MUHAMMAD MOHSIN

AI Developer

As an AI engineer, I bring proficiency and hands-on experience in developing AI applications. My passion for writing clean and efficient code, and problem-solving, drives my commitment to contribute meaningfully and cultivate continuous learning in a collaborative development setting.

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WORK EXPERIENCES

Ml Engineer
Developers Den LLC

01/2024 - Present

Achievements/Tasks

- In my role as an ML Engineer, I specialize in developing advanced Natural Language Processing (NLP) applications. I leverage cutting-edge techniques such as LangChain, RAG transformers, and Large Language Models (LLMs) to create intelligent, customized conversational chatbots and AI Assistant tailored to specific client needs. Good experience with agent function calling and agent workflows based on tools which created by AI agents. Additionally, I have experience working with multimodal vision models for data extraction, including extracting information from PDFs using vision models and OCR.

Software Engineer
Lycore Software House (Islamabad)

01/2023 - 01/2024

Achievements/Tasks

- Played a major role in developing full stack web development management systems like taxi driving booking service management system, Product based management system, also helping AI SAAS systems.

Python AI/NLP Developer
Outright (Islamabad)

07/2022 - 01/2023

Achievements/Tasks

- Developed AI applications like voice Bot and Chatbots
- Played a major role in project was aimed at enhancing the efficiency and effectiveness of call center operations through the integration of custom voicebot solution, Rimba Call, a third-party API, for call recording.

EDUCATION

Bachelors in Engineering
USMAN INSTITUTE OF TECHNOLOGY (NED)

2016 - 2021

Main Courses

- Programming Fundamental
- Introduction to Computing
- Communication Skills
- Data Structures and Algorithms
- Technical and Business Writing

SKILLS

Python · AI / ML / NLP · Problem-solving skills · Python ORM libraries · Git · Databases : mysql, postgresql · LangChain · python frameworkfs : fastapi, flask, django · Large Language Models · RAG · AWS Services · AI Agent Workflows · Agenting approach · OpenAI LLM · Function calling in AI Assistant

PROJECTS

AI Assistant with Automatic Functional calling and Workflows Trigger

- Developed an AI Assistant leveraging **LLMs, LangChain framework, and OpenAI models** to execute multiple tasks dynamically through **functional calling and agent-based workflows** . The assistant interacts with users via chat or queries, intelligently invoking predefined functions based on context and requirements.
- A key feature of this project was the implementation of **agent-based workflows** , where tasks were structured as interconnected nodes. Each node (or agent) depends on the previous one, ensuring that responses cascade logically through the workflow. This **sequential and dynamic task execution** enables complex automation, making the AI assistant highly adaptable for various use cases.
- **Key Technologies:** LangChain, OpenAI GPT Models, Functional Calling, Agent-Based Workflows, Workflow Automation.

PDF Extraction With QC Rules Automation Through LLM

- In this project, we focus on extracting images in JSON format using multimodal vision (GPT-4V) and then creating embeddings. The extracted data is processed through retrieval-augmented generation (RAG) using various rules categorized specifically for image-based queries. This enables us to provide accurate responses to queries using different language models like Claude, Cohere, and OpenAI.

VoiceAge: Predictive Vocal Analytics

- I have gathered a diverse dataset of audio samples across age groups, preprocess it for consistency, and labeled with corresponding ages.
- Extracted relevant features from audio data (MFCC, Spectral features, pitch etc) and choosen a regression ML models for age prediction.

CERTIFICATES

Python for AI & Development

IBM Coursera

Retrieval Augmented Generation for Production with LangChain & LlamaIndex

Activeloop