Brian Liu

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EDUCATION

University of California, Los Angeles

June 2026

Bachelor's of Science in Computer Science and Mathematics, GPA 3.75

Los Angeles, CA

• Relevant Coursework: Data Structures and Algorithms, Object Oriented Design, Advanced C++ Programming, Software Construction, Optimization, Operating Systems

TECHNICAL SKILLS

Languages | C++, Python, Javascript, Typescript, HTML/CSS, SQL

Technologies | React, NextJS, NodeJS, Svelte, SvelteKit, GraphQL, REST, FastAPI, Express Developer Tools | Git, MongoDB, SQLite, Docker, Prometheus, PostgresSQL, npm, VS Code

EXPERIENCE

Tutor April 2025 – Present

Upsilon Pi Epsilon

Los Angeles, CA

• UCLA honor society for computing disciplines, tutoring UCLA students in math and computer science

Software Engineer Intern

Jan 2024 - Sept 2024

San Jose, CA

San Jose State University • Designed and implemented RESTful APIs to support listing and searching stored URLs in SQLite, set up threading to efficiently process queue of requests

- Implemented query and API logging with Prometheus to track metrics and scalability of URL shortening service for **500**+ member club
- Scrapped 300+ teacher profiles and reviews for a course review search platform for SJSU students and set up insertion and retrieval queries in PostgresSQL, and routing for professor/course pages

Software Engineer Intern

Sept 2023 - Nov 2023

 $CodeDay \ x \ Supabase$

Remote

- Debugged analytics log issue affecting 1000+ users hosting Supabase with Docker-Compose
- Identified a root cause to the difference in query languages between Supabase's server-hosted using PostgresSQL and self-hosted projects using BigQuery, leading to streamlined debugging

Tech Lead August 2023 - Sept 2024

Google Developer Student Club

Cupertino, CA

- Hosted DA Hacks 2.0, Google San Jose DevFest, promoting in-person and on social media for 200+ participants with record breaking attendance
- Led LeetCode workshops using C++ and Python, equipping members with strong interview skills

Projects

BruinBrawlers

- Data analytics application for UCLA students to track in game statistics, meet friends, and create posts with React, Typescript Nextjs, MongoDB
- Set up database models and analytics tracking for match history, winrates, trophies gained, modeled data on graphs using Chart-js, integrated backend logic for fetching, uploading, edit, delete features

CollegeMart

- Created a C2C web marketplace for college students using React, JavaScript, and PostgresSQL
- Boosted server performance and database query efficiency by 50% through improved indexing and implementing lazy loading

WorthIt

- Built a mobile app that scans and looks up prices, supporting currency exchange in foreign markets
- Achieved 90% image-to-text translation using Pytesseract OCR and gemini-1.5-flash
- Implemented Python FastAPI backend for product and currency lookup, Pytesseract and Gemini for image text translation and interpretation, and React Native frontend