# Lawrence Wang

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Enthusiastic about combining neuroscience and programming to create a meaningful impact

#### **EDUCATION**

## **University of Southern California**

Los Angeles, CA

Bachelor of Science in Computational Neuroscience (Dean's List)

August 2021-May 2025

• Relevant courses: Neurobiology

#### **EMPLOYMENT HISTORY**

#### Harvard School of Dental Medicine: Cui Lab

Boston, MA

Undergraduate Student Fellow

June 2023-Present

- Developed a Shiny-based web application in R which analyzes the gene expression data from thousands of genes following exposure to 86 distinct cytokines and enables users to study their own datasets
- Worked on UI and data analysis through RShiny and uploaded the application to a VM's port through ShinyProxy/Docker
- Utilized Nginx to create a reverse proxy to connect the application to the web
- Presented the application and worked with other researchers to make the website comprehensive and simplistic

#### Keck School of Medicine of USC: Charaziak Lab

Los Angeles, CA

Student Researcher

Oct. 2022-Present

- Researched RedCap and i2b2 for data collection and presented the pros and cons of each possibility
- Created scripts using Python and Shell to extract and upload data from over 100 patients to a database on RedCap
- Learned about middle ear functions and how defects in the eustachian tube can impact hearing through sitting in on patient appointments
- Worked with RedCap API to extract patient data to local machine for detailed analysis of data through graphing

## University of California, Los Angeles: Health IT

Los Angeles, CA

Student Intern

June 2022–August 2022

- Helped build up UCLA Health's HPC infrastructure for researchers to work with genomic data
- Created tests for the newly-formed HPC Clusters in Shellscript and Python including update tests as well as other node maintenance tests
- Created automation to perform a series of tests on upcoming nodes using Expect, Python, and Shell to ensure proper bootup of nodes with appropriate tools and programs installed

## **Massachusetts General Hospital**

Boston, MA

Shadowing Resident

- Dec. 2019-Dec. 2019
- Learned procedures such as chest compressions, CT scans, and various ways to combat brain hemorrhages
- Learned how to empathize with family members and loved ones who are undergoing harsh procedures

### **PROJECTS**

## EduDine

- Built a cross-platform mobile application using Kotlin Multiplatform Mobile (Andriod/iOS)
- Allows the user to access the current and future menu of a given dining hall at a given college and choose certain filters, favorites, and set notifications

## Automation

- Created scripts to do tasks such as opening a Google Doc and writing to Google Sheets
- Created a script using Shell and Expect to close and restart a Minecraft world with a new seed on any single user's death

#### ADDITIONAL SKILLS

- Java, Python, C++, R, Expect (TCL Extension), Doctor Racket, Javascript, Shellscript, HTML, Swift, Kotlin
- Fluent in English and Chinese (Shanghainese) and good working knowledge in Chinese (Mandarin) and French

#### **HOBBIES/INTERESTS**

- Running: 5 years of actively running and co-hosted regular runs during the pandemic for around 50 children aged 6-14
- Sleight of hand: Created personal tricks based on ideas from videos and tutorials and performed for friends and family