

Ghulam Mohiyu Ud Din

AI Engineer | Full Stack Developer

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Profile

AI Engineer specializing in building production-ready LLM-powered applications, RAG pipelines, and intelligent automation systems. Experienced in integrating Groq, Gemini AI, and vector databases (PGVector, Qdrant) into full-stack products using Next.js, FastAPI, and Django. Designed and shipped EmbedBot, an AI SaaS chatbot with semantic search and multi-turn conversation memory, and an AI Knowledge Analyst Copilot with a LangGraph-powered RAG pipeline. Leveraging n8n to architect AI-powered workflows and autonomous agents. Focused on delivering scalable, real-world AI solutions that solve meaningful problems.

Education

Punjab College, Lahore, ICS Physics

Aug 2021 – 2023

University of Engineering and Technology, Lahore, BS in Computer Science

Sept 2023 – 2027

- CGPA: 3.679/4.0

- **Relevant Coursework:** Data Structures, Algorithms, Object-Oriented Programming, AI, DBMS

Experience

AI-Enhanced Web Developer (Intern), Nexium

July 2025 – Aug 2025

- Engineered **Resume Tailor**, an LLM-powered platform using Gemini AI and n8n workflows to generate ATS-optimized resumes from job descriptions.
- Designed AI automation pipelines with n8n, integrating Gemini AI and Supabase for end-to-end intelligent document processing.
- Shipped production full-stack app with Next.js, Tailwind CSS, Magic Link authentication, and serverless backend.

Teaching Assistant (TA), University of Engineering and Technology, Lahore

2024

- Assisted faculty in teaching core CS subjects, PF and OOP.
- Conducted lab sessions, guided juniors, and evaluated assignments/projects.

Projects

AI Knowledge Analyst Copilot – *Next.js, FastAPI, LangGraph, Qdrant, Groq LLM, Supabase*

- Built a full-stack RAG platform where users upload documents (PDF, DOCX, TXT) and chat with them through an intelligent pipeline with conversation history, document filtering, and feedback.
- Architected a **LangGraph** state machine with 6 nodes: query rewriting → retrieval → reranking → answer generation → confidence evaluation → fallback, with automatic retry loop for low-confidence answers.
- Integrated **Qdrant** vector database with **Sentence Transformer** (384-dim) embeddings and **Groq LLM** (Llama 3.3 70B) for sub-second semantic retrieval and context-aware responses.
- Shipped production features including thumbs up/down feedback, conversation title editing, in-memory rate limiting, analytics tracking, re-ingest on failure, and full **Docker Compose** deployment.

EmbedBot – AI Chatbot SaaS – *Next.js, FastAPI, PGVector, Groq LLM, Supabase*

- Built a production-ready SaaS platform allowing users to upload documents (PDF, DOCX, XLSX, MD) and deploy an AI support chatbot on any website via an embeddable script tag.
- Engineered a **RAG pipeline** – documents parsed, chunked with paragraph/sentence-aware splitting, embedded via **Sentence Transformer** (384-dim), and stored in **PGVector** for sub-second semantic search.
- Integrated **Groq LLM** (Llama 3.3 70B) with 6-message conversation memory for context-aware, accurate responses across multi-turn sessions.
- Shipped **lead capture**, bot customization (colors, welcome message), and a real-time analytics dashboard with 7-day usage charts.

Resume Tailor – *Next.js, Supabase, n8n, Gemini AI*

- AI-powered platform that analyzes job descriptions and generates ATS-optimized resumes tailored to each role.
- Automated end-to-end resume generation workflow using **n8n** and **Gemini AI** with Supabase Magic Link authentication.
- Reduced manual resume customization time by automating keyword alignment and section restructuring.

SkillBridge – Job Portal – *MERN, Cloudinary, JWT*

- Full-stack job portal with role-based access for employers and job seekers, supporting job posting, applications, and resume tracking.
- Implemented JWT authentication, real-time search filtering, pagination, and responsive Tailwind CSS UI.

Skills

- **AI & Automation:** RAG Pipelines, LangGraph, LangChain, Groq LLM, Gemini AI, PGVector, Qdrant, Sentence Transformer, n8n, AI Agents, SaaS Architecture
- **Backend:** Node.js, Express.js, Django, Flask, FastAPI, REST APIs
- **Databases:** PostgreSQL, MongoDB, SQLite, PGVector, Qdrant, Supabase
- **Frontend:** React, Next.js, Tailwind CSS, HTML5, CSS3
- **Languages:** JavaScript, Python, C++, C#
- **Tools:** Git, GitHub, VS Code, Cloudinary, Vercel, Docker