

Justin Gutierrez

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EDUCATION

San Jose State University

Aug 2024 - May 2027

B.S. in Computer Science

San Jose, CA

- **Relevant Coursework:** Intro to Data Structures and Algorithms, Discrete Math, Calculus 2, (In Progress) Linear Algebra, Intro to x86 Assembly Language and Computer Architecture

WORK EXPERIENCE

Machine Learning Researcher

Sep 2024 - Apr 2025

SJSU College of Engineering

San Jose

- Developed machine learning models under the Guidance of Dr. Saxena to predict type 2 diabetes using physiological data from the Pima Indians Diabetes Dataset.
- Achieved highest accuracy of 80.52% with Logistic Regression after hyperparameter tuning with GridSearchCV.
- Preprocessed and analyzed data using Python (Pandas, Scikit-learn) in Google Colab.
- Proposed future improvements involving deep learning and diverse patient datasets.

College Corps Fellow

Jun 2025 - Present

College Corps of America

San Jose, CA

- Incoming 2025 College Corps Fellow
- In association with SJSU and #CaliforniansForAll state program

TECHNICAL PROJECTS

TerraScope | React, Tailwind, Deck.gl, FastAPI, Supabase, Machine Learning, Docker

June 2025

- Developed a full-stack AI web app submitted to the 2025 Berkeley AI Hackathon
- Integrated multi-spectral satellite imagery and Google Earth Engine for real-time geospatial insights
- Built custom AI agents using Claude API and Dockerized Fetch.ai for automated terrain analysis and risk alerting

Full Stack Freelance Website | JavaScript, TypeScript, Tailwind, Firebase, React

Present

- Developing a full-stack photography portfolio website with dynamic collection management, real-time booking system, and automated Google Calendar/Zoom integration for professional photographers
- Implemented WebP image optimization and compression that reduced Firebase Storage usage by 99% while maintaining image quality, significantly cutting cloud storage costs and improving page load speeds
- Built comprehensive SEO optimization system with dynamic metadata generation, structured data markup, and automated sitemap creation, resulting in improved search engine visibility and social media sharing capabilities

LLMContext | Python, Typer, FastAPI, Ollama (Mistral), OpenAI API, ChromaDB

Present

- Built a universal sidecar + CLI tool that detects frameworks in a codebase, downloads their documentation, and compresses into LLM-optimized context for AI agents via API, semantic search or file system
- Implemented a full documentation processing pipeline including chunking, summarization with Ollama or GPT-4, embedding with ChromaDB, and real time context retrieval through natural language or tool/topic queries
- Established extensible architecture to support IDE plugins, MCP/agent integration, and internal doc ingestion, for scalable and pluggable context delivery for Copilot, Cursor, etc.

VOLUNTEER EXPERIENCE

CodeClimbers

Aug 2022 - Jul 2024

Teacher/Founder

Sacramento, CA

- Developed and taught an engaging python programming curriculum to 25+ local middle school students
- Hosted after school class sessions at the Natomas Public Library to students free of charge
- Led technology support classes at a local eskaton retirement facility

SKILLS

Languages: Java, Python, JavaScript, TypeScript

Frameworks/Libraries: React, Tailwind, FastAPI, Deck.gl, Next.js, Typer

Databases: Supabase, Firebase, ChromaDB

Developer Tools: VSCode, Cursor, IntelliJ, Git, Docker

AI & API Tools: Ollama, OpenAI API, Claude API, Google Calendar API, ZoomAPI