

ABHI FALDU

[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

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ABOUT ME

AI student with hands-on experience building industrial AI systems, from anomaly detection in machine sensor data through real-time IIoT monitoring to production-ready MLOps pipelines. I am skilled in Python, PyTorch and Scikit-learn, and in deploying ML models with FastAPI, Docker and MLflow. Ready to contribute practical solutions in an AI or data science environment from day one.

SKILLS

ML & Modelling:	Scikit-learn · XGBoost · TensorFlow · PyTorch · NLP · Predictive Modelling
MLOps & Deployment:	MLflow · Docker · FastAPI · CI/CD (GitHub) · Evidently · MQTT
Data & Visualisation:	Pandas · NumPy · Power BI · Grafana · Matplotlib · Jupyter Notebook
Programming & Tools:	Python · SQL · GitHub · Streamlit · InfluxDB
Soft Skills:	Analytical Thinking · Problem-Solving · Teamwork · Iterative Development · Initiative

PROJECTS

MLOps Pipeline for Predictive Maintenance

06/2026 – Present

github.com/abhi-faldu/anomaly-detection-MLOps

- Production-grade MLOps workflow for a machine-failure classifier (AI4I 2020, approx. 10,000 sensor records): training, experiment tracking and model registry with MLflow, including automatic champion promotion.
- Raised PR-AUC with XGBoost from 0.38 (baseline) to **0.83**; CI pipeline (GitHub) enforces PR-AUC ≥ 0.75 before every promotion.
- Deployed via FastAPI, data-drift monitoring with Evidently, containerized with Docker Compose; **38 tests** (~90% coverage).

IIoT Simulator for Smart-Factory Monitoring

05/2026

github.com/abhi-faldu/iiot-smart-factory-sim

- Industry 4.0 simulation: 3 robot arms stream sensor data (temperature, vibration, motor current) over MQTT every second, real-time anomaly detection via sliding-window Z-score.
- Storage in InfluxDB, visualization via Grafana and a custom web dashboard with 6 services via Docker Compose.

Predictive Maintenance System for Industrial Robotic Bearings

03/2026 – 05/2026

github.com/abhi-faldu/robotic-bearing-pdm

- LSTM autoencoder (PyTorch) for anomaly detection in bearing vibration data (NASA IMS Bearing dataset): **F1-score 0.94** for early detection of bearing failures.
- FastAPI backend and Streamlit dashboard for real-time visualization of anomaly scores and maintenance recommendations, which are containerized with Docker Compose (3 services).

ML-Based Crypto Trading System

12/2025 – 03/2026

github.com/abhi-faldu/ml-bot

- Modular end-to-end pipeline for algorithmic BTC/USDT trading: approx. 17,500 hourly data points, 16 engineered features (RSI, MACD, ATR).
- Walk-forward cross-validation to prevent data leakage, dynamic risk management with ATR-based stop-loss rules and drawdown protection.
- Deployed on Binance Testnet, out-of-sample accuracy of 50% documented: public market features with no significant predictive power.

EDUCATION

B.Sc. Applied Artificial Intelligence

10/2023 – Present

Technische Hochschule Rosenheim, Germany

Currently in 6th semester · Focus areas: Machine Learning · Deep Learning · Neural Networks · Data Science · Database Systems · Software Engineering · IT Security

B.Tech Information Technology (partial)

01/2021 – 07/2022

Atmiya Institute of Technology & Science, Rajkot, India

Completed two semesters of foundational engineering studies.

EXPERIENCE

Sales Associate | Lidl GmbH & Co. KG | Prien am Chiemsee

Present

- Reliable work in a high-volume retail environment while studying full-time, demonstrating strong time management and resilience.
- Building professional German-language skills and intercultural teamwork in a German-speaking work environment.

Junior Data Analyst | MR Infoware | Rajkot, India

04/2023 – 10/2023

- Analyzed operational and business data to support data-driven decision-making through end-to-end EDA and data-preprocessing pipelines.
- Built Power BI dashboards to visualize KPIs and performance metrics for cross-functional stakeholders.
- Contributed to ML model evaluation and translated business requirements into actionable analytical insights.

LANGUAGES

English: Fluent (C1)

German: Intermediate (B1/B2)

Hindi / Gujarati: Native

INTERESTS

Gaming | Hiking | Vibe Coding