

Elias Thomas

949-735-1727 | echthomas05@gmail.com | elithomas.dev | in/eli-thomas | github/eliThomass

EDUCATION

California State University, Fullerton

B.S. in Computer Science — GPA: 3.87 / 4.0

Expected Graduation: May 2027

Relevant Courses: Software Engineering, Data Structures & Algorithms, Files & Databases, Front End Engineering

Fullerton, CA

August 2023 – Present

EXPERIENCE

Controls and Data Engineer

Aug. 2025 – Present

Formula SAE

Fullerton, CA

- Design and implement core firmware for the vehicle's Electric Throttle Control (ETC) system using C++ on Arduino, resulting in a **6%** increase in engine efficiency via optimized throttle mapping.
- Engineer the team's official website (csuftitanracing.com) using **React.js**, migrating from static HTML to a scalable SPA to improve recruitment and sponsor visibility.
- Collect and process telemetry from the Engine Control Unit (ECU) to evaluate engine performance, collaborating with a multidisciplinary team of **20+** engineers to integrate hardware sensors.

Algorithm Officer

June 2025 – Present

Association for Computing Machinery (ACM)

Fullerton, CA

- Lead weekly workshops on fundamental data structures and algorithms for 40+ students, delivering over **10** sessions on topics including arrays, trees, and graphs.
- Develop and present a curriculum of **30+** LeetCode-style problems to strengthen members' problem-solving abilities and prepare them for technical interviews.
- Provide targeted one-on-one mentorship during workshops, providing guidance on effective debugging, professional coding practices, and advanced algorithmic thinking.

Barista

Oct. 2023 – Present

Starbucks Coffee Company

Ladera Ranch, CA

- Provide exceptional customer service in a fast-paced environment, serving **500+** customers per day while maintaining speed and precision in high-volume transactions.
- Coordinate with team members to streamline operations, helping the store consistently exceed targets for order accuracy and speed during high-volume shifts.

PROJECTS

Air Quality Monitoring System [Github] | C++, ESP32, Django, MySQL, React

Jan. 2026

- Developed an end-to-end IoT system using an **ESP32** and **BME680** sensor to monitor VOCs, CO2 equivalents, temperature, and humidity in real-time.
- Built a **Django** backend with a **MySQL** database to ingest and store sensor data via authenticated HTTP POST requests at 15-minute intervals.
- Designed a responsive **React** dashboard to visualize environmental trends and historical data, deployed on a **Linux home server** for 24/7 monitoring.

Group Chat Web Application [Github] | Python, FastAPI, PostgreSQL, React, Websockets

Sept. 2025

- Built a full-stack messaging platform with **JWT**-secured authentication, group chats, invitations, and user management.
- Designed a **PostgreSQL** schema (accounts, chats, messages, invites) with **SQLAlchemy** ORM to ensure persistence, relational integrity, and data validation.
- Integrated a **React** frontend and implemented **WebSockets** for real-time chat messaging, enabling live updates across multiple clients.

TECHNICAL SKILLS

Languages: Python, JavaScript/TypeScript, C++, SQL, HTML/CSS, Assembly

Frameworks & Libraries: FastAPI, Django, React.js, SQLAlchemy

Databases & Platforms: MySQL, PostgreSQL, Supabase, Vercel

Developer Tools: Git, GitHub, Linux, Vite, VS Code, REST APIs, JWT, Vim, Agile Methodology