
MATTHEW EARNEST

Software Developer – matthewearnest.dev

PROFESSIONAL SUMMARY

Full-stack engineer who ships products end-to-end. Background in .NET and SQL data systems, currently building RAG platforms and LLM agent infrastructure with React, FastAPI, and Python.

EMPLOYMENT HISTORY

FULL-STACK ENGINEER

March 2026 – July 2026

Bear Creek AI

- Built an AI course generation platform end-to-end for enterprise compliance training: FastAPI/MongoDB backend, React frontend, document-to-course ingestion, and per-course RAG over Pinecone with Azure OpenAI embeddings, plus LLM-generated assessments and flashcards
- Architected and shipped a GraphRAG pipeline solo: Azure Blob storage, LlamaParse ingestion, chunking, parallel LLM entity extraction, embedding-based deduplication, and a Neo4j knowledge graph whose retrieval expands from vector-matched entities to their neighbors, capturing relational context that traditional vector RAG misses
- Designed the platform's per-topic AI tutor, grounded in user-uploaded materials and updating learner objectives and progress mid-conversation via tool calls, adapting instruction to real-time assessment performance
- Delivered Projects solo: chat workspaces with shared knowledge bases, scoped instructions, and persistent cross-conversation memory carrying context between sessions
- Owned production deployment and infrastructure on Koyeb: autoscaling, CPU/memory provisioning, and resource tuning to keep the platform responsive under variable AI workload demand

SOFTWARE DEVELOPER

June 2024 – March 2026

CGI

- Built and supported numerous automated batch processing applications integrating diverse data sources into centralized SQL databases
- Enhanced full-stack device management platform with Angular/TypeScript/.NET features, expanding capabilities for enterprise users
- Designed production database architecture including tables, stored procedures, and ETL pipelines; deployed multiple SSIS jobs ensuring reliable data processing operations
- Contributed to CI/CD pipeline implementation and provided production support across multiple applications

EDUCATION

MASTER OF SCIENCE IN MANAGEMENT INFORMATION SYSTEMS

University of Alabama

BACHELOR OF SCIENCE IN MANAGEMENT INFORMATION SYSTEMS

University of Alabama

CERTIFICATIONS

AWS Certified Developer – Associate · ISTQB Certified Tester, Foundation Level · IIBA Entry Certificate in Business Analysis

SKILLS

C#/.NET, Python, TypeScript, JavaScript, FastAPI, Angular, React, MVC, RESTful APIs, LangChain, RAG, LLMs. GraphRAG, LangSmith, SQL Server, PostgreSQL, MongoDB, Batch Processing, AWS, Docker, Koyeb, Vercel, CI/CD, PowerShell, Git, Jira, Slack

LINKS

LinkedIn: <https://www.linkedin.com/in/matthewearnest1/>, Portfolio: <https://matthewearnest.dev/>

GitHub: <https://github.com/mearnest-dev>, itch.io: <https://bigporkgames.itch.io/>

PROJECTS

BlownCartridge.com – Game Review Site

A Letterboxd-inspired video game review site with user reviews, community rankings, analytics and more. Leverages Tailwind CSS, Framer animations, and Capacitor for the mobile version. Available for free on the App Store

Link: blowncartridge.com

AlterFit – AI-Powered Fitness Platform

An AI-powered workout app that adapts to your lifestyle and limitations. SwiftUI application in beta testing on the App Store.

Link: join.alterfit.app

Tyrant – Kingdom Management Game

48 hour game jam entry where you play as a king balancing the people, nobles, and your armies to reign as long as possible.

Link: <https://bigporkgames.itch.io/tyrant>

Agentation Vanilla – Browser Annotation Tool

Open-source visual annotation tool for vanilla JS development. Inspired by [Agentation](#).

Link: <https://github.com/mearnest-dev/agentation-vanilla>