

Muhammad Mubashir

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github.com/mubashir-yaseen · ai-portfolio.vercel.app

AI Engineer — Data Scientist — Machine Learning, Deep Learning, Computer Vision, LLM & NLP Specialist

Professional Summary

AI engineer with a strong foundation in Electrical Engineering and hands-on expertise in ML, DL, NLP, and LLM systems. Skilled in designing and deploying production-grade AI pipelines using TensorFlow, PyTorch, LangChain, Rasa, and cloud platforms like Azure, AWS, and GCP. Proven experience in delivering end-to-end projects, mentoring teams, and solving real-world problems with intelligent systems. Actively contributing to open-source AI projects and preparing a technical blog on LLM workflows.

Technical Skills

Languages: Python, SQL, Java, C/C++, HTML, CSS, JavaScript

Frameworks & Libraries: TensorFlow, PyTorch, Keras, Sklearn, XGBoost, LightGBM, Pandas, NumPy

LLMs & NLP: OpenAI, HuggingFace, LangChain, Rasa, BERT, GPT, T5, LLaMA, spaCy, NLTK

Prompt Engineering: Zero-shot, Few-shot, Chain-of-Thought, RAG

MLOps/Experimentation: MLflow, DVC, W&B, TensorBoard, Sklearn Pipelines

Cloud & Deployment: Azure, AWS, GCP, Streamlit Cloud, Vercel, Render

Web, APIs & Databases: Flask, FastAPI, Django, REST, MySQL, PostgreSQL, MongoDB

Visualization: Matplotlib, Seaborn, Plotly, Tableau, Power BI

Tools: Git, GitHub, Jupyter Notebook, VS Code, Web Scraping

Soft Skills

- Leadership, Communication, Presentation, Cross-functional Collaboration & Team Mentoring
- Problem Solving, Analytical Thinking, Logical Reasoning, Debugging & Attention to Detail
- Adaptability to New Tools, Continuous Learning, Task Prioritization & Documentation

Professional Experience

Lecturer – NAVTTC AI Bootcamp

Mar 2025 – Jun 2025

Iqra University, PMYSDP Batch 02 – Govt. of Pakistan

- Delivered 300+ hours of instruction across 5-hour daily sessions in AI, ML, DL, NLP, and Cloud AI.
- Trained 20+ students in end-to-end ML pipelines, model deployment, and Azure workflows.
- Supervised 20+ individual capstone projects, each focused on real-world AI applications.
- Developed hands-on curriculum and mentored for freelancing opportunities.

Lab Instructor – Department of AI

2024 – Present

Iqra University – Faculty of Engineering Sciences & Technology

- Mentored students in ML/DL pipelines, NLP, CV, and neural network-based projects.
- Developed project-based lab manuals and assisted with AI program documentation.
- Led practical sessions using Python, Jupyter, and deep learning frameworks.
- Supervised 50+ AI student projects in ML, DL, NLP, CV, and ANN across multiple semesters.

IT Trainee Officer – Tech Division

2022 – 2023

Bank AL Habib Ltd.

- Developed internal Java/Python tools to streamline workflows.
- Supported backend systems and managed IT infrastructure.

Research Officer – Power and Research Lab, NUST

2019 – 2020

Department of Automation and Control

- Built predictive fault-detection models for transformers.
- Published performance metrics and proposed scalable solutions.

Education

Master of Science (MS) in Artificial Intelligence (In Progress)

NED University of Engineering & Technology, Karachi

Bachelor of Engineering (BE) in Electrical Engineering

National University of Sciences & Technology (NUST), Karachi

2016 – 2020

Highlighted Projects

- **Movie Recommendation System** – Content-based personalized recommender sys. | [GitHub](#) | [Live Demo](#)
- **Facial Emotion Detector** – CNN-based real-time emotion detection (87% accuracy) via webcam | [GitHub](#)
- **LLM-based SQL Query Tool** – LangChain + GPT to convert natural queries to SQL | [GitHub](#)
- **IoT Stress Detection System** – 92% accurate ML classifier using biosensors and ESP32 | [GitHub](#)
- **Rasa Chatbot for Campus Queries** – NLP-based intelligent assistant | [GitHub](#)
- **YOLOv5 License Plate Detector** – Trained CV model for smart parking automation | [GitHub](#)
- **Wireless Power Theft Detection (FYP)** – Detected anomalies in real-time with ESP8266 IoT setup

Capstone Projects

- **Heart Disease Classifier** – 85% accuracy on UCI dataset using logistic regression | [GitHub](#)
- **Diabetes Prediction System** – ML pipeline with data cleaning, EDA, and SVM classifier | [GitHub](#)
- **Breast Cancer Detection** – 96% accuracy using Random Forest and SVM ensemble | [GitHub](#)
- **SMS Spam Filter** – Text preprocessing + Naive Bayes on SMS dataset with 98% precision | [GitHub](#)
- **Karachi House Price Prediction** – Regression model & Decision Tree on real estate data | [GitHub](#)

Certifications

- **IBM Data Science Professional Certificate (9 courses)** – Python, SQL, ML, Capstone
- **Machine Learning – Stanford (Andrew Ng)** – End-to-end ML pipeline mastery
- **Deep Learning Specialization – DeepLearning.AI (5 courses)** – ANN, CNNs, RNNs, optimization
- **Azure AI Fundamentals – Microsoft** – Azure ML tools & Cognitive Services
- **Java Programming & Software Engineering – Duke University** – OOP, debugging, software design

Leadership & Volunteering

- **Technical Lead** – Led automation and electrical subsystem of Team PNEC-NUST, Shell Eco Marathon
- **Event Organizer** – **IEEE NUST-PNEC** – Coordinated 200+ student participation and tech competitions
- **Host/Compere** – **Academic Events** – Conducted seminars, bootcamps, and open house presentations
- **Volunteer** – **Dar-ul-Sakun, Sham-e-Ilm, Idara-al-Khair** – Supported education and healthcare

Contact

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- 🌐 github.com/mubashir-yaseen (*More AI projects*)
- 🌐 ai-portfolio.vercel.app