

Melckzedek Kirya Kaisha

Data Scientist | AI & Machine Learning Engineer | Developer

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PROFESSIONAL SUMMARY

Results-driven Data Scientist and AI/ML Engineer with a Bachelor's degree from Meru University of Science and Technology. Specialises in building intelligent, production-ready systems spanning NLP, computer vision, time-series forecasting, generative AI, and recommender systems. Experienced in deploying end-to-end AI applications using modern full-stack technologies. Passionate about applying AI to drive data-informed decision-making in real-world, impact-driven environments.

WORK EXPERIENCE

ICT Attachment — Pensions Department

May 2025 – Aug 2025

National Treasury of Kenya

- Supported ICT operations within the Pensions Department, gaining hands-on exposure to government data systems and digital infrastructure.
- Assisted in data management processes and contributed to internal reporting workflows.
- Collaborated with senior ICT staff to understand enterprise-level information systems in a public sector setting.

EDUCATION

Bachelor of Science — Data Science

Aug 2022 – Apr 2026

Meru University of Science and Technology

Recognised First Level Degree

Kenya Certificate of Secondary Education (KCSE)

Jan 2018 – May 2022

St. Peter's Mumias Boys High School

SELECTED PROJECTS

Ujuzi AI	AI-powered career guidance platform with personalised recommendations	Gemini · Node.js · Supabase · Typescript
Kenya Weather Forecasting	Deep learning multi-step weather prediction models	LSTM · GRU · ConvLSTM · Python
Dharura AI	Real-time AI emergency reporting & analytics platform	Next.js · Supabase · Firebase
Movie Recommender	Content-based recommendation engine using TF-IDF similarity	Python · Scikit-learn · Pandas
Emotion Recognition	CNN and NLP-based multi-class emotion classification system	TensorFlow · OpenCV · Python
Synthetic Data Gen	GAN and VAE implementations for tabular and image data synthesis	TensorFlow · PyTorch

TECHNICAL SKILLS

AI & ML	TensorFlow, Scikit-learn, PyTorch, Keras, OpenCV, HuggingFace Transformers
Data Science	Python, Pandas, NumPy, Jupyter, Streamlit, Google Colab, Matplotlib, Seaborn
Generative AI	Google Gemini, Prompt Engineering, GANs, VAEs, LLM integration
Development	TypeScript, Next.js, Node.js, React, Supabase, Firebase
Languages	English, Swahili

CERTIFICATIONS

- Emerging Technologies Certification — ICT Authority of Kenya
- Cloud Infrastructure Certification — ICT Authority of Kenya

REFERENCES

Available on request. Key references include:

Dr. Anthony Njina Irungu
Senior Lecturer, MUST

Dr. Stephen Makau Mutua
Senior Lecturer & Dean, MUST

Madam Margaret Wairimu Ndungu
Head of ICT, National Treasury