

Eli Perez

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Summary

Mission-driven Software Engineer with proven experience shipping high-performance, full-stack applications in Rust. Creator of 'Until Every Cage is Empty,' a grant-funded global mapping tool serving thousands of users.

Education

Southwestern College, AS in Computer Science

Expected May 2026

- **Coursework:** Computer Architecture, Data Structures & Algorithms, Object-Oriented Programming

Projects

Until Every Cage is Empty

Live Demo – GitHub

- Developed a first of its kind, global mapping project for animal rights, reaching over 3,000 monthly users.
- Engineered a high-performance RESTful API in Rust to serve over 38,500 data points to journalists, activists and researchers.
- Standardized data from dozens of sources using Python and visualized using Vanilla JS and Leaflet JS
- Received \$1,000 seed grant from the Pollination Project, crowd-sourced donations from around the world
- Mentioned in animal rights newsletters, recognized by major animal rights organizations like We The Free and CAFT

Electron Custom Redstone CPU

GitHub

- Designed and built an entirely custom 8-bit CPU from logic gates using an electronics simulator in Minecraft to demonstrate a fundamental understanding of computer architecture and low-level systems.
- Complete with an assembler and emulator built in Rust, example programs, and a VS Code extension for syntax highlighting. Entirely custom architecture and instruction set, Turing complete, running at 1 Hz real time.

Experience

Computer Repair Technician, Elite Computers – San Diego, CA

Aug 2024 – Sep 2025

- Systematically diagnosed and resolved complex hardware and software issues for a diverse client base
- Ensured high customer satisfaction by translating complex technical issues into understandable solutions.

Detailing Professional (Founder), Bonita Mobile Detailing – Bonita, CA

Sep 2024 – Aug 2025

- Launched and operated a detailing service business serving hundreds of clients
- Managed complete client life cycle from marketing to delivery, receiving dozens of 5 star reviews on Google

Music Tutor (Volunteer), Chula Vista Middle School – Chula Vista, CA

Jul 2021 – Jun 2024

- Led weekly music lessons with middle school musicians, provided one on one consultation and as group sessions.
- Developed structured lesson plans and provided constructive feedback to foster student growth and confidence.

Skills

- **Programming Languages:** Rust, Python, JavaScript
- **Technologies:** RESTful APIs, Leaflet.js, Git, Linux
- **Systems Programming:** Computer Architecture, Low-Level Systems, Assembler/Emulator Design

Achievements

- Pollination Project Seed Grant Recipient
- Self studied AP Computer Science Exam, passing with the maximum score of 5. Passed 5 AP exams senior year.
- Started a school Jazz Band, performed concerts as lead trumpet. Recognized as 'Most Outstanding Musician'
- Launched YouTube channel and Instagram focused on animal welfare, reaching over 100k views