# Ethan Santos

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## EDUCATION

## University of California, Irvine

Irvine, CA

Bachelor of Science in Computer Science

December 2025

• Relevant Coursework: Data Structures and Algorithms, Data Management, Computer Organization, Object Oriented Programming, User Experience/User Interfaces, Web Application Development, Software Testing, C/C++ Programming

# TECHNICAL SKILLS

Languages: JavaScript/TypeScript, Java, Python, SQL, C, C++, Swift, Lua, HTML, CSS

Other: Next.js, React/React Native, Flask, TailwindCSS, JUnit, jQuery, AWS, Docker, Node.js, Git, Firebase, Supabase, Agile

## EXPERIENCE

#### Software Engineer Intern | Blue Social

June 2024 – Present

- Integrated an iOS app into React Native, utilizing Swift bridge modules and Thirdweb's React hooks to implement blockchain functionalities, enhancing user engagement by 25% through tokenized rewards for social interactions.
- Implemented Thirdweb SDK using JavaScript for secure wallet connections and smart contract interactions, enabling 10,000+ blockchain transactions, improving transaction security by 30% and user interaction by 25%.
- Optimized wallet data retrieval protocols by integrating Basescan API and Axios, reducing latency by 60% for 1,000+ beta users during blockchain operations and improving real-time currency conversion accuracy.

#### Full Stack Developer | UCI ZotBins Research Team

October 2024 – Present

- Integrated the Mapbox Directions API with Expo Location to provide real-time navigation, automatically determining the nearest ZotBin based on the user's coordinates and offering walking directions, improving user convenience by 30%.
- Developed a real-time leaderboard system using React Native and Firebase, dynamically managing user rankings based on points, increasing user retention by 25% and boosting app engagement by 30% through competitive gamification.
- Programmed an XP-based progression system leveraging Firebase timestamps to track daily activities, awarding dynamic XP for quiz participation, item scanning, and first daily logins, enhancing user engagement and retention.

#### Software Developer | Fusion at UCI

April 2024 – September 2024

- Engineered FUSION's club website using React and React Router, implementing component-based architecture and state management, resulting in 30% improved event coordination efficiency for 100+ members.
- Collaborated with 3 designers to implement responsive, high-fidelity designs using Tailwind CSS and DaisyUI, optimizing component rendering to reduce page load times by 20%, ensuring consistent UI/UX across devices.
- Engineered reusable components and custom hooks in React for shared logic, reducing code duplication by 30% and improving maintainability, streamlining development and enhancing performance by minimizing re-renders.

## Technical Founder | AIMSTARS 🗷

June 2020 - March 2024

- Launched a shooter game programmed in Lua with 9 million plays, 15,000 monthly active users, and over \$30,000 in revenue, driven by engaging gameplay and effective in-game monetization.
- Designed AI-driven bots using the Pathfinding Service for human-like movement, incorporating obstacle avoidance and dynamic path recalculations, boosting player engagement by 40% and retention rates by 25%.
- Implemented a global leaderboard system with ProfileService, managing real-time score updates for 100+ concurrent players, resulting in a 35% increase in user engagement and competition.

#### PROJECTS

Pyro.AI 🗗 | NextJS, Flask, TypeScript, Python, YOLOv8, Tensorflow, Tailwind, ShadCN

February 2025

- Developed a fullstack wildfire dashboard that integrates YOLOv8 for fire detection and OpenRouteService for safe routing.
- Engineered a Flask endpoint to process images, fetch OpenMeteo data, and compute risk with our trained CNN model.
- Implemented an intelligent chat system powered by Google Gemini to provide users with real-time wildfire safety insights.

# NagaGuard ☑ | React, Flask, MySQL, Python, JavaScript, Bootstrap, Gemini AI

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- Developed a full-stack web app that transcribes medical records into clinical codes, reducing medical coding time by 99%.
- Set up a SQL database with stored procedures to manage 200+ of medical records, patient data, and user authentication.

#### Awards

1st place   LA Hacks - Roblox Company Challenge   Project: Bloom.AI	April 2025
1st place   Coinbase OnChain Summer Buildathon   Project: Blue Social 🗹	August 2024
1st place   UCR BearHacks - Best Startup   Project: NagaGuard 🗷	April 2024