



# AHMAD RAZA

AI & COMPUTER VISION ENGINEER

## CONTACT

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## EDUCATION

- Kyungsung University – Busan, South Korea  
Master of Global IT Engineering  
2024 – Present  
CGPA 4.5/4.5
- GC University Lahore – Pakistan  
Bachelor of Computer Science  
2019-2023  
GPA: 3.6 / 4.0

## SKILLS

### Deep Learning

- CNNs, U-Net, Residual Networks.

### Computer Vision

- Image Restoration (Snow, Haze, Sand-Dust)
- Object Detection (YOLO)
- Image Enhancement & Reconstruction
- Preprocessing & Data Pipelines

### Programming

- Python, PyTorch, TensorFlow, OpenCV, Scikit-learn.

## LANGUAGES

- English: Fluent
- Urdu: Native
- Korean: Basic (KIIP level 4)

## PROFILE

AI & Computer Vision Engineer specializing in deep learning-based image restoration, enhancement, and computer vision applications. Experienced in developing custom neural networks, feature-fusion architectures, mask-guided reconstruction models, and real-world visual enhancement solutions. Passionate about solving complex image degradation problems such as snow, haze, and sand-dust using state-of-the-art deep learning techniques.

## WORK EXPERIENCE

### PUBLICATIONS

- Mask-Guided Residual Reconstruction Network (MGRRN) for Image Desnowing  
Submitted to KCI Journal | 2025
  - Developed a mask-guided deep learning model for snow removal.
  - Used residual reconstruction to restore missing textures and structures.
  - Applied multi-loss optimization (L1, SSIM, VGG perceptual loss).
  - Achieved strong restoration quality on Snow100K datasets.
- F-Net: Snow Mask Generation Feature-Fusion Network for Image Desnowing
  - Designed a multi-scale feature-fusion architecture for accurate snow mask prediction.
  - Improved snow detection across dense, thin, and large flakes.
  - Achieved high PSNR/SSIM scores on Snow100K benchmarks.
  - Presented as a conference research contribution.
- Heart Disease Prediction using Ensemble Machine Learning
  - Built an ensemble model combining RF, LR, and DT classifiers.
  - Engineered features to boost diagnostic accuracy.
  - Achieved 93%+ accuracy on the UCI dataset.
  - Published as a conference paper in 2025.

### PROJECTS

- DFCRN – Deep Fully Convolutional Regression Network for Haze Removal
  - Implemented regression-based haze removal using transmission map estimation.
  - Enhanced visibility and depth perception in single-image haze.
- Sand-Dust Image Enhancement (Red & Blue Channels)
  - Built enhancement pipeline using color channel manipulation.
  - Improved clarity and contrast in sandstorm-degraded images.
- YOLO + DeepSORT Real-Time Object Tracking
  - Developed a real-time person and vehicle tracking system.
  - Integrated YOLOv8 for detection and DeepSORT for identity tracking.