Elizabeth Mwania

Data Scientist | Software Developer

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Professional Summary

Results-driven professional with a solid foundation in Data Science and Machine Learning, currently pursuing a Master's in Mathematical Sciences at AIMS Cameroon. My background in Software Development (BSc in Mathematics and Computer Science) and Cybersecurity (Cybersafe Foundation) equips me with a diverse a unique blend of technical expertise and innovative problem-solving to every task. My passion for innovation fuels my commitment to continuous learning and skill enhancement. Additionally, I excel in communication, presentation, and collaboration, ensuring seamless teamwork and impactful results.

Areas of Expertise

Technical Skills

- Data analysis & management: Ms Excel, SQL, Python, R.
- Credit scoring and scorecard development.
- Risk and credit analytics.
- ML & statistical modelling
- Software development.
- Cybersecurity & secure coding.
- Database management.

Soft Skills

- Strong communication & negotiation skills.
- Documentation and reporting skills.
- Excellent problem-solving skills.
- Time management.
- Collaboration and teamwork.
- Flexibility and adaptability.
- Critical thinking and analytical skills.
- Great prioritization skills.

Experience

Software Developer   **November 2021-August 2024**
Kenya Revenue Authority
- Collaborated with a team of customs developers and analysts to centralize customs processes and improve system efficiency.
- Integrated a Gen AI-powered Tax Calculator, optimized APIs for the Customs Auction platform, and managed ICT systems with a team of data scientist.
- Improved tax calculations efficiency and increased management of the customs systems by 20%.

System Analyst   **June 2021 – October 2021**
Jirani Smart Microfinance Ltd., Kenya
- Led a team of 5 analysts to monitor financial systems and processes, improving efficiency and enabling informed decision-making.
- Identified financial system issues, recommended solutions, and integrated the ICT network to align with company standards. Monitored database performance to prevent downtime.
- Improved system efficiency, resolved financial issues, and ensured 100% database uptime.

Development of Universal Health Coverage (UHC) System   **April 2019 – September 2019**
- Led the development of a Universal Health Coverage (UHC) system for Kisumu County Government, Kenya, to improve healthcare delivery and system performance.
- Technologies: Frontend/Backend Development, DHIS Integration.

Projects

Credit score application approval app
- This app predicts if an applicant will be approved for a credit card or not. Each time there is a hard enquiry your credit score is affected negatively. It predicts the probability of being approved without affecting your credit score and it can be used by applicant who wants to find out if they will be approved for a credit card without affecting their credit score
- Methods: Exploratory data analysis, Bivariate analysis, Multivarate correlation, Gradient Boosting for prediction, S3 bucket model hosting, Streamlit for deployment

Diabetes prediction using Kaggle dataset
- Collaborated with fellow colleagues at AIMs Cameroon to uncover trends to the progression of diabetes from under various factors.
- Technologies: Python, Pandas, numpy, Scikit-learn, plt

Predicting student's performance
- Developed a predictive model to identify factors that affect students performance
- Technologies: R

Implemention of secure API using token-based authentication and Keycloak
- Led a team of 6 Cybergirls to build a secure RESTful API to achieve authentication, authorization, and data protection.
- Technologies: Keycloak, Flask, Kubernetes, Docker, CI/CD with GitHub Actions

Forex Trading on Malagasy and Sudanese Market Analysis
- Conducted market analysis to understand exchange rate to predict trading trends in the Malagasy and Sudanese markets, supporting strategic decision-making for stakeholders at Ubuntu Stock Exchange, Sakode, Togo.
- Technologies: NumPy, Scikit-learn/TensorFlow, PowerPoint

Education

- **Master of Science in Mathematical Sciences (Ongoing)**
  Africa Institute of Mathematical Sciences (AIMS) Cameroon | September 2024 - Present
- **Cybersecurity at CyberSafe Foundation**
  Cybersafe Foundation | Lagos, Nigeria | March 2024 – December 2024
- **Bachelor of Science in Mathematics and Computer Science**
  Maseno University, Kenya | August 2016 – April 2021

Certifications

- Credit Risk Modelling and Management
- AWS AI & Machine Learning
- OCI 2024 GenAI certified
- IBM Machine Learning
- Oracle Java Developer
- Oracle Data Management
- Project Management: PRINCE 2
- CompTIA Linux+