Syed Muhammad Danish Mehmood

AGENTIC AI TRAINEE | GENERATIVE AI | LLM APPLICATIONS

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Portfolio: danish-mehmood-ai.vercel.app

PROFILE

Computer Science graduate building Python applications with AI agents, retrieval-augmented generation, and LLM APIs. Built a 3-agent CrewAI research workflow and a LangGraph RAG assistant with hybrid search, citation verification, and evaluation tooling. Seeking an Agentic AI Trainee role.

TECHNICAL SKILLS

AI and Agents: Python, Generative AI, LLMs, CrewAI, LangGraph, LangChain, agent orchestration, tool calling, prompt engineering, OpenAI API, Gemini API

RAG and Reliability: Qdrant vector database, embeddings, BM25 hybrid search, structured outputs, citation verification, guardrails, LLM evaluation, token and cost tracking

Application Engineering: FastAPI, Flask, REST APIs, Pydantic, SQL, SQLite, Firebase, React, JavaScript, Flutter, Git, GitHub, Linux, automated testing

PROJECTS

Notebook RAG - Agentic Research Assistant Oct. 2026 - Present

Python, FastAPI, LangGraph, LangChain, Qdrant, Gemini API, React GitHub

- Built a Python/FastAPI research assistant that retrieves document evidence using Gemini embeddings and BM25 hybrid search in Qdrant, with a React interface.
- Designed a LangGraph workflow to rewrite queries, grade evidence, and limit retrieval to 2 attempts; added claim-level citation verification, answer repair, and abstention when sources are insufficient.
- Implemented an evaluation harness for faithfulness, citation precision, Recall@k, and MRR, with per-run token, latency, and estimated cost tracking.

Synapse - Multi-Agent Market Research System 2026

Python, CrewAI, OpenAI API, Flask, Socket.IO, React, SQLite GitHub

- Built a 3-agent CrewAI workflow that passes web research to a strategic analyst and executive editor to assemble a report with 9 sections covering trends, SWOT analysis, risks, and recommendations.
- Implemented custom web-search tool calling, sequential task handoffs, and workflow automation; streamed agent progress through Socket.IO and saved reports to SQLite for review and Markdown export.

Sign Language to Text and Speech - AI Application Final-Year Project

Python, Gemini API, Flask, Pydantic, Flutter, Firebase GitHub

- Connected a Flutter image/video application to a Flask backend and Gemini multimodal API for sign-language interpretation, returning structured text for frontend speech output.
- Added Pydantic response validation, Firebase authentication, provider deadlines, and temporary-media cleanup; covered backend request and provider error handling with automated tests.

EDUCATION

Karachi Institute of Economics and Technology (KIET) Karachi, Pakistan

Bachelor of Science in Computer Science 2022 - 2026

Intermediate Pre-Eng. BIEK 2020 - 2021

O' Levels Computer Science, University of Cambridge 2018 - 2019

EXPERIENCE

Shahnawaz Private Limited Jan. 2025 - Mar. 2025

IT and Networking Intern, Technology Division

- Supported software development and networking work during a 3-month internship in the Technology Division.

DMK E STORE 2025 - Present

Owner & CEO, a gaming e-Store entrepreneurial ventures

- Generated PKR 2.5M+ in cumulative sales since 2025, while managing sourcing, pricing, and sales.

CERTIFICATIONS AND TRAINING

IBM - AI Forms and Function Sep. 2026

HackerRank - Python Skill Test Certificate Sep. 2026

NAVTTC - CYBERSECURITY CEH May. 2026

Y Combinator - Working as a Software Engineer at a Start Up; Deloitte Australia - Technology Virtual Experience Program; EY - Technology Risk VirtualProgram; Master Card - Cybersecurity