Sharon Muiruri

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EDUCATION

Massachusetts Institute of Technology   **2022 - 2023**
Data Science and Machine Learning

Jomo Kenyatta University of Agriculture and Technology   **2018 - 2022**
Bachelor of Business Information Technology

TECHNICAL SKILLS

Programming: Python, SQL
AI & Machine Learning: Regression, Classification, Clustering, NLP, Computer Vision, Neural Networks, LLMs
Tools & Frameworks: Scikit-learn, TensorFlow, PyTorch, Keras, Langchain, FastAPI
Data Visualization: Excel**,** Tableau, Power BI, Matplotlib, Seaborn, Plotly
DevOps & Cloud: Docker, Kubernetes, Microsoft Azure
Soft Skills: Analytical thinking, Attention to detail, Problem solving, Report writing, Team collaboration

EXPERIENCE

Machine Learning Contributor   **Oct 2024 - Present**
Omdena
- Collaborate with a diverse global community of researchers to address real-world challenges using machine learning and AI techniques.
- Actively participate in open-source projects aimed at solving complex problems spanning various domains, such as finance, healthcare, and environmental conservation.
- Researched and developed appropriate ML algorithms and AI applications according to user requirements.

Data Science and MLOps Intern   **Sep 2022 - Dec 2022**
Flapmax AI Institute
- Conducted data cleaning, exploratory data analysis, and feature engineering to prepare datasets for machine learning models.
- Developed and deployed machine learning applications using FastAPI, Docker, and Kubernetes, contributing to end-to-end MLOps workflows in production environments.
- Built a Car Damage Detection model using Mask-RCNN, applying deep learning techniques for object detection and enhancing model performance through iterative training and evaluation.
- Deployed and customized the Commerce Marketplace SaaS Accelerator on Microsoft Azure, improving scalability and cloud-native functionality for enterprise-level commerce solutions by 15%.
- Collaborated with cross-functional teams to translate business needs into data-driven solutions, created dashboards and reports, and participated in code reviews and model validation.

PROJECTS

Stock Market Price Prediction | *Python, yfinance, Pandas, Scikit-learn,TensorFlow, Keras*
- Collected historical stock data using the yfinance API and performed exploratory data analysis to identify trends and volatility.
- Engineered lag features to capture temporal dependencies in stock prices and improve predictive performance.
- Built and evaluated ARIMA, SARIMA, and LSTM models to predict stock market prices.

Credit Card Default Prediction | *Python, Scikit-learn, XGBoost, SMOTE, Matplotlib, Seaborn*
- Developed a model to predict the likelihood of customers defaulting on credit card payments.
- Preprocessed data and applied SMOTE to balance classes and ensure robust model performance.
- Built and evaluated Logistic Regression, Decision Trees, Random Forest, XGBoost, and Gradient Boosting models.

Customer Review Sentiment Analysis | *Python, BeautifulSoup, NLTK, Scikit-learn*
- Scraped customer reviews from Skytrax and used NLP techniques to analyze sentiment and extract key themes.
- Conducted text preprocessing and sentiment analysis to understand customer opinions and service feedback.
- Visualized insights through word clouds and sentiment plots to support business decision-making.

CERTIFICATIONS

Applied Data Science Lab- WorldQuant University