Humayoun Akhtar

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PROFESSIONAL SUMMARY

Results-driven AI Engineer with hands-on experience in AI Automation, AI Agents, and Generative AI systems. Engineered 10+ AI agents and deployed production-ready LLM-powered applications across real estate, healthcare, and enterprise automation. Skilled in RAG pipelines, LangChain, LangGraph, multi-agent architectures, and end-to-end AI product development.

WORK EXPERIENCE

AI Engineer – Media Junkie (UK) · Full-time — **United Kingdom · Remote | Jul 2025 – Present**

- Engineered 10+ AI Agents for real estate automation including WhatsApp property assistants, Telegram bots, cold email agents, and AI-powered call agents that capture structured lead data into CRM systems.
- Built LLM-powered property chatbot (FindaGPT) using RAG architecture and an ML-based recommendation engine using user location, price, and budget; automated data cleaning and web scraping pipelines for listing data.
- Designed cold outreach AI agents (email & WhatsApp) with personalization logic to automate bulk marketing campaigns at scale. *Tech: Python, LLMs, LangChain, RAG, NLP, AI Agents, Web Scraping, N8N, GoHighLevel.*

AI Engineer – Jeetay Raho (NASTP) · Contract — **Lahore, Pakistan · On-site | Apr 2025 – Jul 2025**

- Led end-to-end development of the 'Health Companion' healthcare chatbot, fine-tuning LLMs to handle health queries on diet, medication benefits/side effects, and lifestyle guidance.
- Integrated Firestore (user profiles, medical history, vitals) and BigQuery (nutrition plans); built a conversational memory system summarizing health trends for personalized insights.
- Enforced ethical AI standards: empathetic tone, data privacy compliance, and non-diagnostic boundaries. *Tech: Python, LLMs, NLP, RAG, Firestore, BigQuery, LangChain.*

AI Engineer Intern – Evren AI · Internship — **Lahore, Pakistan · On-site | Dec 2024 – Apr 2025**

- Developed and tested AI Agents and automation workflows using LLMs, NLP, and LangChain; contributed to production deployment pipelines and agent orchestration.
- Gained hands-on experience in LLM integration, prompt engineering, and debugging complex agent behaviors alongside senior engineers.

SELECTED PROJECTS

MediMind AI – Agentic RAG Medical Assistant | Live Demo: https://medicalbot-snz0.onrender.com/app/

- Built an AI medical knowledge assistant combining agentic AI, LLMs, and RAG for context-aware conversations about medical information; orchestrated with LangGraph and LangChain using Pinecone for retrieval.
- Served via FastAPI and containerized with Docker. *Tech: Python, LangChain, LangGraph, RAG, FastAPI, Pinecone, Docker.*

TravelAI – Multi-Agent AI Travel Planning Assistant | Live Demo: https://travel-agent-wwpx.onrender.com

- Developed a multi-agent platform where specialized AI agents generate personalized itineraries, explore accommodation, analyze weather, and manage trip budgets; integrated tools via MCP.
- *Tech: Python, LangChain, FastAPI, Docker, MCP, Multi-Agent Systems.*

SkinAI – Explainable AI Skin Lesion Screening Platform | Live Demo: https://skincancer-ai.onrender.com

- Built a full-stack deep-learning platform using EfficientNetV2-B0 to classify dermoscopic images (88.33% accuracy on 660 test images), with Grad-CAM explainability and automated PDF screening reports.
- *Tech: Python, FastAPI, Deep Learning, Computer Vision, Vision Transformer, Explainable AI.*

BNB Booking – Short-Stay Accommodation Platform | Live Demo: https://bnbbooking.net/

- Built and launched a short-stay accommodation platform using Google Antigravity. Implemented destination/date/guest search, property discovery, host onboarding entry points, guest accounts, wishlists, in-app messaging, and a visitor-assistant chatbot.
- *Tech: React, FastAPI, Tailwind CSS, Chatbot, Full-Stack AI.*

TECHNICAL SKILLS

Programming & Data: Python (NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, TensorFlow, Keras), SQL (MySQL), API Integration, Web Scraping

Generative AI & LLMs: LLMs, RAG, AI Agents & Multi-Agent Systems, LangChain, LangGraph, Model Context Protocol (MCP), Phidata, Prompt Engineering, Conversational AI, Chatbot Development

AI / ML / DL: Supervised & Unsupervised Learning, Classification, Regression, Clustering (K-Means), Deep Learning (CNN, RNN), Model Evaluation, Feature Engineering, Computer Vision

NLP: NLTK, SpaCy, Text Preprocessing, Named Entity Recognition (NER), Sentiment Analysis, Semantic Search

AI Automation: Business Process Automation, AI Cold Calling Agents, Email/WhatsApp Outreach Automation, WhatsApp & Telegram Bots, Recommendation Systems, N8N, GoHighLevel

Cloud & Tools: Google Cloud (BigQuery, Firestore), Microsoft Azure (Azure AI Services), Docker, Git, GitHub, Jupyter Notebook, Streamlit, Power BI

CERTIFICATIONS

- **Microsoft Certified: Azure AI Engineer Associate** – Microsoft (Nov 2024) | Credential ID: CAEDA2-IE4D00
- **Introduction to Retrieval Augmented Generation (RAG)** – Duke University (Sep 2024)
- **Career Essentials in Data Analysis** – Microsoft & LinkedIn (Oct 2024)

EDUCATION

Master of Science in Data Science (Artificial Intelligence) – The Superior University, Lahore — **May 2024 – May 2026 | Grade: A**

Relevant coursework: Machine Learning, Deep Learning, Generative AI, Data Science, Artificial Intelligence, Database Management, Statistical Analysis, NLP.