

Melody Chen

Website: melodychn.github.io
Los Angeles, CA

Email: meloncattiel@gmail.com

Phone: (213) 298 6849

Github: melodychn

Education

University of California, Los Angeles

Expected June 2022

Bachelor of Science in Computer Science; GPA: 3.85/4.00

Relevant Coursework: Data Structures and Algorithms, Programming Languages, Machine Learning, Operating System Principles, Probability and Statistics, Computer Organization, Computer Systems Architecture

Honors: UPE(CS Honor Society), HKN(Electrical & Computer Engineering Honor Society), Dean's Honors List

Skills

Technical Skills: C++, C, Java, Python, JavaScript, OCaml, Express, React.js, MongoDB, MySQL, Verilog

Languages: English (fluent), Mandarin Chinese (fluent), Taiwanese (fluent), Japanese (JLPT N2 Certified), Spanish

Work Experiences

Google, Mountain View, CA

6/2020 ~ 9/2020

STEP Engineering Intern

- Part of the Google **Play Analytics** team working on time series data monitoring enhancement project under Analytics Infrastructure
- Design and implement backend **data processing** pipeline in **Java** that is tested with **JUnit** and **Mockito** in addition to utilizing **GCP** tools such as Cloud Scheduler for **batch operations** and Cloud Storage for distributed file system
- Complete entire development process, including writing design documents, sending out user surveys to over 100 full-time engineers, testing and implementation, code reviews, and final presentations

Human Computer Interaction Research Group, UCLA

NSF REU Summer Research Intern

6/2019 ~ 9/2019

- **Co-Author** of the paper, "CheXplain: Enabling Physicians to Explore and Understand Data-Driven, AI-Enabled Medical Imaging Analysis", published at **ACM CHI Conference 2020 (24.3% Acceptance Rate)**
- Designed and implemented the high-fidelity prototype for CheXplain with **React.js** and **Firebase** used to present to medical professionals during co-design and user study sessions, and at the ACM CHI Conference
- Analyzed TensorFlow CheXpert model to experiment with saliency map to obtain annotations on Chest X-ray Images
- Sorted over 60,000 patients' Chest X-ray records for data analysis with **Bash** and **Python**

Extracurricular Activities

DailyBruin, UCLA Student Media

10/2019 ~ Present

Assistant Bruinwalk Director

- Lead student developer team working on UCLA's most popular professor and apartment review website (bruinwalk.com) with **50k average monthly users**
- Implementing redesign of the site written in **Django** with designers and leading team of front/backend developers
- Monitor traffic to ensure all containers of the site (ex. web, Elasticsearch, Postgres database) are in healthy state through **Docker** and **Rancher**

DevX, UCLA

10/2019 ~ 4/2020

Backend Developer

- Worked on DrugDecider, a web-based application for patients of UCLA Health to determine customized side effects of drugs in real time with ML in collaboration with **UCLA Lab of Computational Neuropsychology**
- Integrated ML model written in **R** into backend API of web application build with **Node**, **Express**, and **MongoDB** to query instantaneous results to feed frontend interface built with **React.js**

Engineering Projects

Resistor Reader, LA Hacks

3/2019

- Implemented and designed **computer vision** application able to identify color bands of resistors to calculate the resistance of the resistor given a clear image in **Python** through numpy, scipy, and matplotlib

Smart Lock, IdeaHacks

1/2019

- Built a SmartLock with features such as **facial recognition** and **motion detection**, through the use of components and APIs such as the Raspberry Pi, gyroscope, and Microsoft Azure Facial Recognition API