

Muhammad Mazhar

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 in FastAPI, Streamlit App for PoC.

[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.

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, EDA and visualization, unsupervised modeling and web app development.

Electronics Engineer (R&D) | MK Electronics | 2003 - 2024

Key Responsibilities

- ◆ Design and Development of industrial control & automated systems by using micro-controllers, PLCs.
- ◆ Designing also includes PCB Layouts (using PC based CAD systems).
- ◆ Programming microcontrollers.
- ◆ Product testing and manufacturing.
- ◆ Estimation, preparation of technical documents.
- ◆ Service and Repair control systems.

Key Accomplishments

- ◆ Successfully designed, developed, Installed and Commissioned 'Load Shedding Module for a renowned client.
- ◆ Successfully designed and developed 'Programmable 4-20mA Indicator and Controller for a client.
- ◆ Other projects including 'Tower Light Monitoring Unit', 'Sequence Controllers'.

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

Udemy

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

CONTACT

- [Saudia Arabia \(Open to Remote\)](#)
- [+966 549800930](#)
- [Email](#)
- [LinkedIn](#)
- [GitHub](#)
- [Portfolio](#)
- [WhatsApp](#)

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.*

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