

HUSSAM ABDUL RAHIM SOOMRO

Machine Learning Engineer

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EDUCATION

Bachelors of Science in Computer Science

Liverpool John Moores University, Qatar | Sep 2024 - Sep 2028

Diploma in Computer Information Technology

Govt. Monotechnic Institute, Pakistan | Aug 2021 - Aug 2024

TECHNICAL SKILLS

Programming: Python, JavaScript, SQL

ML & Data: Pandas, NumPy, scikit-learn, Matplotlib

Web: React, Node.js, Chart.js, Streamlit

Tools: Git, Power BI

Databases: MySQL

PROJECTS

AeroSafe: Aircraft Engine Predictive Maintenance (Python, ML, Git)

- Built an end-to-end predictive maintenance system using the NASA C-MAPSS dataset (160,000+ flight cycles)
- Engineered features from multivariate time-series sensor data to model engine degradation patterns
- Trained and evaluated machine learning models to predict remaining useful life (RUL) and failure risk
- Structured the pipeline for scalability and real-world aviation applications
- Evaluated model performance using RMSE / MAE

Movie Recommendation System (Python, Streamlit, TMDb API)

- Built a content-based recommendation engine using TF-IDF vectorization and cosine similarity techniques
- Integrated TMDb API for real-time movie data, posters, and metadata enrichment
- Developed an interactive Streamlit interface for fast, user-driven recommendations
- Optimized recommendation logic for relevance and response speed

Renewable Energy Forecast Dashboard (Python, ML, Chart.js)

- Developed an interactive dashboard to forecast renewable energy demand using machine learning models on time-series data
- Built data preprocessing and feature engineering pipelines to improve prediction reliability
- Integrated ML outputs with a dynamic Chart.js frontend for real-time visualization and trend analysis
- Designed for decision support in energy planning scenarios

EXPERIENCE

AI Engineer | Black Rose Trading Co WLL | June 2026 - PRESENT

- Developed AI-powered search, recommendation, and predictive features for a high-traffic e-commerce platform.
- Integrated intelligent backend pipelines to improve application performance and product discovery.
- Collaborated with cross-functional teams to deploy scalable AI solutions into production.

Web Developer | Freelance | Jan 2020 - Aug 2022

- Developed responsive full-stack web applications using JavaScript and MySQL
- Built and deployed full-stack applications with backend integration and database management
- Integrated backend logic and database systems for dynamic content handling
- Delivered production-ready websites across multiple devices

CERTIFICATIONS

Machine Learning Professional Certificate | IBM, 2025

Developing LLM Applications with LangChain | DataCamp, 2025

Machine Learning for All | University of London, 2025

Diploma in Microsoft Power BI | Alison, 2025