Melody Chen

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Education

University of California, Los Angeles Expected June 2022

Bachelor of Science in Computer Science; GPA: 3.84/4.00

Relevant Coursework: Data Structures and Algorithms, Operating System Principles, Logic Design of Digital Systems, Computer Organization, Computer Systems Architecture

Honors: HKN(Electrical/Computer Engineering Honor Society), Dean's Honors List(2018-2020)

Skills

Technical Skills: C, C++, JavaScript, Python, Java, Express, React.js, MySQL, Verilog, Arduino, Raspberry Pi

Languages: English(fluent), Mandarin Chinese (fluent)**,** Taiwanese(fluent), Japanese (JLPT N2), Spanish(4 years)

Work Experiences

Human Computer Interaction Research Group, UCLA

NSF REU Summer Research Intern 6/2019 ~ 9/2019

- Worked under Professor Xiang Chen with PhD Candidate Yao Xie on the **XAI**(Explainable AI) project CheXplain
- **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**
- 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

Undergraduate Researcher 3/2019 ~ Present

- Analyze TensorFlow CheXpert model to implement 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

DevX, UCLA 10/2019 ~ Present

Backend Developer

- Working 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**
- Working on integrating 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**

DailyBruin, UCLA Student Media 10/2019 ~ Present

Software Developer for bruinwalk.com under Daily Bruin Online

- Part of student developer team working on UCLA's most popular **professor and apartment review website** with **50k average monthly users**
- Working on implementing redesign of the site written in **Django** through templating with student UI/UX designers

Eta Kappa Nu(Electrical & Computer Engineering Honor Society), UCLA 4/2019 ~ Present

Officer/Webmaster

- Maintain and update the member website for the Electrical and Computer Engineering Honor Society of UCLA
- Working on re-building the website currently built with Ruby on Rails using React.js, Flask, and PostgreSQL

Engineering Projects

Resistor Reader, *LA Hacks* 3/22 ~ 3/24/2019

- 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* 1/18 ~ 1/20/2019

- 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