RAMYASHREE G

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SUMMARY

With 2 years of experience in Generative AI, I have developed a strong expertise in natural language processing, large language models, prompt engineering, and building RAG pipelines. I have successfully contributed to several innovative GenAI projects, continuously enhancing my knowledge and staying at the forefront of AI advancements. Recognized for my technical management, problem-solving abilities, and effective communication, I am passionate about fostering teamwork and driving organizational growth through AI-driven solutions.

SKILLS

- **Generative AI** [OpenAI, Azure OpenAI, LLM, Meta Llama, Prompt Engineering, Retrieval Augmented Generation, LangChain, LlamaIndex, Finetuning].
- Possesses experience in Azure services, AWS services, NLP.
- **Azure**: Azure OpenAI, AI Search, Azure Functions, Blob Storage, Copilot Studio, Azure AI Studio, Custom Question Answering, Document Intelligence.
- **AWS**: Lambda, S3, EC2, API Gateway, Lex, Polly, Textract, Q, Bedrock, SageMaker.
- **Programming languages:** Python, NodeJS, HTML, CSS and React
- **Frameworks:** LangChain, LlamaIndex, DSPy, Flask, FastAPI
- **Databases:** SQL, DynamoDB, MongoDB, Weaviate (vector db)
- **Tools:** Visual Studio code, Git, Github Copilot, Postman

EXPERIENCE

Tietoevry - Bengaluru

Generative AI Python Developer — **August 2022 – Present**

Projects

- **Chat with PDF data solution for Leading steel manufacturing company from US**

Azure AI search, Azure OpenAI, Python, LlamaIndex, Azure functions, Azure blob storage, Azure Key Vault

Leading steel manufacturer from US, was facing challenges with their existing knowledge retrieval process. Implemented automated document processing pipelines with intelligent data parsing and chunking. Implemented a QnA Chat functionality utilizing an intelligent and advanced RAG approach. This solution significantly reduced the time and effort required by Metallurgist to search for information. By streamlining the knowledge retrieval process, Metallurgist can focus more on analysis and problem-solving

- **Chat with Domain Data**

Azure OpenAI, LangChain, Weaviate Vector db, Python, Amazon, Textract, S3, EC2.

This solution is built to showcase chatbots capabilities to interact with complex unstructured PDF files to provide relevant answers to user queries. It is a solution useful for quickly retrieving specific information from complex PDF files.

- **Sales Assistant**

Azure OpenAI GPT3.5, Text Embedding Ada, RAG LlamaIndex, Azure AI Search, Azure Blob storage, Azure Web App, Azure Function, Python, NodeJS, Next.js, Flask

The Sales Assistant application utilizes advanced AI techniques to streamline the process of collecting and analyzing customer-related documents for sales teams. It efficiently extracts specific case studies and gathers comprehensive customer details from PPT, providing valuable insights for sales agents. This improves efficiency, availability, and accuracy, ultimately enhancing sales team effectiveness.

- **Loan Agent Assist**

Azure OpenAI GPT3.5, Text Embedding Ada, RAG LlamaIndex, Azure AI Search, Azure Blob storage, Azure Web App, Azure Function, Python, NodeJS, Next.js, Flask

The Loan Agent Assist solution uses advanced AI to help loan agents in the banking industry efficiently assess clients' financing needs. It extracts specific information from complex loan documents, enabling data-driven decisions, personalized services, and optimized processes. This improves accuracy, reduces time and effort, and provides a reliable 24/7 assistant for loan officers, enhancing overall decision-making and customer service.

- **LLM Auto-Evaluator**

Python, Azure OpenAI, LangChain

This tool automates the evaluation process by integrating with the question-and-answer bot API. It accepts questions and expected answers in CSV format, sends queries to the bot API, retrieves the provided answers, and adds observed results with justifications to the evaluation data. Additionally, it calculates accuracy based on the comparison between expected and observed answers.

- **Chat with PDF - Microsoft Copilot Studio**

Azure OpenAI, Microsoft Copilot Studio, Power Automate

A Microsoft Teams bot has been developed using a no-code approach of Microsoft Copilot Studio specifically for chat with PDF functionality. This bot allows employees to perform tasks related to PDF documents directly within the Teams environment, eliminating the need to switch between multiple apps.

- **LLM Finetuning**

Python, HuggingFace, Accelerate, Transformers, Supervised Fine-Tuning (SFT), Quantization Low-Rank Adaptation (QLoRA), PEFT (Prompt Engineering Fine-Tuning).

This solution involves fine-tuning pretrained base models using QLORA technique, which entails adapting them to specific domains through additional training on domain-specific datasets. This process allows the models to learn patterns relevant to the particular domain, thereby enhancing their performance on data within that specific field.

- **Intent Mining Framework**

Python, Clustering, Tokenization, Topic Representation, Embedding, Hugging Face, SetFit.

The proposed IMF automates intent discovery from unhandled chat conversations using cutting-edge NLP techniques and Semantic Technologies, leveraging pre-trained Large Language Models (LLM), embeddings, and zero-shot/few-shot learning. It also incorporates Active Learning to enhance its capabilities.

EDUCATION

Jawaharlal Nehru College of Engineering, Shimoga (2018 – 2022)
Bachelor of Engineering, Computer Science - 8.5 CGPA

Karnataka PU Board, Shimoga (2016 – 2018)
PCMB - 93%

Karnataka Secondary Board of Education, Shimoga (2014 – 2016)
Score: 96%

CERTIFICATIONS / BADGE

- Develop Generative AI solutions with Azure OpenAI Service
- Build a RAG-based copilot solution with your own data using Azure AI Studio
- Fundamentals of Responsible Generative AI
- Databricks Accredited Generative AI Fundamentals
- Oracle OCI Generative AI Professional
- Automation AI Basic Training – Kore.ai

LANGUAGES

Kannada, English, Hindi, Telugu, Marathi.