Lucas Otañez

Software Developer
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EDUCATION

University of Southern California | Fall 2022 - Spring 2026 (expected)

- B.S. Computer Science - ***GPA: 3.90***

PROFESSIONAL SKILLS

Programming & Markup Languages: C++/C, Go, Typescript/Javascript, Java, HTML & CSS, Python, Lua, Bash
Libraries & Frameworks: React, Next.js, Gin, Node.js, Google Cloud Platform, SDL2, OpenAI
Tools & Platforms: Git, Webpack, Vercel, Linux (Ubuntu, Arch, & Kali), Vim/Neovim, Visual Studio Code
Concepts & Coursework: Data Structures, Algorithms, UI/UX, Object Oriented Design

PROFESSIONAL EXPERIENCE

- **Systems Engineer at USC Formula Electric** | August 2022 - Present
  - Developed C++ code to drive the fully electric competition car.
  - Cooperated tightly with the electrical team to design state machine and CAN bus frames.
- **Hispanic Scholarship Fund Scholar** | 2023 - 2024

PERSONAL SKILLS

Teamwork, Creative Problem Solving, Communication, Attention To Detail, Perseverance

PERSONAL EXPERIENCE & PROJECTS

- **Paywall Sentry |** Created and published a Chrome extension that shows alerts on paywalled Google search results. Consistently pushing updates to a growing user base on the Chrome web store.
- **LinterView |** Developed a full stack behavioral interview web app. Created frontend in React with Next.js and backend in Go and the Gin web framework, along with Google Cloud Platform for authentication and storage. Uses speech transcription and OpenAI models to judge user responses.
- **Hackathons |** Participated in 4 total hackathons including LA Hacks 2023, Berkeley AI Hackathon, HackSC 2023, & HackDavis. Lead development within multiple teams to create shippable products.
- **Icarus Freestyle |** A C++ game entirely written with the SDL2 library. Draws on calculus, data structures, and algorithms to simulate realistic propulsion and collision physics.
- **Open Source Contributor** | Contributed to open source projects and team-based projects via Git. Reviewed and created various pull requests. Followed SemVer conventions when changing source code.
- **Software Developer** | Wrote code for various smaller-scale unpolished projects which include:
  - A Discord bot that allowed club members on a server to raffle and collect Minecraft mobs.
  - An informational website to show information about my math tutoring highschool business.
  - The frontend for a client's product website that served as the starting point for purchases and subscriptions related to the client's software.
  - Motorized mechanical robot head using Arduino, C++, and custom CAD.
- **Optical Character Recognition** | Command line utility written in C++ capable of identifying sequences of numbers/digits from a bitmap image.