




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
 - **Graduate Coursework (during undergraduate)**: Network Security, Seminar on Networks
 - **Undergraduate Coursework**: Algorithms & Data Structures, Software Engineering, Computer Security, Machine Learning, Distributed Systems, Coding for Social Good

WORK EXPERIENCE

Global Technology Summer Analyst | *Bank of America* | *New York, NY (remote)* June 2020 – Present

- Scraped over 30+ financial documents to build an NLP language model (corpus) using Python
- Built a document search engine with similarity scoring and keyword highlighting

Undergraduate Researcher | *UC Santa Cruz Engineering* Sep. 2019 – Present

- Proposed, designed, and developing web security service using compact data structures in C++
- Analyzing collected data using Python libraries to evaluate performance and memory efficiency

Undergraduate Research Lead | *UC Santa Cruz Tech4Good Lab* Mar. 2019 – Present

- Leading web development team to build and scale platforms for supporting our communities
- Developing applications using Angular, NgRx, and Firebase from Figma prototypes

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

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 job search and chatbot to support local businesses and communities during the pandemic
- Used React.js for front-end, Flask for microservices back-end, and deployed using Kubernetes in Docker (kind)
- 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

Daily Messages Jan. 2020

- Automated daily SMS using Java, Microsoft Azure Functions, and Twilio API to receive customized weather reports

LiveColor | *Software Engineering Final Project* Dec. 2019

- Built an Android application in Java that allows picking, editing, and saving colors from captured images

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 Go, SQL
- **Frameworks**: React, Angular, Vue, Polymer.js, Express, Flask
- **Technologies**: Linux/Unix, Git, Node.js, Docker, Kubernetes, Google Cloud Platform, AWS
- **Languages**: English, Cantonese, and Mandarin

ACTIVITIES & AWARDS

Belonging Research Fellowship Award | *UCSC Institute of Social Transformation* May 2020 – Present

- Lead programmer to develop software for research in LEEPS experimental economics lab

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

Rewriting the Code Fellow June 2019 – Present

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