

MAI KASSEM

Machine learning Engineer & Data Scientist

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Summary

Computer Science graduate passionate about turning data into real-world solutions. I bring expertise in data analysis, visualization, and feature engineering, along with hands-on experience building and deploying ML models using TensorFlow, Keras, Scikit-learn, Flask, and Streamlit. Proficient in Python, C++, and SQL, with a strong focus on creating accurate, optimized, and impactful AI systems.

Education

University Of The West of England 2024
Bachelor of Science in Computer Science | Artificial Intelligence Pathway

Skills

- Programming Languages :** C++, Python, SQL
- Machine Learning :** Scikit-learn, TensorFlow, Supervised & Unsupervised Learning, Neural Networks, OpenCV ,Natural language processing (NLP), Ensemble Methods, Model Evaluation techniques, Hyperparameter Tuning, Feature Engineering
- Data Analysis & Visualization :** Pandas, NumPy, Seaborn, Matplotlib, Exploratory Data Analysis, Data cleaning & Wrangling
- Tools :** Git, Docker, Jupyter Notebooks, FastAPI, Flask, Streamlit
- Soft Skills :** Problem-Solving, Time Management & Adaptability, Self-Learning & Continuous Improvement

Project Highlights

Premier League Match Outcome Predictor
Predicted match outcomes using historical data with DNN, SVM, and Random Forest models. Achieved high accuracy through preprocessing, feature engineering, and model comparison.
Tech Stack: Python, Pandas, NumPy, Scikit-learn, Tensor- Flow, Keras

Engine Anomaly Detection & RUL Prediction
Built GRU-based model predicting engine remaining useful life from sensor data (MAE: 17.84, R²: 0.83). Deployed via Flask for real-time input and predictions.
Tech Stack: Python, TensorFlow, Keras, NumPy, Scikit-learn, Flask

Traffic Violation Detection (In Progress)
Developing YOLOv8 system to detect wrong-way driving integrating Flask/FastAPI.
Tech Stack: Python, OpenCV, YOLOv8, Flask, FastAPI

Certifications

Generative AI Fundamentals
Databricks
Oct 2024

Deep Learning Specialization
DeepLearning.AI, Coursera
In Progress

Experience

* Elevvo - Machine Learning Intern

- August 2025 - September 2025
- Built and optimised complete ML pipelines from data cleaning to model validation.
 - Applied regression and classification algorithms, including Random Forest and XGBoost to real-world business datasets.
 - Contributed to scalable solutions for forecasting, recommendation, and recognition systems.

* Machine Learning, Data Science, Deep Learning

* EduLumos - Data Science Intern

- October 2025 - present
- Conducting data cleaning, analysis, and visualisation
 - Building machine learning models
 - Performing **Exploratory Data Analysis (EDA)**
 - Gaining hands-on experience in NLP, feature engineering, and model evaluation for text-based data.

* Machine Learning, Data Science, Data Analysis

* ArchTechnologies - Generative AI Intern

- October 2025 - present
- Building a Streamlit interface for a locally installed LLM (Ollama) enabling smooth front-end and back-end communication.
 - Implementing conversation history and reset functionality to enhance user experience.

* Generative AI, Machine Learning

Languages

| | |
|---------|--------|
| English | ***** |
| Arabic | ***** |
| French | *** ** |