

MUHAMMAD HUSSNAIN

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🌐 LinkedIn | 🐙 Github | 📁 Portfolio

Summary

Full-Stack AI Engineer specializing in Autonomous AI Agents and LLM Systems, currently completing a Bachelor's in Information Technology at the University of Education, Lahore. Experienced in architecting and deploying production-ready intelligent systems using Python, FastAPI, Next.js, OpenAI Agent SDK, and MCP Server. Proven ability to integrate LLM APIs, RAG pipelines, Legal-BERT, and vector databases into scalable applications. Co-developed an AI Legal Assistant as a Final Year Project – a dual-mode platform delivering instant legal guidance to Pakistani citizens through NLP-driven FIR analysis, document generation, and multilingual 3D avatar interaction. Passionate about building autonomous agents and agentic workflows that solve real-world problems at scale.

Education

University of Education

Bachelor's in Information Technology – CGPA: 3.18

Lahore, Pakistan

Aug 2024 – June 2026

University of Management and Technology

ADP in Software Engineering – CGPA: 3.54

Lahore, Pakistan

Nov 2022 – July 2024

Projects

AI Legal Assistant (FYP) | React.js, Django REST, PostgreSQL, Redis, Legal-BERT | 🐙 Jan 2026 – Jun 2026

- Architected a full-stack AI-powered legal guidance platform serving Pakistani citizens through two specialized modes: **Victim Mode** and **Practicing Lawyer Mode**, built on a React.js frontend with Django REST Framework backend and PostgreSQL database.
- Victim Mode** – Implemented FIR Upload & OCR pipeline using Tesseract/EasyOCR to extract text from scanned FIR PDFs/images; integrated Draft Complaint generation via Legal-BERT RAG pipeline over a corpus of 969 Pakistani laws (PPC & CrPC sections).
- Built a **Secure Evidence Vault** with AES-256 encrypted file storage for sensitive multimedia, a **Case Timeline Report** generator producing chronological incident logs, and a **3D Avatar Chat** interface powered by Redis session memory for contextual multilingual (English & Roman Urdu) guidance via OpenAI Whisper/Google STT.
- Practicing Lawyer Mode** – Developed a **Live Voice Chamber** for real-time secure client consultations, **Client Workspaces** for organized per-client data management, and a **Case Management** module to track legal files, evidence, and court documentation.
- Integrated a **Hearing Calendar** with automated notification badges for upcoming court dates, a **Case Strength Analyzer** using Hugging Face Transformers to evaluate legal probabilities and viability scores, and a **Help & Support** portal for technical and administrative assistance.

AI Employee | Python, OpenAI Agent SDK, LLM APIs, Gmail API, WhatsApp API, Obsidian Vault | 🐙 Mar 2026

- Engineered a fully autonomous AI agent that acts as a virtual employee, handling end-to-end file system management, Gmail inbox operations, and WhatsApp communication without manual intervention.
- Integrated **Obsidian Vault** as a structured knowledge base, enabling the agent to persist, retrieve, and cross-reference notes, decisions, and task history using OpenAI Agent SDK memory and vector search.
- Built intelligent **Gmail automation** workflows including email triage, context-aware reply drafting, label management, and priority summarization via LLM-powered chains connected to the Gmail API.
- Implemented **WhatsApp integration** for receiving task instructions and sending status updates, enabling natural language interaction with the agent through messaging; designed **file system automation** for intelligent document organization, renaming, archiving, and retrieval across local directories.

Technical Skills

Backend: Python, FastAPI, Django REST Framework

Frontend: HTML, CSS, JavaScript, React.js, Streamlit, Tailwind CSS

Databases: PostgreSQL, MySQL

Tools & Technologies: Git, GitHub, Postman, Linux, Obsidian, VS Code, Cursor

AI/ML: LLM API, OpenAI Agent SDK, MCP Server, Legal-BERT, RAG, OCR

Courses & Certifications

Agentic AI – Level 1 Developer

June 2025

PIAIC (Presidential Initiative for AI & Computing) | Cert No: 2026010252925

Agentic AI Professional – Level 2 Developer

July 2025

PIAIC (Presidential Initiative for AI & Computing) | Cert No: 2026030252925

Prompt & Context Engineering – Level 1 Developer

Nov 2025

PIAIC (Presidential Initiative for AI & Computing) | Cert No: 2026050252925