

Sacaar Jain

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EDUCATION

University of California, Los Angeles (UCLA)

Los Angeles, CA | Graduating December 2024

B.S. in Computer Science

GPA: 3.8/4.0

Relevant Coursework: Data Structures and Algorithms, Programming Languages, Computer Networks, Fundamentals of Artificial Intelligence, Computational Genomics, Data Management Systems, Theory of Computing, Software Construction

PROFESSIONAL EXPERIENCE

Full-Stack Software Engineering Intern | *Scholarshine* (Lake Forest, CA)

6/2024 – Present

- Developing a mobile application to digitize paperwork, check-in processes, and communication between parents and preschool teachers for a local network of preschools as part of a two-person team
- Designing and implementing the application from the ground up, including frontend and backend development with React Native, JavaScript, and Google Firebase, as well as creating and managing the database schema
- Conducting thorough testing using Expo Go, Android Studio, and Apple TestFlight, actively participating in Scrum development cycles using Jira, and tracking progress to ensure high-quality and timely delivery

Undergraduate Researcher | *The Golshani Lab at UCLA Health* (Los Angeles, CA)

3/2024 – Present

- Working on an application that streamlines the process for novel voltage-imaging processing, allowing for robust monitoring of neural activity in neuron samples of mice
- Building a GUI using Python and its many packages including, but not limited to, PyQt5, numpy, etc to perform complex mathematical computations required in the voltage-imaging process
- Future development includes incorporating Machine Learning to identify neurons and performing trace extraction

Full-Stack Software Engineering Intern | *XCare* (Lake Forest, CA)

6/2022 – 12/2023

- Utilized low code app building options to create a baseline application showcasing necessary organization and UI of potential future mobile application
- Collaborated with software engineers to develop backend infrastructure creating an MVP in Node.js and Express, while also improving frontend design in React Native under a MERN stack framework
- Conducted bug testing on iOS and Android platforms to assist development of application and ensure quality of MVP before presentation

Undergraduate Researcher | *Elegant Mind Club Lab* (Los Angeles, CA)

3/2023 – 6/2023

- Focused on improving object-detection models through real-time 3D depth perception by synchronizing drones with stereoscopic first-person view systems
- Built an experimental pipeline utilizing live video stream feed from a Tello drone into Vive VR headsets on Unity VR, ODLC software written in Python to detect objects, and a Raspberry Pi to compile data collected from motion detection cameras and the VR headset on user movements
- Research helped in optimizing real-time ODLC processes and enhancing video quality of pipeline

TECHNICAL PROJECTS

TrailQuest App | ([TrailQuest Devpost](#))

4/2023 – 4/2023

- Developed an app using React Native, Firebase & Firestore, ChatGPT API, RapidTrails API, and Google Maps API that motivates users to explore their city using our Quests system, assigning trails based on user's requirements

Brewin Language Interpreter | ([Brewin Interpreter GitHub](#))

9/2023 – 12/2023

- Wrote an interpreter using Python for a new programming language called Brewin from scratch incorporating dynamic scoping, dynamic typing, first class functions, prototypal inheritance, etc

QED-AI (Quod Erat Demonstrandum-AI) | ([QED GitHub](#))

4/2023 – 4/2023

- Developed a website using React, MathPix API, and ChatGPT API allowing students to verify any math proof by inputting text and/or images of math work

MyCourse Website | ([MyCourse GitHub](#))

9/2022 – 12/2022

- Utilized a MERN stack framework to build a website simplifying UCLA's planner system using UCLA's APIs, combining the functionality of multiple websites for selecting classes into one

SKILLS

Programming: C++, Python, JAVA, React/React Native, JavaScript, Node.js/Express, HTML, CSS, Verilog

Technical: MongoDB, DynamoDB, Adalo, Unity VR, Arduino, Raspberry Pi, Adobe Lightroom, Basys 3, SolidWorks