HAMZA AMIN

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EDUCATION

BS Artificial Intelligence,   2022-2026
Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Pakistan

SKILLS

ML/Dev	LangChain, TensorFlow, PyTorch, Python, C++, SQL, FastAPI, Django, Docker
Data/Cloud	PostgreSQL, Firebase, Azure, AWS EC2, Jira, Confluence, LaTex, Git

EXPERIENCE

Data Scientist   Mar 2024 - Oct 2024
SayntAI   *Onsite, Pakistan*

- Developed a personalized educational assistant app leveraging LangChain and LangGraph, which addresses learning gaps and offers personalized learning experiences.

- Built a data preprocessing tool utilizing OCR technology that optimized RAG pipeline efficiency by 30%, leading to faster and more accurate data retrieval.

- Created an AI-driven natural language interface with SQL, enabling real-time interactions with datasets via LLMs, enhancing data accessibility and analysis.

PROJECTS

- **FloodRelief AI**   GitHub, Feb 2025
  I was a key member of a team that reached the final round of the NETSOL Hackathon. We developed FloodRelief AI, which used OR tools for optimized resource distribution and FastAPI for the backend. The project also featured Agentic AI for broadcasting emergency alerts and real-time updates on blocked roads, enhancing crisis response.

- **Covenant AI**   GitHub, Jan 2025
  Currently working on AI Lease Contract analysis project utilizing Agentic RAG architecture. Developed features including preprocessing OCR pipeline, contracts comparison, and highlighting key terms, with a unique selling point of integrating custom ground rules into a vector database.

- **Haazri-Hub**   GitHub, Dec 2024
  Engineered a mobile attendance application for university use. Integrated YOLO for face recognition, Django for the backend server, and Flutter for the mobile app. This project significantly enhanced my skills in full stack mobile development and computer vision.

- **Toxic Comment Classifier**   Research article, April 2024
  Developed a multi-class toxic comment classifier using LSTM and BERT, achieving an F1 score of 0.83 on a 159,000-comment dataset. This research led to improved model comparison techniques and was recognized in academic circles for effective model comparison.

CERTIFICATIONS

- **Machine Learning and deep learning Specialization** – Coursera (Andrew Ng) - Gained foundational knowledge in ml and dl algorithms and their practical applications.

- **Open Source LLMOps** - Edx - Learned best practices for deploying and maintaining large language models.

- **Django 4 and Python Full-Stack Developer Masterclass** - Udemy - Developed proficiency in building full-stack web applications using Django and Python