as **D3.js**, **Dash/Plotly**, and **Pandas** to display material flow status for production management analytics on an interactive web application
- Reduced company's sunk costs resulting from asset misallocation and saved up to 1 hour of time per employee through updating internal database structure in **SQL** and refining the front-end asset allocation dashboard

## Projects

### **Let's Talk About Corona**

<https://www.coronastinks.com>

- Led 5-person development team using **MERN-stack** to create a website compiling nationwide Coronavirus mutual aid resources
- Curated internal development best-practices and organized meetings regarding site development

### **Spark SC Home Page**

<https://www.sparksc.org>

- Worked on team to develop organization website using **Jekyll** and **Node**
- Improved upon modularity of existing codebase and implemented new frameworks to simplify future site updates

### **HealthClear**

- A progressive web app allowing users to compare costs of medical facilities in their area for specified procedures
- Leveraged **RESTful API using Flask**, **Python HTTP scraping libraries**, and various **Google APIs**

## Involvement

### **Executive Lead/Web Mechanic**

Jan 2020 – Present

Spark SC

- Developed & maintained all websites regarding the organization and initiatives such as <https://accelerator.sparksc.org>; worked closely with graphics team to develop quality UI/UX practices
- Led Startup Career Fair, a fully student-run career fair inviting over 50 local startups to network with students

### **AI Researcher**

Aug 2019 – Present

USC Center for AI in Society Student Branch (CAIS++)

- Work closely with UCSD Kawasaki Disease Research Center to develop image recognition model to help prevent misdiagnosis of Kawasaki Disease, the leading cause of acquired heart disease in children