Mohammad Fayas Khan
Phagwara, Punjab, India
+91-8317684302 fayaskhanmohammad@gmail.com linkedin.com/in/mohammadfayaskhan github.com/MohammadFayasKhan

Training

AI Engineer Launchpad: Mastering LLMs and Agentic AI | *LPU* | *Certificate Link* **Jun'2026 - Jul'2026**

- Completed a 50-hour, 5-week hands-on program covering Generative AI, Large Language Models, Transformer architecture, tokenization, Prompt Engineering, LLM APIs, Structured Outputs, REST API design and FastAPI.
- Applied Function/Tool Calling, LoRA/QLoRA fine-tuning, RAG, Agentic AI workflows, LLM evaluation and guardrails in end-to-end AI application development, including the CodeExplain capstone with FastAPI, Pydantic and Docker.

Projects

AI Powered Crop Intelligence Rover | *Python, PyTorch, YOLO, FastAPI, React, ESP32-CAM* **Sep'2026 - Oct'2026**

- Trained an EfficientNetV2-S classifier on ~54K images across 38 classes, achieving 95.13% test accuracy and 0.9354 Macro F1; extended the pipeline with YOLO detection, Mobile-UNet segmentation and Grad-CAM.
- Built an ESP32 + ESP32-CAM rover with environmental sensors and a 4-DOF robotic arm, enabling close-up inspection, image capture and voice-based field interaction through XiaoZhi AI Assistant.
- Deployed inference through FastAPI and a React dashboard, delivering disease predictions, Grad-CAM heatmaps, sensor telemetry and field-risk insights.
- GitHub Repository Link: **https://github.com/MohammadFayasKhan/AIPoweredCropIntelligenceRover**

LPU UMS Agent | *Python, TypeScript, FastAPI, Chrome Extension (MV3), IndexedDB* **Sep'2026 - Oct'2026**

- Architected an agentic Chrome extension for live LPU UMS sessions, automating 3 workflows (attendance analysis, exam date-sheet, seating plan) via DOM-first extraction and discrepancy validation across legacy tabular and Angular card layouts.
- Orchestrated a closed-loop agent (observe, ground, act, re-observe, verify) with IoU and text-similarity grounding and human-controlled CAPTCHA/security handling, keeping attendance calculations deterministic and outside the LLM.
- Implemented privacy-first IndexedDB storage, a stateless FastAPI backend and a 3-model LLM fallback chain, sending minimal course context with no credential or cookie handling; covered by 139 automated tests.
- GitHub Repository Link: **https://github.com/MohammadFayasKhan/LpuUmsAgent**

Code Explain | *Python, React, TypeScript, FastAPI, Groq, Gemini, Docker* **Jun'2026 - Jul'2026**

- Developed a full-stack AI code tutor (React, TypeScript, Monaco Editor, 5 FastAPI endpoints) generating plain-English explanations, line-by-line commentary, time/space complexity analysis, test-case traces, quizzes and follow-up chat.
- Validated LLM output with Pydantic schemas and a one-shot self-repair step, routing requests across 3 models on Groq and Gemini through a provider abstraction with automatic fallback and exponential-backoff retries.
- Packaged a multi-stage Docker container, deploying live on Render with a stateless backend and client-side history.
- GitHub Repository Link: **https://github.com/MohammadFayasKhan/CodeExplain**

Certificates

Oracle Agentic AI Certified Foundations Associate **Sep'2026**
Oracle My Learn — Certificate Link

Machine Learning and Image Processing **Dec'2025**
NASSCOM Foundation (thingQbator) — Certificate Link

Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate **Aug'2025**
Oracle My Learn — Certificate Link

Technical Skills

Languages: Python, C++, Java, C, JavaScript, SQL

Technologies/Frameworks: React, FastAPI, PyTorch, scikit-learn, LangChain, LangGraph, Docker, Git, GitHub

Skills: Machine Learning, Deep Learning, Computer Vision, NLP, LLMs, RAG, Agentic AI, REST APIs, PostgreSQL, Data Structures and Algorithms, OOP, DBMS, Embedded Systems, Problem-Solving

Education

Lovely Professional University Punjab **2024 – 2028**
Computer Science and Engineering — CGPA: 9.66 *Phagwara, Punjab*

Sri Chaitanya **2022 – 2024**
12th with Science — Percentage: 95.7% *Vijayawada, Andhra Pradesh*

Kommareddy High School **2021 – 2022**
10th with Science — Percentage: 95.6% *Bantumilli, Andhra Pradesh*