Luan Luong

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SUMMARY

CS junior at Cal State Fullerton building full-stack AI applications in production. Passionate about developer tooling, automation, and using modern software to solve real engineering problems at scale

EDUCATION

California State University Fullerton **Fullerton,CA**
BS in Computer Science *Graduation Date: June 2027*

SKILLS & TECHNOLOGIES

Languages: C++, Python, JavaScript, TypeScript
Web & Frameworks: HTML, CSS, React, Node.js, Next.js, FastAPI, REST APIs
Databases: SQL Server, PostgreSQL
Cloud & Tools: AWS (Textract, S3), Microsoft Azure, Git/GitHub, VS Code

PROJECT EXPERIENCE

Pitchside — Fantasy Football Agent | Google Cloud Hackathon | Source / Demo

- Built an agentic AI system using Google ADK and Gemini 2.5 Flash on Vertex AI with 15 custom tools — lineup optimization, match prediction via a custom probability model, and live standings from an external API — backed by MongoDB Atlas seeded with 3,230 match statistics from the 2022 World Cup
- Engineered a full-stack fantasy scoring engine in Python/FastAPI with a Next.js frontend featuring a real-time interactive pitch view that updates live when the agent recommends a lineup, deployed on Railway and Vercel

MedVoice — Powered Healthcare Bill Navigator | Source / Demo

- Built a full-stack bill navigator using FastAPI, Next.js, and PostgreSQL, integrating AWS Textract for OCR and Claude API for multilingual document analysis across 8 languages with CI/CD via GitHub Actions
- Implemented Clerk authentication with Google OAuth, a personal analytics dashboard using Recharts displaying spending over time, most common charges, and bill history with Motion animations and full mobile responsiveness
- Built an interactive provider search page using the Google Maps and Places API with real-time ratings, photos, and a drag-to-resize split panel layout, and added AI-powered appeal letter generation and a contextual bill chat feature

PodMind — English Learning Platform via Real Podcasts | Source / Demo

- Built a full-stack podcast learning platform using Node.js, Express, Next.js, and PostgreSQL, implementing an end-to-end audio pipeline: RSS ingestion → ffmpeg compression → OpenAI Whisper transcription → pgvector embeddings for semantic search across episode transcripts
- Engineered a synchronized audio-transcript player with word-level timestamps, click-to-translate via DeepL + Claude API, and a spaced repetition vocabulary system (SM-2 algorithm) — enabling immersive language learning directly from native English content

Mini-SQL (C++)

- Built a C++ SQL interpreter with a full lexer → parser → AST → executor pipeline supporting SELECT, INSERT, UPDATE, DELETE with WHERE filtering and column projection on in-memory tables