

# Muhammad Mazhar

AI/Machine Learning Engineer

My expertise spans deep analytical capabilities, computer science modeling, and proficiency in Python, TensorFlow, PyTorch, and other data-driven tools. I've successfully applied these skills in impactful projects. I also hold both an MBA and a Bachelor's in Electronics Engineering degrees. I am eager to leverage data to drive business insights and innovation in my new career path.

## WORK EXPERIENCE

### ML Engineer | Omdena Inc. | May 2024 – Present

#### • Omdena-Innovation Challenges

##### ➤ [Soil Nutrient Prediction for Enhanced Fertilizer Recommendations](#)

EDA, Modeling for SOC, Boron, Zn, API Development. Tools used Python, Matplotlib, Seaborn, Plotly, Scikit-Learn, Feature Engine, ML Flow, FastAPI, Streamlit.

##### ➤ [3D Roof Reconstruction with CV for Solar Energy Optimization](#)

Contributed to 3D reconstruction model development, which includes PointNet Segmentation Model Implementation to identify roof tops. The PointNetSeg model processes the transformed features to perform point-wise segmentation. The model's final layer predicts the class of each point. Also wrote scripts for data cleaning.

#### • Omdena-Local Chapter Challenges

##### ➤ [Identifying Potential Areas for Urban Agriculture in Milan, Italy](#)

Contributed mainly in task 1 of the Omdena challenge, which includes data collection from Google Earth Engine (Satellite Imagery Processing), EDA and visualization, unsupervised modeling and web app development. Tools used Python, JavaScript, GDAL, Rasterio, GeoPandas. Spatial joining, Interpolation using kriging Interpolation Method

### WordPress Developer

2016-2024 | Freelance

### Assistant Manager Purchase

2012-2016 | MK Engineering Services, Pakistan

### Procurement Officer

2009-2012 | MK Engineering Services, Pakistan

### Electronics Engineer (R&D)

2003-2005 | MK Electronics, Pakistan

## EDUCATION

### MBA in Business Administration – May 2008

The University of Northampton, England

### Bachelor of Engineering (Electronics) – Jan 2003

NED University of Engineering and Technology, Karachi, Pakistan

Several courses on Python, Data Science, AI/ML/DL, Power BI, Computer Vision, FastAPI, Databases etc.

## CONTACT

- [Email](#), [LinkedIn](#), [GitHub](#), [Portfolio](#), [WhatsApp](#)
- **Phone:** +966 549800930
- [Open to Remote](#)
- [Authorized to work in USA](#)

## SKILLS

### Languages

Python, JavaScript – Novice

### Frameworks

TensorFlow, PyTorch, Scikit-Learn, OpenCV

### Data Visualization

PowerBI, Plotly

### Databases

MySQL, PostgreSQL, Redis, Firebase

### Scraping

Selenium, BeautifulSoup

### Web Frameworks

FastAPI, Flask

### Markup Language

HTML

### Design Language

CSS

## Other Projects

- **End-to-End Regression Model Pipeline**  
From Data Scraping to Deployment:  
Using PyPI Model Packaging, Fast API, Docker with CI/CD Integration
- **ANPR with EasyOCR**  
Automatically Number Plate Recognition (ANPR) from given images, webcam, and videos by using transfer learning from Pre-Trained Model SSD MobileNet v2 from TF Model Zoo.

For More Please Visit: [Portfolio](#)