Akhil Shekkari

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Master's student in Applied Machine Learning, passionate and motivated in leveraging advanced AI techniques to solve real-world problems and build Scalable ML Systems.

Technical Skills

Programming & Libraries: Python, SQL, Scikit-Learn, TensorFlow, PyTorch, Hugging Face, FAISS,Keras
Tools & Platforms: Docker, AWS (Sagemaker), Snowflake, GitHub, LangChain, Power-BI, SpaCy, Azure ML, AWS Bedrock,PaperSpace
Focus Areas: NLP, NLTK,Computer Vision,Data Preprocessing, Deep Learning Methods, Feature Engineering,Statistics

Experience

Software Developer (Tezo) ***July 2022 - July 2024***

- Spearheaded the design and implementation of **end-to-end data warehousing solutions** within the company using Snowflake,laying out a comprehensive architecture that focused on **ETL/ELT** processes, data integration, and optimized performance for large-scale data operations.
- Worked with **data science teams** and Implemented a **Retrieval-Augmented Generation (RAG)** system within the company, streamlining the search experience across multiple domains and improving **search accuracy by 35%**.
- Developed **Data Quality** frameworks that improved overall data accuracy and reliability by **80%**, providing cleaner data for Machine Learning models.
- Delivered **presentations and seminars** on **Snowflake** within the company, covering best practices, architecture, and performance optimization. Also earned **SnowPro Core Certification**, enhancing my expertise in Snowflake's ecosystem.

Junior Software Developer (Tezo) ***July 2021 – July 2022***

- Collaborated with **stakeholders** to understand business requirements and translated them into scalable, efficient data models designed for long-term solutions.
- Optimized **Snowflake Cloud Data Warehouse** using virtual warehouses, query tuning, zero-copy cloning, time travel, Snowpipe, Streams, and Tasks for efficient data management.
- Built interactive data visualizations using **Power BI dashboards** with **Row-Level Security (RLS) and Dynamic RLS** to enhance data security.
- Gained expertise in database programming, including **T-SQL** stored procedures, constraints, and indexes, utilizing DDL and DML for optimized performance.

Personal Projects

Resume Analyzer ***Github Link***

- **Developed and deployed an AI-powered Resume Analyzer** using OpenAI's language models and Azure ML, allowing users to assess resume-job description alignment through embeddings and cosine similarity, enhancing job application strategies.
- Implemented personalized feedback by leveraging **OpenAI embeddings** to provide actionable suggestions for resume improvement,, with deployment on Azure for scalable access.

Customer Support Application ***Github Link***

- Developed an AI-powered customer support system leveraging Large Language Models (**LLMs**) for automated ticket categorization, **sentiment analysis**, and response generation to enhance support efficiency and **reduce operational costs**.
- Configured and managed **Azure ML workspace**, deploying and scaling machine learning models using Azure ML pipelines for streamlined project tracking and execution.
- Implemented Retrieval-Augmented Generation (RAG) framework with OpenAI embeddings and **FAISS vector database** for efficient text retrieval and context-aware response generation.

Multimodal RAG Application ***Github Link***

- Developed a **Multimodal RAG system** for a restaurant app, combining text and image data using **AWS Bedrock**, **FAISS**, and Claude-Sonnet to deliver personalized food recommendations.

Credit Card Fraud Detection

- Developed and implemented a machine learning-based credit card fraud detection system using supervised learning algorithms to identify fraudulent transactions with high accuracy, reducing false positives and minimizing financial losses.

Personal Milestones

- **Published paper** on the topic **Understanding Question Pair Similarity** in International Journal of Advanced Science and Technology, Volume Volume 9 Issue VI, June 2021.