Muhammad Usman Haider
Data Scientist

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Professional Summary

Data Scientist and Machine Learning Engineer strongly focused on Generative AI LLMs, specializing in developing and deploying cutting-edge AI solutions that drive innovation in SaaS and PaaS environments. Expert in enhancing data processing capabilities, optimizing workflows, and creating intuitive AI applications to solve complex business challenges and boost operational efficiency.

Education

Superior College Sargodha   Sargodha, Pakistan
BS-IT   2018-2022

Professional Experience

STECHAI   **Sep 2023 - Present**
A service-based company delivering comprehensive data science, AI, and machine learning solutions through innovative, high end projects.

Associate Data Scientist – Onsite
- Engineered high-performance Django backend services and scalable FastAPI solutions.
- Executed end-to-end AI applications & chatbots, integrating with Streamlit for businesses, aiding 83% in their growth strategies and enhancing customer engagement.
- Experienced AI developer specializing in Gemini LLM applications, innovating solutions across various use cases with a track record of 50% project utilization, 30% use case development, and 20% implementation of cutting-edge technologies.
- Oversaw SQL databases (MySQL, PostgreSQL) and NoSQL databases (MongoDB) for structured and unstructured/semistructured data storage and retrieval, evenly distributing tasks.
- Employed Docker for containerization (25% of deployment), AWS, Chroma DB, and Qdrant for specialized data storage and processing (35%), and Neo4jdb for graph database applications (40%).

Data Scientist Intern – Onsite
- Engineered Python scripts for data analysis comprising 60% of the workload, alongside optimizing SQL database queries for the remaining 40%.

- Leveraged web scraping tools like Beautiful Soup to acquire data for the organization, resulting in a 50% increase in research efficiency with 8,000 company descriptions and quotes extracted.

Projects

Fine-Tuned BERT Model; for Sentimental Analysis with PEFT - Fine-tuned a BERT model with PEFT for sentiment analysis, accurately classifying text sentiments.

RAG Chatbot; Create a RAG-based chatbot utilizing the GEMNII API by processing a PDF document and storing vectors in Qdrant.

Chatbot with Django; Utilize an LLM framework such as LLama Index to fine-tune an LLM model, then store the vectors of PDF files in an OpenSearch database. Afterward, create a chatbot using the OpenAI API key and implement it with the Django framework.

Olympics-data-analysis; using Streamlit that offers comprehensive insights into Olympic data. Covering data from various Olympic events up until 2017, this web application enables users to perform in-depth analyses and explore historical trends related to the Olympics.

Inventory Analysis and Prediction; Process the sales and replenishment data to compute the sales for each product over the past 14 days for every date. Then, train an XGBoost model to predict sales for any product.

Technical Skills

- **Programming & Development:** Proficient in Python, Scikit-Learn, NLTK, Transformers, EDA, ETL, PySpark, Matplotlib, Plotly, SQL, Vector Databases, Flask, Streamlit, Docker, GitHub Actions, CI/CD pipelines, NoSQL, and Git.
- **Data Science & AI:** Expertise in Machine Learning, Data Analysis, Predictive Modeling, Artificial Intelligence, Statistical Modeling, Data Visualization, Data Engineering, Model Deployment, Time Series Analysis, Cloud Machine Learning, Big Data Technologies, Natural Language Processing (NLP), Prompt Engineering, Generative AI, LangChain, Llama-Index, LangGraph, Crew-AI, LangSmith, and Retrieval-Augmented Generation (RAG) with both opensource and paid LLM models.
- **Management & Operations:** Skilled in Business Analysis, Cloud Platforms (Heroku, Azure, AWS), MLOps, AIOps, MLflow, AutoML, Decision-Making, Power BI, Project Management, and Product Management.
- **Communication & Collaboration:** Strong in Effective Communication, Collaboration, Stakeholder Management, and Team Building.
- **Languages:** Fluent in English and Urdu with full professional proficiency.

Social Media

- https://www.linkedin.com/in/m-usman-haider/
- https://github.com/osman-haider
- https://osman-haider.github.io/osman