Gabriel Fernandez

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EDUCATION

B.S. Computer Science — San Francisco State University, 2025

SUMMARY

Full-stack engineer specializing in AI/ML integration and data-intensive applications. Built production systems handling real-time generative AI workflows for public-facing installations. Strong background in Python, TypeScript, and cloud deployment with focus on shipping reliable, user-facing products.

EXPERIENCE

Software Engineer — AI Art Platform

Irene Carvajal's LLC / Google Huddle Space · Mountain View, CA · June 2025 – Present

- Architected and deployed full-stack web application integrating Google Gemini/Vertex AI for interactive art exhibition hosted at Google's Mountain View campus.
- Built complete system from scratch: Express + TypeScript API, PostgreSQL database, Tailwind CSS frontend, real-time AI image generation pipeline, and role-based admin dashboard.
- Supported live public workshops blending generative AI with traditional printmaking, handling concurrent users and ensuring zero-downtime during exhibition hours.
- Collaborated directly with artist and Google facilities team to meet production requirements for public-facing deployment.

PROJECTS

CS2 Match Prediction & Forecasting Platform

View Project →

- Engineered end-to-end ML pipeline processing 4,750+ professional matches: automated data ingestion via Playwright, feature engineering with 50+ predictive signals, and LightGBM model achieving 55-62% accuracy.
- Implemented market-aware probability calibration using isotonic regression and temperature scaling, with Kelly Criterion optimization for risk-adjusted position sizing.
- Built map veto simulation system analyzing team ban/pick patterns to model strategic advantages in best-of-3 series outcomes.
- Deployed full-stack dashboard (React + Node.js + MySQL/Prisma) with REST API, CLI tools, and automated daily updates via AWS EC2.

Ethical Memes — Real-time Multiplayer Web Game

- Built low-latency multiplayer game engine using Socket.io and TypeScript supporting concurrent game rooms with live meme creation, voting, and scoring.
- Optimized for real-time performance with server-rendered EJS templates and Tailwind CSS.

Never Think — iOS Daily Planner

- Developed SwiftUI application with multi-objective itinerary optimization integrating OpenAI and Google Maps APIs.
- Implemented constraint satisfaction for time windows, real-time traffic, and user preferences using MVVM architecture.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Swift, SQL
Backend: Node.js, Express, PostgreSQL, MySQL, Prisma ORM, REST APIs
Frontend: React, Tailwind CSS, SwiftUI, EJS
ML/AI: LightGBM, scikit-learn, feature engineering, model calibration, prompt engineering
Infrastructure: Docker, AWS EC2, Playwright, CI/CD, Linux, Git
Languages: English (native), Spanish (fluent)