MESO FRANCIS

Machine Learning Engineer & Data Scientist

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PROFESSIONAL SUMMARY

Machine Learning Engineer and Data Scientist with 2+ years of experience in end-to-end ML engineering, data automation, and scalable cloud-native systems. Delivered predictive models with 92%+ accuracy and reduced manual data processing by 75%. Experienced in Python, AWS, React.js, and building production-ready ML pipelines.

TECHNICAL SKILLS

Programming Languages

• Python, JavaScript (ES6+), SOL, R

Machine Learning & Statistics

- Pandas, NumPy, Scikit-learn, Statsmodels
- XGBoost, LightGBM, **Unsupervised Anomaly** Detection
- EconML, Causal Inference, Comparative Model Evaluation

Cloud & DevOps

- AWS (IAM, S3, Lambda, API Gateway, RDS, CloudWatch)
- Docker, GitHub Actions, AWS SAM, CloudFormation
- Infrastructure as Code (IaC), Serverless Architecture

Backend & Data Engineering

- FastAPI, boto3, Real-Time **Data Pipelines**
- API Design & Implementation, Event-Driven Architecture

Databases & Visualization

- PostgreSQL (AWS RDS), Time-Series Data Modeling
- Streamlit, Plotly Dash, Interactive Dashboards

Frontend & Tools

- React.js, HTML5 & CSS3, Tailwind CSS
- Git, Version Control, Automated Testing & CI/CD

PROFESSIONAL EXPERIENCE

Machine Learning Engineer

Freelance | Aug 2024 - Present

Remote

- Developed AI tools based on client requirements, building solutions from React dashboards to Python-based ML systems
- Automated spreadsheet processes into one-click reports using React and Python, saving clients significant time and eliminating manual workflows
- Built a churn detection model with 92% accuracy for identifying at-risk customers, including real-time prediction systems
- Created dashboards with React visualizations for accessible data insights
- Developed an automation bot that reduced data preprocessing time by 75%, increasing client productivity
- Open-sourced a prediction engine for community use

Data Science Intern

Accenture | Jun 2024 - Nov 2024

Remote

- Built Python and SQL systems for customer churn prediction and sentiment analysis using classification algorithms
- Optimized ETL workflows on AWS and Azure, improving data processing speed by 30%
- Designed Tableau and Power BI dashboards with counterfactual explanations for model decisions
- Collaborated with engineers and consultants to implement technical solutions for client strategies in multiple projects

EDUCATION

Bachelor of Economics & Statistics

University of Nairobi | 2020 - 2024

Cum Laude | Relevant Coursework: Statistical Analysis, Stochastic, linear Modeling Econometrics, Data Science

CERTIFICATIONS

- AWS Machine Learning Fundamentals Udacity (2025)
- Machine Learning with Python: Linear Models to Deep Learning MITx (EDX) (2024)
- Al Programming with Python Udacity (2024)
- Business Analytics Udacity (2023)

KEY PROJECTS

Macro Economic Engine

Automated cloud native platform that ingests real-time economic data streams, uses unsupervised machine learning to detect statistically significant anomalies, and provides causal inference models for economic forecasting.

Technologies: Python, Machine Learning, Cloud Computing, Real-time Data, Anomaly Detection

Customer Churn Prediction

Machine learning pipeline for predicting customer churn in telecommunications with 92% accuracy. Includes data preprocessing, feature engineering, model training, and deployment with performance analysis.

Technologies: Python, Machine Learning, Data Analysis, Feature Engineering, Model Deployment

Data Automation Bot

Python-based bot that automates data preprocessing and reporting, integrating with APIs and SQL databases. Reduced manual effort by 75% and increased client productivity.

Technologies: Python, APIs, SQL, Automation, Database Management

Sentiment Analysis Suite

Machine learning project implementing three linear classification algorithms for sentiment analysis of text reviews. Compared performance of Perceptron, Average Perceptron, and Pegasos algorithms.

Technologies: Python, NLP, Sentiment Analysis, Perceptron, Linear Classification, Pegasos

LEADERSHIP & COMMUNITY

- Open source contributor sharing prediction engines and tools with the community
- Focused on knowledge sharing and collaboration in Al
- Staying updated with latest ML/Al research and technologies
- Mentoring aspiring data scientists and contributing to open-source projects