MELANIE WONG

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EDUCATION

University of California, Santa Cruz

- **M.S. Computer Science and Engineering** Expected June 2021
- **B.S. Computer Science**, graduated in 3 years with Highest Honors, Cum Laude, GPA: 3.83/4.00 June 2020
  - **Coursework**: Algorithms & Data Structures, Distributed Systems, Computer & Network Security

WORK EXPERIENCE

Graduate Teaching Assistant | *UC Santa Cruz Engineering* Sep. 2020 – Present
- Assist with instruction and grading for CSE 150: Introduction to Computer Networks class of 150+ students

Global Technology Summer Analyst | *Bank of America* | *New York, NY (remote)* June 2020 – Aug. 2020
- Scraped 30+ financial documents to build an NLP language model (corpus) using Python
- Built a document search engine with similarity scoring and keyword highlighting

Economics Lab Lead Programmer | *UC Santa Cruz LEEPS Lab* May 2020 – Present
- Designing and developing software to support research in an experimental economics lab
- Implementing web platforms for conducting experiments using oTree, Python and Polymer.js

Undergraduate Researcher | *UC Santa Cruz Engineering* Sep. 2019 – Present
- Developing web security service for tracking millions of web certificates using compact data structures in C++
- Analyzing collected data using Python libraries to evaluate performance and memory efficiency

Web Development Lead | *UC Santa Cruz Tech4Good Lab* Mar. 2019 – Present
- Building platforms for supporting communities using Angular, NgRx, and Firebase from Figma prototypes

Computation Intern | *Lawrence Livermore National Laboratory* | *Livermore, CA* June – Sep. 2019
- Designed and developed a web application using React for tracking laser facility maintenance
- Implemented REST API in Java, API calls using Axios, and redesigned UI for improved usability

PROJECTS

Better Together | *VMware CodeHouse Winner* | *Palo Alto, CA (remote)* Aug. 2020
- One of 20 finalists selected from across the US for a 48-hour hackathon targeting diversity & inclusion and COVID-19
- A community-driven app with COVID data dashboard, job map & chatbot to support local businesses during the pandemic
- Used React.js for front-end, Flask for microservices back-end, and deployed using Kubernetes
- Voted MVP of my team; voted most creative idea, most technically advanced, and best UI/UX design by all teams

Distributed Key-Value Store | *Distributed Systems Final Project* June 2020
- Implemented a fault-tolerant key-value store in a team of 4 using Python, Flask, and Docker

Internet of Things Security Analysis | *Computer Security Final Project* Mar. 2020
- Analyzed network traffic and developed visualizations of captured packets from a smart power strip using Wireshark

Daily Messages Jan. 2020
- Automated daily SMS using Java, Microsoft Azure Functions, and Twilio API to receive customized weather reports

JPMorgan Chase & Co. Code for Good | *2nd Place* | *Jersey City, NJ* Oct. 2018
- Created a mobile web application using React to track and gamify volunteering for the nonprofit, Green City Force

TECHNICAL SKILLS

- ***Programming:*** Experience with Java, C++, Python, JavaScript, TypeScript, HTML, CSS, SCSS; Familiar with Golang, SQL
- ***Frameworks:*** Experience with React.js, Angular, Polymer.js, Flask; Familiar with Vue.js, Express
- ***Technologies:*** Linux/Unix, Git, Node.js, Android Studio, Docker, Kubernetes, Google Cloud Platform, AWS, Wireshark
- ***Languages:*** English (fluent), Cantonese (proficient), Mandarin (proficient), Korean (beginner)

ACTIVITIES & AWARDS

Guest Speaker | *VMware's Tech for Good Talks* Sep. 2020
Building Belonging Research Fellowship Award | *UCSC Institute of Social Transformation* May 2020 – Present
Rewriting the Code Fellow June 2019 – Present
Goldman Sachs Engineering Essentials Fellow | *New York* | *one of 73 students selected out of 1500+ applicants* May 2019
- Created a stock visualization application using React, Jersey RESTful web services, JSON, and Maven

NCAA Track & Field Student-Athlete | *Two-time National Junior Olympian* June 2017 – Jan. 2020