José A. Davila-Ciullo

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EDUCATION

Stanford University — Stanford, CA
Bachelors: Computer Science (Systems focus) *GPA: 3.7* — Sept 2020 - March 2025
Masters: Computer Science (Computer/network security focus) — Accepted, delaying entry

RELEVANT COURSEWORK

- Operating Systems
- Computer Networking
- Compilers
- Computer + Network Security
- Advanced Cryptography
- Blockchain Technology
- Web Development
- Designing Serious Games
- Rusty Systems
- Advanced Computational Complexity

WORK EXPERIENCE

Stanford Computer Science Department — Stanford, CA
CS106A/B Teaching Assistant — March 2024 - Present

- Lead weekly hour-long sections for 15+ students in Stanford's Programming Methodology/Abstractions courses, reinforcing concepts covered in lectures through custom examples and intimate feedback.
- Provide detailed feedback on student assignments weekly, identifying common misconceptions and developing targeted guidance to improve learning outcomes.
- Hold weekly office hours and LaIR to help students 1-on-1 debug their assignments and answer any CS, university, life questions.

Youth Alliance for Housing — New York City, NY
Full Stack Dev/Security Zine Producer — Jun 2022 - Present

- Designed and developed the organization's central website (y4h.org) using SvelteKit and Vercel to share their initiatives and accrue new members.
- Hosted mutual aid events and organized to distribute rent support to black and indigenous femmes under the age of 25 years old in New York City.
- Wrote in and illustrated their 2022 community zine. Currently continue my involvement with the organization as a volunteer and the sole maintainer of their website.

Canyons Rock Climbing Gym — Dallas, TX
Event Manager/Climbing Instructor/Desk — Jun 2019 - Aug 2021

- Directed and planned various gym community events including birthdays, lock-ins, climbing competitions, etc.
- Managed front-desk operations, new member registrations, and liability waivers.
- Coached the youth recreational climbing team and gave all new visitors climbing safety/belay lessons.

SKILLS

Programming Languages: C, C++, Rust, Lua, Python, CSS, HTML, JavaScript, Lua, Solidity
Areas of Interest: Game development, ECS, network/computer security, P2P protocols, fediverse

PROJECTS

COOL Compiler

- Constructed a compiler from scratch for the COOL language, compiling to MIPS assembly.
- Engaged with low level systems design and assembly to optimize the compiler's runtime.

Ethereum Decentralized Exchange

- Designed a decentralized Ethereum exchange contract in Solidity/C++
- Implemented security measures within the contract to prevent thread synchronization (re-entrancy) attacks.

Rust BitTorrent Client

- Actively developing a personal BitTorrent client in Rust to learn about the BitTorrent P2P protocol and how network programming is done in Rust.

Rust DNS Resolver

- Programmed a DNS Resolver in Rust using Bitvec, Clap, and Nom as part of my senior project.