Jacob Thomas

JacobJonThomas@gmail.com | 630-880-2110 | Lombard, IL | GitHub: Jacob-J-Thomas

Proficient Technologies

Azure OpenAI, Azure AI Search, Azure ML Studio, .NET (C#), Python, PyTorch, JS, SQL

Experience

AI Engineer | Convergint | ***May 2023 – Present***

- **Led development of an agentic chatbot** capable of accessing internal documents and various data stores to assist users with company processes, submitting helpdesk tickets, and performing other automated tasks.
- **Worked with a Microsoft early adoption team** to be among the first to utilize **Azure OpenAI** to deliver this type of solution, leveraging cutting-edge AI advancements.
- **Integrated LLM technologies** into existing enterprise applications to perform operations such as **converting natural language prompts into JSON filters** and executing functions dynamically.
- **Designed & optimized prompts** to improve LLM accuracy and reliability, refining agentic chatbot interactions and data conversion tasks for internal tools.
- **Developed a retrieval-augmented generation (RAG) pipeline** using **Azure AI Search**, enabling ingestion, chunking, and vectorization of structured & unstructured data.
- **Engineered a custom API** to streamline **Azure OpenAI** integration, providing metric tracking, enhanced stability, and fallback mechanisms for frequent API outages.

Personal Software Development Projects

Intelligence Hub - A Powerful Wrapper for Common AI Services & Rapid Development
(Azure OpenAI, Azure AI Search, OpenAI, Anthropic, ASP.NET (C#), React, SQL)

- **Developed a scalable API to enable rapid agentic AI workflow development**, supporting response **streaming, RAG retrieval, vision, function execution, message storage, load balancing, resilient design,** and seamless **disaster recovery.**
- **Support the utilization of multiple LLM providers**, including **Azure OpenAI, OpenAI,** and **Anthropic**, allowing workflows to interchange AGI models at will.
- **Built a Template with ASP.NET React** to consume this API, accelerating development.

Binary Prediction Model - A Generalized Script for Training Binary Classification Models
(Python, PyTorch, Azure ML Studio)

- **Trained a binary classification model** using **PyTorch** to predict passenger survivability on the Titanic based on multiple features, achieving **92% accuracy.**
- **Generalized the training script** to work with any data set of equally as many features