

# Naveen Khan

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## Professional Summary

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Computer Systems Engineering graduate with a strong passion for Artificial Intelligence and Machine Learning. Skilled in Python and experienced in building intelligent, practical solutions that solve real-world problems. With hands-on experience in AI-driven projects and modern development tools, I am committed to continuously learning, innovating, and creating technology that truly makes an impact.

## Education

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**Mehran University of Engineering & Technology**

*Bachelor of Engineering in Computer Systems Engineering | CGPA: 3.6/4.0*

Jamshoro, Pakistan

Nov 2021 – Jan 2026

## Work Experience

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**AI Engineer Intern**

*Civil Aviation Authority of Pakistan (CAA)*

Jul 2025 – Aug 2025

*Hyderabad, Pakistan (On-site)*

- Engineered an enterprise conversational system using **Large Language Models (LLMs)** that reduced internal query resolution time by **60%**.
- Architected a semantic retrieval framework leveraging **Retrieval-Augmented Generation (RAG)** and embedding-based document indexing across **100+ organizational PDFs**.
- Optimized prompt configurations and evaluation benchmarks to enhance contextual relevance and response consistency.
- Collaborated with technical teams on AI workflows, data preprocessing, and model integration for enterprise-level applications.

**AI Engineer Intern**

*Itsolera Pvt. Ltd.*

Jan 2026 - Feb 2026

*Islamabad, Pakistan (Remote)*

- Developed and fine-tuned **DenseNet121 CNN** models for medical image classification, attaining **93% evaluation accuracy** through systematic hyperparameter experimentation.
- Oversaw end-to-end ML workflows including dataset augmentation, model training, cross-validation, and deployment, ensuring production-ready healthcare solutions.
- Delivered an interactive clinical support tool via **Streamlit**, enabling automated diagnostic predictions with confidence scores for clinician-facing use.

## Projects

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**AI Chatbot Assistant (CATI)**

*Conversational System with Retrieval-Augmented Generation*

- Architected a domain-adaptive dialogue agent integrating **Mistral LLM**, **Groq API**, and **Hugging Face** embeddings with contextual RAG retrieval pipelines.
- Accelerated response efficiency by **40%** through **FAISS** semantic indexing optimization and inference workflow refinement across 100+ documents.

**Medical Disease Diagnosis Agent**

*Deep Learning Imaging Framework*

- Trained a **DenseNet121** classifier on MRI data, achieving **95% training** and **93% validation accuracy** with zero overfitting via augmentation and regularization.
- Constructed data transformation pipelines and deployed a clinician-facing **Streamlit** interface for real-time MRI/X-ray diagnostic predictions with confidence scores.

**Multimodal Smart Wearable for Personal Safety**

*Real-time Threat Detection and Fast Alert System*

- Implemented a **YOLO**-based vision detection pipeline reaching **91% precision** in threat recognition, with multilingual voice commands and a panic button for rapid emergency response.
- Integrated geospatial tracking and automated alert mechanisms for real-time notifications; **awarded 2nd place** at IEEE Computer Society Project Exhibition, Mehran University 2025.

## Technical Skills

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**Programming:** Python, C++

**Artificial Intelligence:** Machine Learning, Retrieval-Augmented Generation Pipeline, Computer Vision, LLM

**Model Development:** Data Transforming, Data-Annotation, Data-Augmentation, Feature Engineering, EDA, Performance Tuning, Evaluation Metrics

**Data Infrastructure:** Relational Databases, MySQL, SQL Workbench, Vector Databases

**Tools:** Roboflow, GitHub, Google Colab, Jupyter Notebook, VS Code