

# Elijah Croft

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## EDUCATION

### California State University Fullerton

Double Major: B.S. Computer Science, B.A. Philosophy

Fullerton, CA

Expected May 2027

## EXPERIENCE

### Robotics Coach/Programming Instructor

March 2025 - Present

Magikid Robotics Lab

Tustin, CA

- Coach for competitive robotics team, leading them to **State and World championships**.
- Teach students (ages 8–16) **Python** and **C++** fundamentals weekly.
- Designed leveled exams to test students robotics understanding.
- Integrate **AI concepts** into robotics coaching, focusing on the development of autonomous systems and decision-making algorithms.
- Provide AI coaching to students, helped implement a **Markov Decision Process** to a high stakes robot to ensure optimal scoring.

## PROJECTS

### ScuffedAI | Python, OpenAI API, Discord API, Linux

Mar. 2023

- Powers 100+ daily interactions across Discord servers, mimicking a streamer's persona.
- Integrated OpenAI API for dynamic, real-time conversations and personality emulation.
- Deployed the bot on a self-hosted **Arch Linux server** for 24/7 operation.
- Implemented passive moderation to detect and suppress hate speech, fostering a safe and inclusive community.

### SafeSubstance | Next.js, TypeScript, Tailwind CSS, Git

Oct. 2024

- Designed and developed a solo project that provides fast, accessible drug interaction checks for harm reduction. Hosted at safesubstance.org
- Built a clean and responsive UI using Tailwind CSS and **implemented logic with Next.js and TypeScript**.
- Created and managed a structured substance interaction dataset to power accurate, real-time lookups.
- Deployed on Vercel and maintained the platform, receiving over **500 weekly visitors**.

### Stars Near You | Next.js, Supabase, Tailwind CSS

Apr. 2025

- Social media app built at a hackathon that visualizes friendships as constellations.
- Developed the backend, including **user authentication** and **database management**
- Used Supabase for data storage and NextAuth/GithubAuth for seamless login.

### Dorm Dash | C++, Python, ROS2, Raspberry Pi 5, LiDAR

Aug. 2025

- Engineered an autonomous robot to traverse CSUF dorm hallways, avoid obstacles, and deliver payloads to designated doors.
- Implemented **LiDAR-based localization**, **ROS2 navigation stack**, and AI camera vision for real-time decision making.
- **Designed power system** using a 12V rechargeable ion battery, BMS, and motor driver to ensure safe and efficient operation.
- Engineered the chassis with an aluminum frame for durability and a 3D-printed filament basket for secure payload delivery.

## EXTRACURRICULARS

### ACM Club Member

2024 – Present

Algorithms | Advanced Algorithms | AI | Frontend

- Solved 100+ Leetcode problems.
- Participated in weekly coding challenges and collaborative hackathon projects.
- Engaged in technical workshops and discussions to deepen understanding of real-world CS applications.

## TECHNICAL SKILLS

**Languages:** Python, C++, Java, JavaScript, Rust, HTML/CSS

**Tools:** Git, Selenium, Bootstrap, Tkinter, OpenAI API

**Systems:** Linux, Windows