Taylor Nanjala Wanyama

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github.com/taylorwanyama

Professional Summary

A highly motivated and solutions-oriented Full Stack Data Scientist and AI/ML Engineer with a strong background in Financial Engineering. I specialize in designing and implementing robust machine learning and deep learning models to deliver data-driven, research-based solutions that optimize performance and mitigate risk.

Education

JKUAT, Bachelor of Science in Financial Engineering   Sep 2021 – May 2025
- Grade: Second Class Upper Division
- **Coursework**: Financial Modeling, Portfolio Management, Risk Analytics, Statistics, Insurance, Python, SQL, R

Experience

Junior Data Analyst, Onja Uone Ltd   Apr 2024 – March 2025
- Streamlined data collection and reporting workflows, reducing processing time by 20% and improving operational efficiency.
- Automated Python data cleaning workflows, reducing reporting lag by 40%.
- Built Tableau dashboards used by 5+ executives, improving KPI visibility and self-service analytics.
- Led A/B tests that reduced defect reports by 12% and increased user retention by 8%.
- Conducted market research and trend analysis, identifying 10+ actionable insights that informed key strategic decisions.
- Collaborated with 2+ cross-functional teams to gather requirements, define project scope, and ensure alignment with business goals.
- Delivered 15+ reports and presentations, communicating insights and recommendations that influenced decision-making.

Projects

PCOS Diagnostic Agent   github.com/taylorwanyama
- Trained a Random Forest classifier on 600+ medical records, achieving 91 % accuracy and 0.95 ROC-AUC, improving the early detection accuracy of PCOS over baseline models.
- Developed an AI agent with LangGraph and LangChain and a Groq LLM, enabling real-time diagnostic predictions, explanations, and treatment recommendations for clinicians.
- Implemented a logging system using SQLite, tracking predictions and explanations for continuous monitoring.
- Published the entire solution (pipeline, interface, documentation) on GitHub to ensure reproducibility and transparency.

E-commerce Product Recommendation System (Kilimall Beauty & Health)   github.com/taylorwanyama
- Built an end-to-end recommendation engine for 700+ beauty & health products, increasing product discovery efficiency by 30% in offline tests.
- Engineered a scraping pipeline (Selenium, BeautifulSoup, requests) that automated data collection from dynamic Kilimall pages, eliminating manual data entry.
- Integrated TF-IDF vectorization and cosine similarity to provide relevant recommendations with 80% precision, improving the browsing experience.

Digital Sales Dashboard (Tableau)   github.com/taylorwanyama
- Processed 1,000+ transaction records, reducing cleaning time by 70% with automated preprocessing in Python.
- Built a real-time Tableau dashboard for sales and customer sentiment data, used by managers to track revenue

by region, product performance, and churn signals.

- Identified 5+ underperforming products and presented insights that influenced product portfolio adjustments.
- Published the interactive dashboard on Tableau Public, allowing easy stakeholder access and self-service analysis.

Certifications

Machine Learning with Python – IBM (2025)

Deep Learning Specialization – Cognitive.AI (2025)

Intermediate Machine Learning – Kaggle (2024)

Data Analysis with Python – IBM (2024)

Python for Data Science – IBM (2024)

Creating Compelling Reports - Cisco Networking Academy (2024)

Python Essentials 1 & 2 – Cisco Networking Academy (2023)

Technical Skills

Skills: Time Series Forecasting, Predictive Modeling, Exploratory Data Analysis (EDA), Model Development & Deployment, Data Cleaning, Feature Engineering, ETL Pipelines, Hyperparameter Tuning, Web Scraping, Data Visualization, AI Development, Data Warehousing, RAG

Tools & Technologies

Languages: Python, R, SQL, JavaScript
Tools & Environments: Jupyter Notebook, RStudio, VS Code, Git, GitHub, LaTeX, Microsoft SQL Server, MySQL, MySQL Workbench
Data Science & Visualization: Pandas, NumPy, Matplotlib, Seaborn, Plotly, Dash, Excel, Tableau, Tidyverse, ggplot2
Machine Learning & AI: Scikit-learn, TensorFlow, Keras, LangGraph, LangChain, Deep Learning, Natural Language Processing (NLP)

Key Areas of Interest

Financial Modeling and Valuation, Risk Management, Machine Learning in Healthcare and Finance, Time Series Forecasting, AI-Driven Systems, and Business development.