Mohamed Badry

Data Scientist & Macine Learning Enginer & Data Analyst

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PROFESSIONAL SUMMARY

AWS Machine Learning Engineer Trainee with 2 years of experience, adept at building and deploying scalable ML solutions that consistently achieve 90%+ model accuracy. Proven expertise in developing end-to-end ML pipelines on AWS, encompassing data ingestion, feature engineering, model training, evaluation, and automated deployment with MLOps for continuous improvement and monitoring. Utilizes Python, SQL, Scikit-learn, and TensorFlow to analyze large datasets and deliver actionable, data-driven insights. Committed to automating and scaling ML systems to drive significant business impact.

WORK EXPERIENCE

AWS Machine Learning Engineer Trainee

National Telecommunication Institute (NTI) - Cairo, Egypt   *Nov 2024 - May 2024*

Internship

- Designed, automated, and deployed end-to-end ML pipelines on AWS SageMaker, delivering 95%+ accuracy with scalable production workflows.
- Optimized model performance by 20% through systematic hyperparameter optimization, feature selection, and regularization strategies.
- Built interactive Power BI dashboards for real-time monitoring of model accuracy, drift, and operational metrics.

Lead, Data Science & Machine Learning Team

Cisco Networking Student Club - Cairo, Egypt   *Sep 2023 - Apr 2024*

Part-time

- Coached and guided 25+ students in Python, EDA, and ML workflows, contributing to higher-quality, production-ready projects.
- Directed a project team to achieve a 30% accuracy improvement over baseline solutions by applying data-driven optimization strategies.
- Established and delivered 4+ AI training initiatives emphasizing deployment pipelines and visualization best practices.

Machine Learning Intern

Instant Software Solutions - Cairo, Egypt   *Jul 2023 - Jul 2024*

Internship

- Conducted comprehensive EDA and feature engineering on datasets exceeding 100K+ records, uncovering patterns and improving model input quality.
- Designed and trained supervised learning models achieving up to 94% accuracy through effective feature selection and algorithm tuning.
- Automated data preprocessing pipelines, reducing manual effort by 40% and improving workflow scalability and reproducibility.

EDUCATION

BSc (Bachelor of Science) in Data Science

Arab Open University - cairo,egypt   *Sep 2021 - Jun 2025*

GPA: 3.03

SKILLS

Technical Skills

Python, R, MATLAB, C++, Flask, MySQL, SQL Server, Firebase, DynamoDB, SQLite, AWS, GitHub, Git, Machine Learning, Deep Learning, TensorFlow, PyTorch, NLP, Scikit-learn, NumPy, Pandas, Computer Vision, Data Analysis, Power BI, Tableau, Matplotlib, Seaborn, Plotly.
Feature Engineering, Exploratory Data Analysis (EDA), Model Optimization, Cross-Validation, Statistical Inference

Soft Skills

Excel, Financial Analysis, Forecasting, Financial Reporting, Team Leadership, Project Planning, Public Speaking, Written Communication, Presentation Skills, Negotiation, Time Management, Critical Thinking, Problem Solving, Teamwork

PROJECTS

PathCoder – Career Path Recommender Sep 2024- May 2025   View Project

•Developed an AI-powered career guidance web app enabling developers to explore career paths, predict suitable jobs, and discover key skills.
•Trained a Random Forest model on 200K+ profiles, achieving 92% accuracy with SHAP explainability.
•Built a full-stack app with Flask, Streamlit, Firebase Auth, and MySQL.
•Implemented MLflow to boost workflow reproducibility by 40% and added NLP chatbot and TensorFlow-based emotion detection to enhance user experience.

Technologies: Python, Scikit-learn, TensorFlow, Flask, Streamlit, MySQL, Firebase, MLflow

Predictive_Maintenance_NASA_turbofan   View Project

•Developed a Predictive Maintenance solution using the NASA Turbofan (CMAPSS – FD001) dataset to predict engine failures and Remaining Useful Life (RUL). Engineered features from sensor data and trained ML models, achieving high-accuracy failure predictions to enable proactive maintenance.
•Automated preprocessing and modeling pipelines, improving workflow efficiency and reproducibility.

Technologies: Time-series analysis, feature engineering, regression modeling, predictive maintenance

Flight Price Prediction   View Project

•Developed a regression-based predictive system to forecast flight prices and analyze demand patterns using historical booking data. Engineered features, optimized models, and uncovered key insights to support data-driven pricing strategies and revenue optimization.

Technologies: Python, Pandas, Seaborn, Scikit-learn, XGBoost

CERTIFICATIONS

AI & Data Science – AWS Machine Learning Engineer Training   May 2025

Ministry of Communications and Information Technology

LANGUAGES

Arabic (Native), English (Advanced)