MOHAMMED YASEEN AHMED KHAN

AI / ML Engineer | Backend & Enterprise AI Systems

Hyderabad, India | Open to Relocation

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SUMMARY

AI/ML Engineer with hands-on experience building **backend-driven, enterprise-style AI systems.** Strong exposure to **Retrieval-Augmented Generation (RAG), agent-based workflows,** and **API-led architectures** used in real-world business applications. Experienced in **Python, SQL, FastAPI**, and **modular system design,** with experience in scalable platforms and client-facing problem solving.

EXPERIENCE

AI/ML Engineer (Junior)

Five Seven IT Solutions | Sept 2024 – Feb 2025

• Worked on **backend-driven machine learning workflows** supporting **enterprise analytics and AI use cases**

• Built and maintained **Python-based ML pipelines** for data preprocessing and model execution

• Developed and tested **REST APIs** using **FastAPI** for **model inference and data access**

• Performed **data preparation and validation using SQL** for feature extraction and analysis

• Collaborated on deployment-ready **ML components** and cross-functional alignment with business and client requirements

PROJECTS

Enterprise Document Question Answering System (RAG)

• Built a **Retrieval-Augmented Generation (RAG**) system for querying enterprise documents using natural language

• Implemented document ingestion, **semantic chunking**, **embeddings**, and **FAISS-based vector search**

• Integrated large language models to generate **grounded**, **source-aware responses**

• Designed backend services with a focus on **enterprise knowledge access, auditability, and explainability**

Agentic Customer Success Bot for SaaS Platforms

• Designed and built an **agent-based AI system** to automate customer support workflows for SaaS platforms

• Implemented intent **classification and routing logic** to delegate user queries to specialized agents

• Developed a RAG-based knowledge retrieval component using embeddings and FAISS

• Integrated backend orchestration **logic** to coordinate **multi-agent** responses in a structured **workflow**

• Focused on modular architecture, reliability, and enterprise-style AI system design

Production-Grade ML Monitoring System for Employee Attrition

• Built an end-to-end machine learning system for employee attrition prediction with emphasis on post-deployment monitoring and model reliability

• Designed and implemented data drift and prediction drift detection using statistical techniques such as Population Stability Index (PSI) and Kolmogorov–Smirnov tests

• Developed a FastAPI-based inference service with structured prediction logging to monitor input feature distributions and model outputs

• Implemented alerting and retraining-readiness logic to flag model degradation and support production-style ML lifecycle management

OPEN SOURCE CONTRIBUTIONS

• Contributed to large-scale open-source AI frameworks within the **LangChain ecosystem**

• Analyzed and modified **EnsembleRetriever** logic in LangChain's **Python codebase**

• Implemented configuration validation using **Pydantic validators** for retrieval workflows

• Gained hands-on experience with strict OSS **CI pipelines, Ruff linting,** and **formatter enforcement**

• GitHub: github.com/MohammedYaseenAhmedKhan

TECHNICAL SKILLS

Programming & Backend : Python, SQL, FastAPI, REST APIs

AI & ML Systems : ML Pipelines, Feature Engineering, Model Evaluation, **RAG, Embeddings, FAISS, Agent-Based System**s

Enterprise & Deployment : Modular Architecture, API-based Services, **Docker (Basics)**, CI/CD (Basics), Monitoring Concepts

Tools : Git, GitHub, Linux, Streamlit

EDUCATION

Bachelor of Engineering in Artificial Intelligence & Machine Learning Poojya Doddappa Appa College of Engineering | 2021 – 2025

Professional Program – Data Science & Artificial Intelligence (Ongoing) | Imarticus Learning

CERTIFICATIONS

Oracle OCI – AI Foundations Associate | NPTEL (Cloud Computing) | Cisco (IoT)