

Raja Danish Ali

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PROFESSIONAL SUMMARY

Computer Engineer focusing on AI, **Computer Vision** and **LLMs (RAG, fine-tuning, deployment)**. Hands-on with **real-time detection, tracking**, and **offline AI assistants**. Applied R&D at **KRL**; experienced in **embedded deployment** and **system optimization**.

EDUCATION

Institute of Space Technology (IST), Islamabad

Sep 2020 – June 2024

Bachelors of Science in Computer Engineering (BSCE)

WORK EXPERIENCE

Research & Development [KRL Ress Lab] –Internship

Dec 2024 – June 2025

- **Developed** an **AI-based calibration model** for the **Pirani Gauge**, improving measurement accuracy by **15%**.
- **Engineered** enhancements to a **G-Code sender**, extending functionality from **6-axis to 9-axis**, boosting precision in **industrial automation**.
- **Designed** and **implemented** an **SQL database** to manage intern activities and track project outcomes, improving reporting efficiency.

PROJECTS

FYP: AI-Based Fire Detection System

- Developed a **real-time fire, smoke, spark, and flame detection system** using **YOLOv8-nano**.
- Integrated **email + audio alerts**, achieving **high accuracy in real-time processing**.

Doctor Pulse - Offline Healthcare AI Assistant

- Built with **Google Gemma-3n + RAG pipelines** for healthcare & crop support.
- Integrated text + voice chat, optimized for low-connectivity regions.

Multi-Person Tracking & Pose Estimation System

- **Human-specific tracking** with unique IDs using Deep SORT.
- Integrated **pose estimation (MediaPipe/OpenPose)** for skeletal keypoints.

Face Recognition System

- Built real-time identity verification system using embeddings + YOLO, optimized for speed and accuracy.

SKILLS

Programming: C/C++, Python, SQL.

FrameWorks: PyTorch, TensorFlow, Keras, Hugging Face Transformers, LangChain.

Computer Vision: YOLO, OpenCV, MediaPipe.

NLP/LLM: Fine-tuning, RAG, Vector Databases.

Development and Tools: Git/ GitHub, Google Colab, FastAPI, Docker, Linux, Embedded Systems.

Cloud & Databases: MySQL, Firebase

CERTIFICATES

Google IT Automation with Python (**Coursera**)

Generative AI Fundamentals (**Coursera**)

Deep Learning Specialization (**Coursera**)