Tyler Tran

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EDUCATION

University of California, Los Angeles (UCLA) Los Angeles, CA

Bachelor's in Computer Science and Linguistics *Expected Graduation: June 2025*

- GPA: 3.5

TECHNICAL SKILLS

Languages: Python, C, C++, JavaScript, TypeScript, Go/Golang, C#, HTML, CSS, SQL
Frameworks/Libraries: Node.js, React.js, Django, Express.js, .NET Core
Tools/Platforms: Docker, Kubernetes, AWS, Git, GitHub, Linux
Databases: PostgreSQL, MySQL, Firebase, MongoDB, AWS: Aurora, RDS

EXPERIENCE

Daily Bruin Oct 2023 - Present

Software Engineering Intern *Los Angeles, CA*

- Implemented an automated data synchronization solution using a CI/CD pipeline for the Daily Bruin's content management system, resulting in a 42% latency reduction for real-time updates and deployment time by 20%.
- Directed a team in developing an internal sources citation manager for journalists, utilizing MongoDB and Docker containerization to improve accessibility for Daily Bruin Staff to cite sources up to 30% faster.
- Deployed and maintained Gallery-maker on Kubernetes, enabling Photo team to publish photo galleries and updating the Django model to streamline the relational data modeling.

ACM TeachLA Apr 2023 - Mar 2024

Software Developer *Los Angeles, CA*

- Constructed a web-based integrated development environment (IDE) featuring in-browser support for Python, JavaScript, HTML, and React using TypeScript and Go for seamless multi-language coding and development.
- Debugged critical issues within the front-end UI and established a DevOps CI/CD pipeline through GitHub Actions to run automated error checks, reducing runtime compilation errors by 26%.

Meristream Jun 2023 - Sep 2023

Software Engineering Intern *Remote*

- Implemented a scalable database infrastructure from scratch, tailored to manage relational data across subscriptions, customers, and user transactions, accommodating over 50,000 users.
- Optimized page load times by 15% and reduce internal memory usage by 23% using Next.js server-side rendering.
- Established secure communication between front-end UI states, Stripe API and AWS Aurora by developing an Express.js API to ensure reliable, idempotent operations for secure data transmission.
- Led the complete development cycle of the IoT device login enforcement restriction feature, and configured AWS IoT Device Management services to enhance security for selected payment options and access control.

PROJECTS

Little Free Libgen | *C++, React.js, Node.js, MongoDB, Git* *Devpost* | *GitHub*

- Developed a library unit accessible via a mobile app, facilitating book exchange via ISBN barcode scanning. Units are unlocked/locked, updating catalogs, and their locations can be explored on the app's map page.
- Programmed an Arduino Nano 33 IoT in C++, enabling wireless communication via HTTP requests within the mobile app over WiFi, a solenoid lock, OLED display for user instructions, and a buzzer for audio feedback.
- Implemented an Express API to facilitate communication among the frontend, MongoDB backend, and Arduino Nano, enabling bidirectional updates between devices.

Retainify | *Flutter, Apache Hive, Notion API, Cohere LLM* *GitHub*

- Developed a cross-platform mobile app that integrates with a user's Notion account to synthesize review questions using AI and send timed notifications for spaced repetition studying.
- Established ETL pipelines to provide raw text data to the Cohere LLM and API endpoints, enabling users to interact with AI generated text on the front-end UI in an informed manner.

ColorCue | *JavaScript, TypeScript* *Devpost* | *GitHub*

- Won 2nd place at the annual QWER HACKS Hack-a-thon by launching a Firefox extension designed to enhance web accessibility for users with color vision deficiencies.
- Refactored a daltonization algorithm publication to fine-tune the calibration of every individual color pixel hex-code within the Document Object Model (DOM), enabling the adjustment of images and background colors.