

MUHAMMAD USMAN KHALIL

AI ENGINEER / WEB DEVELOPER

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Experienced in AI, machine learning, neural networks, and agentic AI using Python, TensorFlow, and Keras. Proficient in deploying production-ready API solutions with React, Django, and FastAPI. Skilled in building intelligent systems including multi agentic AI chatbots with RAG and voice agents using LangGraph for real-time, context-aware interactions. Strong background in full-stack web development using PHP, SQL, Django, and React. Experienced with Power BI for data-driven decision-making and adept at data visualization to effectively communicate complex insights and drive informed strategies.

AREA OF EXPERTISE

- Machine Learning (tensorflow, pytorch)
- Neural Network(keras)
- Multi agentic AI, n8n
- LangChain, Dialogflow
- Data Analyst (Excel , python , PowerBI)
- Web development (django, PHP, React, FastAPI)
- Dockor, Github
- Process Automation

PROFESSIONAL EXPERIENCE

University Of Lahore (SGD campus)

Database Intern

Developed and implemented an organizational database to oversee student assessments, including quizzes and assignments, which resulted in improved visibility of key performance metrics and enabled easier decision-making in grading at the organizational level.

PROJETS

Plant Disease Detection and Treatment (FYP)

- The project uses a Convolutional Neural Network (CNN) to analyze plant images and determine if they are healthy or diseased.
- A FastAPI-based backend handles image upload, prediction , and model inference efficiently

Liver Cancer Detection and Diagnosis using Deep Learning (Research Project)

- Developed a binary classification system using EfficientNet-B0, TinyViT, and MobileViTv2 models to detect Hepatocellular Carcinoma (HCC) from DICOM CT scan images converted to JPG format, achieving up to 98%.
- Deployed the trained models using FastAPI, enabling image upload, inference, and HCC prediction through a user-accessible web API.

AI Chatbot for Financial & Stock Market

- Developed an AI chatbot using Groq, Agno, and DeepSeek for financial and stock-related queries.
- Integrated real-time stock data using yfinance for accurate insights.

EDUCATION

Bachelor of Science in Computer Science

Oct 2021 - June 2025

University of Lahore (Sgd Campus)

- Major in AI & ML.
- FYP on "Technological Advancements within the current Agriculture Industry".

ADDITIONAL INFORMATION

- Languages:** English, Urdu.
- Certifications:** Probability & Stat for ML (coursera) , Ethical Hacker Course (Cisco) , Data Analytics & AI workshop (atomcamp).
- Awards/Activities:** First Position in speed programming competition(2024), Onboarding Project Lead in internship.

LINKS



www.linkedin.com/in/khalilusman70



<https://github.com/khalilusman>