

Olugbenga Adegoroye

AI & Machine Learning Engineer | Predictive Maintenance Specialist

- AAS in Artificial Intelligence – Focus on Deep Learning, MLOps, and Industrial AI
- Passionate about converting sensor data into significant cost savings
- Proven track record leading end-to-end AI systems from data to deployment

KEY STRENGTHS

LSTM/GRU Modeling

Explainable AI (SHAP)

Production-Ready (Streamlit)

Capstone Highlight — Part 1

Project Overview

PROJECT TITLE

AI-Powered Predictive Maintenance System

DATASET

NASA Turbofan Engine Degradation (CMAPSS FD001)

ROLE

Content Lead: Testing, Validation & Conclusion

KEY FEATURES

- Real-time Streamlit dashboard with alerts
- SHAP integration for model explainability

Key Achievements

RANDOM FOREST ACCURACY

98.7% failure prediction

LSTM PERFORMANCE

14.18 cycles MAE on RUL

EXCEEDED TARGETS

- Accuracy > 85% achieved
- Error < 20 cycles achieved
- Latency < 100 ms achieved

Capstone Highlight — Part 2

Technical Stack & Implementation Details

Deep Learning

- TensorFlow/Keras
- LSTM & GRU networks
- Optuna optimization

Classical ML

- Random Forest
- RFE Feature Engineering
- GridSearchCV

MLOps

- Docker Containerization
- Model Versioning
- API Design

Data Processing

- Pandas & NumPy
- Time-series windowing
- Robust Scaling

Visualization & Tools

Matplotlib, Seaborn, SHAP for explainability.
Developed using Google Colab (GPU accelerated), Git for version control, and deployed via Streamlit.

Result: Production-ready prototype deployed on GitHub

Applications & Business Impact

"From Jupyter notebook to factory floor"

INDUSTRIES I SERVE

Manufacturing & Heavy Industry

Aviation & Aerospace

Energy (Oil & Gas)

Automotive Fleet

BUSINESS OUTCOMES DELIVERED

40%+

Reduction in unplanned
downtime

25%+

Maintenance cost savings

Weeks

Early failure detection
advance warning

100%

Auditable & Transparent
AI decisions

Let's Connect

CONTACT DETAILS

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LIVE PROJECT & CODE

github.com/wadegoroye/Predictive-Maintenance

ADDITIONAL EXPERTISE

- TensorFlow Developer Certificate (In Progress)
- AWS Certified Cloud Practitioner
- Python, Docker, FastAPI, PostgreSQL

[Open for Full-time / Internship / Contract](#)

"I don't just train models — I deploy solutions that save millions."