Jose Falconi-Cavallini

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Education

University of California, San Diego — **La Jolla, CA**
B.S. Computer Science — *2018–2023*
GPA: 3.0
Relevant Courses: Software Engineering, Advanced Data Structures & Algorithms, Web Development, Database Analytics, Operating Systems, Recommender Systems, AI: Search & Reasoning.

Technical Skills

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

Tools & Frameworks: Git/GitHub, Linux/Unix, IntelliJ, Vim, JUnit, Valgrind, GDB, Docker, PyTest

Technologies: Flask, React, Firebase, Selenium, Azure (SQL Database, Functions, App Service, DevOps), REST APIs, JSON, GraphQL, AI/LLM Integration, Full-Stack Development, Pandas, NumPy

Professional Experience

Revolution Prep — **Remote**
Software & Python Tutor — *2025–Present*
- Mentored students on Python, SQL, REST APIs, AI/LLM integration, and cloud-based applications - Assisted learners in deploying scalable Azure solutions and building full-stack projects - Reinforced best practices in coding, debugging, and collaborative software development

Magikid Robotics Lab — **San Diego, CA**
Lead Instructor / Curriculum Developer — *2023–2025*
- Designed and taught advanced Python, AI, and full-stack web app curriculum to high school students - Built and deployed interactive projects: automation systems, AI simulations, cloud-hosted web platforms - Led instructor team, created scalable lesson materials, coding challenges, and mentorship programs - Guided students in software engineering workflows: Git, testing, debugging, and deployment - Integrated React, Flask, Firebase, and Azure into lessons for real-world software experience

UC San Diego — **La Jolla, CA**
CSE Department Tutor / Teaching Assistant — *2019–2022*
- Tutored undergraduate students in Data Structures, Object-Oriented Design, and Java/C++ - Guided students in algorithm design, debugging, and software development best practices - Conducted review sessions, developed coding exercises, and provided technical feedback on assignments - Assisted students with implementing data structures, analyzing complexity, and building project components - Mentored students on software engineering workflows including version control, testing, and modular code design

Projects

Car Inventory Management System (Python + SQL + Azure, August 2025): - Full-stack Flask/Python web app scraping 300+ pages of live dealership inventory every 24h, storing 10,000 vehicle records - CRUD functionality with search, add/edit/delete, and sorting by price, mileage, year, or grouped color categories - Automated scraper uses Requests + BeautifulSoup, scheduled via APScheduler for continuous updates - Database-backed web interface supports rapid queries (200ms) and basic analytics: average price, total inventory, color distribution - Deployed to Azure App Service; modular Python code enables future enhancements

Clay Cooley Car Inventory REST API (Python + JSON, August 2025): - RESTful API built with Flask + SQLAlchemy providing JSON endpoints for retrieving, searching, and updating thousands of vehicles - Daily automated scraping, deduplication via VIN, data validation, and normalized attributes - Optimized for low-latency queries (150ms) with continuous reliability improvements - API-first design allows seamless integration for front-end apps and supports full CRUD operations

AI-Powered Sales Chatbot (Python + OpenAI API, August 2025): - Interactive chatbot using OpenAI API and inventory API to answer real-time user queries - Returns top 5 recommended vehicles per query with details: price, mileage, year, exterior/interior colors, and highlights extremes - Session memory recalls user preferences for personalized follow-ups - Backend optimized for fast responses (250ms) with continuous improvements for accuracy and reliability