RUTH ONDIERE

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

PROFESSIONAL SUMMARY

Data scientist and machine learning engineer with 2+ years of experience in developing end-to-end AI solutions. Specialized in Python, predictive modeling, and IoT data systems. Proven track record of building machine learning models that drive 30%+ efficiency improvements. Seeking remote data science roles to leverage technical expertise in scalable AI solutions.

TECHNICAL SKILLS

- Programming: Python, SQL, JavaScript
- Machine Learning: Scikit-learn, TensorFlow, Predictive Modeling, NLP, Computer Vision, Deep Learning
- Data Analysis & Engineering: Pandas, NumPy, Data Visualization, Statistical Analysis, Data Wrangling, ETL Processes
- Cloud & Tools: AWS (S3, EC2), Git, Docker, Jupyter, REST APIs
- Methodologies: Feature Engineering, Model Deployment, A/B Testing, Agile Development

PROFESSIONAL EXPERIENCE

IoT Engineer Intern & Technical Customer Associate | Hello Tractor, Nairobi, Kenya
September 2023 - January 2025
- Developed IoT data processing systems analyzing sensor data from 500+ connected devices, generating actionable insights for agricultural optimization
- Engineered automated monitoring tools that reduced system issue identification time by 30%, improving operational efficiency
- Implemented data-driven product enhancements through cross-functional collaboration with engineering and product teams
- Created and delivered training programs for 100+ enterprise clients, increasing product adoption by 25% and customer satisfaction scores by 15%
- Applied advanced data analysis techniques to identify usage patterns, informing strategic business decisions and feature development

PROJECTS

AI-Powered Course Advisor Chatbot (RAG System) | Hackathon Project (Winning Team)
May 2025
- Engineered Retrieval-Augmented Generation system using NLP techniques and OpenAI API, implementing semantic search capabilities
- Designed and implemented vector database architecture with similarity search algorithms, improving information retrieval accuracy by 40%
- Developed full-stack AI solution that won first place in competitive hackathon against 50+ teams
- Demonstrated practical application of generative AI for educational technology, reducing course selection time for students

Airline Fare Prediction Engine | Personal Project
June 2025 - August 2025
- Built end-to-end machine learning pipeline processing 50,000+ historical flight records using Python and Scikit-learn
- Implemented regression algorithms (Random Forest, XGBoost) and time-series analysis to forecast ticket prices with 85% accuracy
- Improved prediction model performance by 22% through feature engineering and hyperparameter optimization
- Created interactive data visualization dashboards using Plotly, effectively communicating insights to stakeholders

EduRoutes: Transportation Optimization Platform | Academic Project
April 2025 - Present
- Developing data-driven platform using geospatial data and machine learning to optimize school transportation routes
- Applying clustering algorithms and route optimization techniques to reduce transportation costs by 35% for Nairobi schools
- Supporting UN Sustainable Development Goals (Quality Education, Sustainable Cities) through technology innovation
- Demonstrating ability to solve real-world urban planning challenges with data science methodologies

EDUCATION

BSc, Electronics and Computer Engineering
Jomo Kenyatta University of Agriculture and Technology | September 2016 - December 2022

KIEP-SKIES AI Program (World Bank-Sponsored)
Completed May 2025 | Intensive Program, Data Science & Artificial Intelligence

CERTIFICATIONS

- NVIDIA Deep Learning Institute - Deep Learning Fundamentals
- AWS Certified Cloud Practitioner
- DataCamp Data Scientist with Python Track

LANGUAGES

- English (Fluent)
- Swahili (Fluent)