Lucas Otañez

Software Engineer
lucasotanez0@gmail.com | (707) 771-4404
linkedin.com/in/lucas-otanez | lucasotanez.vercel.app

EDUCATION

University of Southern California | Fall 2022 - Fall 2025 (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, Software Development

PROFESSIONAL EXPERIENCE

- **Systems Engineer at USC Formula Electric FSAE** | August 2022 - Present
  - Developing software and firmware in C and C++ to drive the fully electric competition car.
  - Cooperate with electrical subteam to design circuit, state machine, and CAN bus frames.
- **USC Latino Alumni Association** | 2023 - Present
- **Hispanic Scholarship Fund Scholar** | 2023

PERSONAL SKILLS

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

PERSONAL EXPERIENCE & PROJECTS

- **Paywall Sentry |** Created and published a Chrome extension to show alerts on paywalled Google search results. Achieved over 11.3K impressions and a growing user base across Chrome web store.
- **LinterView |** Developed a full stack behavioral interview web app. Created frontend in React with Next.js and backend in Go with 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. Adhered to SemVer conventions in commits.
- **Software Developer** | Wrote code for various smaller-scale 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 for a local 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** | Computer vision command line utility written in C++ capable of identifying sequences of numbers/digits from a bitmap image.