

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, CI/CD, 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, TensorFlow, 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

* MADA Insurance - Data Analyst intern

August 2021- September 2021
Developed and maintained components of the company's web platform using python
Performed data analysis creating insights to support operational decision-making
Applied data processing, cleaning and visualisation techniques to evaluate and present findings

* Web development, Python development , Data Analysis

* Bristol Airport - Airport Hostess

June 2022 - October 2022
Delivered customer focused solutions in a high-traffic environment, resolving operational issues with speed and accuracy
Maintained accurate records and ensured compliance with security and operational protocols

* Data Management, Customer Service

* Sparks Bristol - Production assistant

June 2025 - June 2025
Coordinated with technical teams to ensure smooth event operations and audience experience
Collected and organized survey data from event vendors to identify challenges and improvement areas.

* Survey Data Collection & Analysis, Event Operations

Languages

English	*****
Arabic	*****
French	*****