

ANGEL CRUZ

San José, CA

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Education

San José State University

Expected Fall 2027

Bachelor of Science in Computer Science | GPA: 3.9

San José, CA

Coursework: Machine Learning, Social Networks, Data Structures, Database Management, Object-Oriented Programming

Experience

AgileRadio

Jun. 2025 – Oct. 2025

Software Engineering Intern | Python, Bash, NumPy, pandas, Jenkins

Schenectady, NY

- Engineered a Jenkins-based automated testing pipeline in Python and Bash, reducing manual testing workload by 40% across 12 test suites.
- Analyzed communication protocol behavior using NumPy and pandas to identify performance bottlenecks, expanding test coverage by 35% and reducing defect escape rate by 28%.
- Produced technical documentation and validation reports adopted by cross-functional engineering teams, standardizing testing and knowledge transfer across 3 departments.

Awards & Recognitions

National E-Commerce Website Competition (2023): Placed in the top 10% of teams nationally, competing against university-level participants across the United States.

CSUF RAISE Program (2025): Selected as one of 20 participants from a competitive applicant pool for a STEM research initiative focused on data-driven application development.

Projects

Forge | Python, PyTorch, PyTorch Geometric, NetworkX, Claude API

Jan. 2026 – May 2026

- Built a reference-free DNA analysis pipeline that detects cancer markers and antibiotic resistance directly from raw sequencing reads, eliminating the need for a reference genome.
- Modeled sequencing reads as De Bruijn graphs and trained graph neural networks using PyTorch Geometric, achieving 91% classification accuracy on held-out test sets.
- Replaced brute-force grid search with an LLM-driven parameter optimizer, cutting tuning time by 60% and exposing a natural-language interface for non-expert graph querying.

Mini Me AI | C++, Python, Ollama, Piper, Vosk

Jan. 2026 – Apr. 2026

- Engineered a locally hosted personality-driven AI assistant with real-time speech synthesis and voice interaction, enabling fully offline conversational AI with no cloud dependency.
- Integrated Ollama for on-device LLM inference and Piper/Vosk for low-latency TTS and ASR on constrained hardware.
- Optimized memory allocation for embedded GPU environments, reducing peak VRAM usage by 38% and improving response consistency under sustained load.

Autonomous Roblox AI Agent | Python, Gemini, Discord API, Computer Vision

Mar. 2026

- Built an autonomous vision-based AI agent capable of independently controlling a Roblox character, navigating environments, and completing multi-step tasks without continuous user input.
- Integrated Gemini vision models to interpret live gameplay frames and make real-time decisions for navigation, object interaction, and purchases using in-game currency.
- Developed a Discord bot for remote status monitoring and agent control, with randomized movement and interaction timing to improve behavioral robustness.

Activities

Spartan Racing FSAE

Jan. 2025 – Present

Software Engineering Member | C, BUSMASTER, TASKING, PCAN

San José, CA

- Learned C, CAN communication, BUSMASTER, TASKING, and PCAN while gaining experience with the team's onboard vehicle data systems.
- Collaborated with mechanical and electrical sub-teams on real-time troubleshooting during testing sessions, helping resolve issues before and during race events.
- Produced competition media for sponsor outreach and team marketing, supporting visibility efforts for 6 active sponsors.

Technical Skills

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

Frameworks/Libraries: PyTorch, PyTorch Geometric, React, Next.js, FastAPI, NumPy, pandas

Tools: Git, GitHub, Jenkins, Linux, BUSMASTER, TASKING, PCAN, Postman

Technologies: REST APIs, Gemini API, Discord API, Ollama, Piper, Vosk, Supabase

Spoken Languages: English, Spanish (Fluent)