



# Muhammad Usman Shah

Final-Year Electrical Engineering Student  
| Machine Learning & Computer Vision

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📍 Rahim Yar Khan

Final-year Electrical Engineering student at Namal University with project-based experience in Machine Learning and Computer Vision. Worked on a Human Re-Identification system for crowd monitoring involving person detection, tracking, Re-ID feature extraction, and threshold-based identity matching. Seeking entry-level Machine Learning and Computer Vision roles.

## EDUCATION

### ○ Bachelor of Science in Electrical Engineering

Namal University, Mianwali

Oct 2022 - Aug 2026 | Mianwali, Pakistan

## PROJECTS

### Human Re-Identification for Crowd Management

Final Year Design Project | 2025–2026

*Developed a Human Re-ID workflow for unique-person identification in crowd videos.*

#### Tasks / Achievements

- Applied YOLOv8, ByteTrack, ResNet-50, OSNet, feature extraction, cosine-similarity matching, and threshold tuning for identity recovery.

### Air Quality Index Prediction using Machine Learning

Machine Learning Project | 2025

*Developed a machine learning model to predict AQI from environmental data.*

### Digital Image Processing — Lane and Edge Detection

Digital Image Processing Project | 2025

*Applied image processing techniques for lane detection and edge detection.*

## SKILLS

Python

Google Colab

YOLOv8

ResNet-50

OSNet

Image Preprocessing

MATLAB

Model Evaluation

MS Office

OpenCV

Technical Presentation

Team Collaboration

Professional Communication

## CERTIFICATES

### Supervised Machine Learning

Coursera, taught by Andrew Ng | Aug 2025

### Online Leadership Course

Aspire Institute | May 2023 – Jun 2023

### Namal Tech Expo Robotics Competition

Participated in the line-following robot competition using an Arduino-based robot. 2023

## LANGUAGES

### Urdu

*Native or Bilingual Proficiency*

### English

*Professional Working Proficiency*

## INTERESTS

Basketball

Reading

Travelling