

Mubeen Afzal

mubeen.afzal2001@gmail.com • +923145514424 • [Linkedin: mubeen-afzal-ai](#) • Islamabad | Lahore

Profile

AI Engineer with hands-on experience in Generative AI, scalable deployments, and full-stack ML systems—from data pipelines to production-ready solutions.

Skills

- **Programming:** Python (Flask, Django, FastAPI, Web Automation and scraping), Java, C/C++, JavaScript, GO
- **AI & ML Frameworks:** PyTorch, TensorFlow, Transformers, Diffusers, Scikit-learn, Langchain
- **Generative AI:** ControlNet, Diffusion Model, LLM, GAN, RAG, Fine-tuning, AI Agents, LangGraph, CrewAI
- **Graph Data Analysis:** Knowledge Graphs, GNNs, NetworkX, Neo4j, SPARQL
- **Cloud & MLOps:** AWS, Docker, Azure, Jenkins, GitHub Actions, MLFlow
- **Data Engineering & Storage:** Pandas, PySpark, Airflow, SQL, NoSQL, MongoDB, Postgresql, vector DBs
- **3D Vision & CV:** PointNet, YOLO, Unet, Resnet, OpenCV, 3D Object Classification & Segmentation
- **NLP & Text Processing:** BERT, GPT, Summarization, Sentiment Analysis, Custom QA, Speech Recognition

Work Experience

Imarat Group of Companies

AI Engineer | May 2024 – Nov 2024

- Built an AI-powered floor plan and house rendering tool using diffusion models and ControlNet, reducing manual rendering time by 95%.
- Improved real-time response and model accuracy by fine-tuning for a scalable, user-interactive deployment.

QLU.ai

Deep Learning Engineer | Jan 2024 – Apr 2024

- Built a production-grade RAG system combining dense retrieval with transformer-based re-ranking, optimized for low-latency, high-accuracy response generation.
- Redesigned AI interview service architecture with integrated model observability and horizontal scaling, significantly boosting throughput and fault tolerance.

Projects

- **Anomaly Detection System (FYP, Industry Collaboration):** Deployed a hybrid AI-rule based system that detects network/system anomalies via correlated logs for Cydeatch.
- **3D Point Cloud Classification:** Implemented a PyTorch-based PointNet model for segmenting and classifying 3D data efficiently.
- **Real-Time ETL System (MeshJoin):** Built a Java-based near-real-time ETL system inspired by Walmart-scale operations using MeshJoin.
- **E-commerce Scraper & DB Pipeline:** Scraped product data, cleaned and piped it into a structured SQL database for analysis.
- **Urdu STT Fine-Tuning:** Fine-tuned an LSTM-based Speech-to-Text model on Urdu datasets for improved regional speech accuracy.

Education

• **FAST National University of Computer and Emerging Sciences**
BS Artificial Intelligence

Islamabad, Pakistan
Aug 2019 – Dec 2023

Research & Publications

- **AI-Enhanced Architectural Design:** From Interactive Floor Plan Generation to Style Rendering Using Diffusion Models and ControlNet

Certifications

- Azure AI Fundamentals (Microsoft Certified)
- Generative AI with LLMs
- Google Cybersecurity