

Jeff Ellis

AI Backend Developer

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github.com/ai-backend-course

Backend engineer focused on AI-driven systems using Go, Postgres, pgvector, Docker, and OpenAI. Skilled in building RAG pipelines, semantic search, and microservices. Completed the CourseCareers Backend Specialization and an applied 60-day AI backend program resulting in a full production-grade portfolio.

Backend Software Education

CourseCareers | Certificate

Grad November 2025

Software Development Fundamentals with Backend Specialization

Completed 45-hour training on programming fundamentals (HTML, CSS, JavaScript), frontend development (React, DOM manipulation), version control (Git & GitHub), software architecture and design principles, algorithms and data structures, backend fundamentals (Node.js, Express, API design), databases (SQL, NoSQL), automated testing & debugging, and deployment workflows.

Intensive ChatGPT-Guided AI Backend Program | Other

Grad November 2025

AI Backend Development

Completed an intensive AI-backend engineering program focused on Go, Postgres, pgvector, Docker, semantic search, retrieval-augmented generation (RAG), microservices, API design, and production-grade deployment workflows. Built multiple end-to-end AI backend systems through hands-on, project-based instruction.

Technical Skills

Core Backend: Go · Javascript · Node.js · TypeScript

Frameworks: Fiber · Express

Databases: Postgres · pgvector

DevOps: Docker · Docker Compose · Fly.io

AI Tools: OpenAI API · SmallEmbedding3 · GPT-4o Mini · mock-AI pipelines

Patterns: REST APIs · Microservices · RAG workflows · Semantic Search

Other: zerolog · metrics endpoints · rate limiting · environment configuration

Portfolio Website

Portfolio

ai-backend-course.github.io/portfolio/

Projects

Notes Memory Core API

CRUD notes API featuring structured logging, migrations, metrics, environment-based configuration, and production-ready architecture.

Notes Memory Core — RAG Extension

Full Retrieval-Augmented Generation pipeline with embeddings, vector similarity search, and AI-generated contextual responses.

AI Embedding Microservice

Standalone microservice that generates text embeddings with OpenAI or deterministic mock mode.

AI Summary Microservice

Microservice that accepts raw text and returns concise AI-generated summaries.