Kevin Xu

408-636-3012 — xuk654@gmail.com — github.com/KevinXu-github

Technical Skills

Languages: Python, C++, JavaScript, TypeScript, SQL, HTML/CSS
AI/ML & Cloud: RAG Systems, Vector Embeddings, LLMs (OpenAI GPT, Google Gemini), Prompt Engineering, MCP, AWS, PyTorch, TensorFlow, Scikit-learn, XGBoost
Frameworks & Databases: Node.js, React, Django, FastAPI, Express.js, Flask, MongoDB, PostgreSQL
Tools: Git, Docker, Linux/Unix, REST APIs

Projects

MyFitnessGenie AI Coach — *TypeScript, RAG, Vector Embeddings, MCP* Jun 2025 – Jul 2025

- Implemented advanced RAG system using vector embeddings, cosine similarity, and semantic search to create personalized AI coaching with dynamic knowledge base expansion.
- Built Model Context Protocol server for Claude Desktop with 12 specialized coaching tools, real-time context awareness, and multi-modal data processing.
- Integrated OAuth 2.0 Strava API with context-aware prompt engineering and token management for real-time fitness data analysis and evidence-based recommendations.
- Delivered equivalent results to expensive personal training (10-pound weight loss, 30% strength gains in 6 weeks) at zero cost.

Goggins Motivational Chatbot — *Node.js, Express, MongoDB, React, OpenAI API, Tortoise-TTS* Jan 2025 – Mar 2025

- Built full-stack motivational chatbot with Express/Node.js and React, integrating OpenAI GPT-3.5 API for personality-driven responses with 3 intensity modes.
- Implemented dual voice synthesis using OpenAI TTS and PyTorch-based Tortoise-TTS for custom voice cloning with automatic fallback and audio caching.
- Designed MongoDB schema with session-based user management and indexed conversation history, implementing bcrypt authentication with express-session for secure multi-user access.

Deal Scout Arbitrage Platform — *Python, Flask, PostgreSQL, BeautifulSoup, Bootstrap* Apr 2025 – May 2025

- Engineered web scraping system for 11 retail sites using BeautifulSoup and CloudScraper with anti-detection measures and randomized delays.
- Developed Flask application with Bootstrap UI for real-time scraping progress, deal filtering, and Amazon price comparison with 15% fee profit analysis.

NBA Parlay Predictor — *Python, FastAPI, React, Scikit-learn, XGBoost* Aug 2024 – Sep 2024

- Developed ML pipeline comparing Random Forest, Gradient Boosting, and XGBoost models for NBA over/under predictions with automated model selection and weekly retraining.
- Built React frontend displaying games from SportsData.io and The Odds API with configurable parlay generation based on confidence thresholds (0.5-0.9) and risk categorization.
- Created FastAPI REST API with endpoints for game retrieval, parlay prediction, and history tracking, implementing JSON file caching to reduce API calls and support offline development.

Education

University of California, Santa Cruz Santa Cruz, CA
Bachelors - Computer Science *Sep. 2020 – Jun. 2024*

- Relevant Coursework: Computational Methods & Applications, Data Structures & Algorithms, Computer Architecture, Algorithm Analysis, Probability & Statistics, Database Management
- Mathematical Foundation: Linear Algebra, Vector Calculus, Applied Discrete Mathematics, Number Theory

Certifications

AWS Certified AI Practitioner (AIF-C01) Completed August 2025
AI/ML Fundamentals, Generative AI, Foundation Models & Responsible AI

Meta Full Stack Developer Certificate Completed January 2025
Advanced Software Development & System Design

Google Data Analytics Professional Certification Completed August 2022
Statistical Analysis & Computational Methods