Muhammad Ali

AI/ML Engineer

"AI/ML Engineer with 8+ months of experience in Computer Vision, Deep Learning, and AI-powered automation. Passionate about building, deploying, and scaling intelligent systems in collaborative environments."

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INTERNSHIPS

AI Engineer Intern *On-Site*

The Hexaa

01/2025 - 03/2025,

ML Engineer Intern *On-Site*

UET-AI Research Lab

08/2024 - 12/2024,

AI Developer Intern *Remote*

YoungDev Interns

04/2024 - 05/2024,

PROJECTS

EchoSign

(FYP)

In my FYP I made a Flutter camera App that can detect Sign Language Gestures using Computer Vision technologies and translate them into Text and Voice in real-time using Deep Learning Models.

Cardiovascular Disease Risk Prediction System

(During Internship)

Developed a dashboard using Dash to visualize EDA, preprocessing steps, and apply supervised (Random Forest, Neural Network) and unsupervised (K-Means) learning techniques. Built an interactive form allowing users to input health data and receive personalized heart disease risk predictions.

Breast Cancer Histopathological Image Grading

(During Internship)

Automated the grading of breast cancer severity on histopathological images, training models like MobileNet, VGG16, VGG19, ResNet, and EfficientNet to classify images across three severity grades.

Corn and Cotton Leaf Disease Classification

(During Internship)

ICreated disease classifiers for corn and cotton leaves, training models such as CNN, MobileNet, ResNet, DenseNet, and custom ResNet/DenseNet variations to identify crop diseases.

Aerial Object Detection with YOLOv11 & RetinaNet

(During Internship)

Trained and optimized YOLOv11 and RetinaNet models on the VisDrone dataset (drone-captured aerial imagery) to detect and localize objects (e.g., vehicles, pedestrians) in real time. Implemented model improvements for small-object detection in complex backgrounds.

Alzheimer's Disease Detection Using Deep Learning

(During Internship)

Developed a classification model for Alzheimer's detection using MRI brain images, training on architectures like InceptionV3, MobileNet, VGG16, and a custom CNN.

Google Maps Scraper & AI Caller

(During Internship)

Developed a Python/Flask web app with PostgreSQL that scrapes business data from Google Maps, processes queries via VAPI/Twilio, and ranks optimal businesses using ML. Automated cold-calling and response analysis to streamline lead generation.

SKILLS

AI/ML:

Python | Machine Learning (Scikit-learn) | Deep Learning (PyTorch, TensorFlow) | Computer Vision (YOLO, RetinaNet, OpenCV)

Backend/Tools: Flask/FastAPI | Dash | Docker | AWS

Programming: Java | C++

Databases: PostgreSQL | Firebase

Mobile: Flutter | Android

EDUCATION

BS Computer Science (CGPA: 3.38) (2020 - 2024)

University of Management and Technology, Lahore, Pakistan

FSC **(Marks: 73%) (2018 - 2020)**

Punjab Group of Colleges, Lahore, Pakistan

ONLINE CERTIFICATE

Supervised Machine Learning: Regression & Classification:

https://coursera.org/share/e8bf441a8583d5d4108576c27714d675

LANGUAGES

English

Professional Working Proficiency

Urdu

Full Professional Proficiency

Punjabi

Limited Working Proficiency

Achievements

Research Paper Presentation and Acceptance:

Successfully presented my Final Year Project (FYP) research, "EchoSign: A Mobile Application for Sign Language Recognition and Translation", at the 5th International Conference on Innovative Computing (ICIC 2024). The paper has been accepted by IEEE for publication.

REFERENCES

Dr Talha Waheed, Assistant Professor, Dept of CS, UET, Lahore
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Sowaiba Khan, Senior Lecturer, Dept of CS, UMT, Lahore
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Dr Shaista Habib, Assistant Professor, Dept of AI, UMT, Lahore
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