

# Jimmy Edward Matewere

Climate Scientist

jimmymatewere@gmail.com | +265 993 604 968 | linkedin.com/in/jimmy-matewere | github.com/Jimmy-JayJay

jimmy-matewere.vercel.app/

## PROFILE

Climate scientist combining technical analytics with policy insight to drive evidence-based climate action. Processed operational data from 120+ weather stations as a government intern and independently analyzed MWK16B+ in adaptation finance across 48 projects, uncovering critical gaps in resource allocation and geographical equity. Skilled in Python, SQL, GIS, and machine learning with demonstrated ability to translate complex climate data into actionable recommendations for policymakers and stakeholders. Seeking roles in climate adaptation, environmental analytics, or geospatial analysis where data-driven insights inform resilient development.

## SKILLS SUMMARY

**Technical Skills:** Data Science & Analytics | GIS & Remote Sensing | Programming | Data Visualization & Web-Based Communication

**Tools & Software:** Python | SQL | Excel & Power BI | QGIS, ArcGIS | MS Office & Google Workspace

**Professional Skills:** Environmental & Policy Analysis | Technical Communication | Project Management & Stakeholder Engagement | Leadership & Innovation

## EDUCATION

**BSc Meteorology and Climate Science | Credit (78%)**

2021 – 2025 | Thyolo

Malawi University of Science and Technology (MUST)

**Relevant Coursework:** Statistics in Meteorology & Climate Science, Computer Programming (Fortran & Python), Applied Mathematics, Calculus I & II, GIS & Remote Sensing, Climate Modeling, Weather Analysis & Forecasting

## PROFESSIONAL EXPERIENCE

**Department of Climate Change and Meteorological Services**

07/2024 – 12/2024 | Blantyre

Climate Data Analyst - Student Intern

- Analyzed weekly & monthly climate data (rainfall, temperature, humidity) from 21 manned & 100+ automated weather stations using Excel & Python, identifying trends that informed national climate bulletins distributed nationwide & tailored for government ministries and agricultural agencies.
- Developed visualizations & statistical analyses for forecasts, translating weather & climate patterns into accessible formats for policy makers, agricultural stakeholders, and the public.
- Engaged in 8+ stakeholder meetings involving government ministries, NGOs, and development partners on climate data needs & policy priorities.

**Pathway Consultancy Limited**

2023 – Present | Remote

Proposal Developer — Part time

- Developed 5+ technical & financial proposals for development projects across education, agriculture, and entrepreneurship.
- Identified & analyzed 10+ funding opportunities from local donors & foundations, expanding organization's potential funding pipeline.
- Built company website using Next.js, creating responsive landing page showcasing services and organizational profile (pathway-consultancy.vercel.app)
- Liaised with HR, design, and technical teams to ensure proposals were comprehensive, compliant, and competitive.

## RESEARCH & PROJECTS

**Evaluation of Climate Change Adaptation Finance in Malawi**

2025

Independent Research Project | BSc Thesis

- Conducted an analysis of Malawi's climate adaptation finance landscape, producing thesis that identified critical policy gaps in domestic resource mobilization & geographical equity, with findings presented to department committee.
- Analyzed MWK16B+ across 48 CCA projects (2018-2023) using Python, Excel, QGIS, and MAXQDA, revealing 85% international grant dependency, 65% forestry sector concentration, and severe geographical disparities with 11 districts underserved
- Conducted 10+ stakeholder interviews identifying barriers: donor dependence, weak policy enforcement, limited transparency.
- Developed policy recommendations for domestic resource mobilization, sectoral equity frameworks, and improved Climate Finance Management Information System transparency.

## Community Climate Vulnerability Assessment

2023

*Post-Cyclone Freddy Field Research | Academic Group Project*

- Contributed to 6-person research team conducting household vulnerability assessments in cyclone-affected communities in Thyolo District, surveying 30+ households using participatory rural appraisal (PRA) methods & structured interviews.
- Documented flooding patterns, crop loss, infrastructure damage, & economic impacts affecting 30+ households; co-developed adaptation recommendations for flood resilience, agricultural sustainability, and infrastructure improvements.

## Malawi Climate Data Pipeline & Dashboard

*Independent Data Project | Python, PostgreSQL, Streamlit*

- Built an automated ETL pipeline (Python/PostgreSQL) to extract, validate, and load 10+ years of daily climate data from NASA POWER API.
- Developed an interactive Streamlit dashboard with Plotly visualizations for analyzing rainfall and temperature trends across Blantyre, Lilongwe, and Mzuzu.
- Centralized 10,950+ daily climate records in PostgreSQL, streamlining data access for analysis and machine learning workflows while eliminating manual CSV handling. - *Live Demo*

## Assessing Gender Bias in Graduate Admissions in Python

2025

*Femanalytica-DataCamp Project | Python*

- Analyzed UC Berkeley's 1973 graduate admissions dataset using logistic regression in Python, uncovering Simpson's Paradox where gender bias disappeared when controlling for department selection patterns.
- Demonstrated data wrangling, statistical modeling, and visualization skills through the project.

## LEADERSHIP & COMMUNITY ENGAGEMENT

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### African Drone and Data Academy Climate Incubator Program

2024 – Present

*Team Lead | Climate Innovation*

- Led 3-person team developing smart composting solution for climate-resilient agriculture in Malawi, including partner mapping and budget planning (MK2,490,000).
- Integrated climate data into composting processes and presented weekly updates to UNICEF stakeholders, refining technical approach and business model.

### MUST Meteorological and Climate Science Organisation (MUMO)

2023 – 2025

*President*

- Organized 8+ climate awareness workshops reaching 300+ students and community members on disaster risk reduction and sustainable agriculture.
- Established partnerships with 5+ organizations including DCCMS & LCOY Malawi facilitating guest lectures, site visits, and internship opportunities.

## PROFESSIONAL DEVELOPMENT

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### Certificate in Drone and Data Technology Level 1 (CDDT-1)

2025

*African Drone and Data Academy*

- Completed 6-week intensive program covering GIS fundamentals, multi-spectral sensing, unmanned aerial systems, flight physics, and drone mapping applications for agriculture, emergency response, and flood modeling.
- Earned EASA A1/A3 Remote Pilot License authorizing drone operations in EU airspace.

### Professional Data Science Certifications

2025

*DataCamp (Femanalytica Scholarship)*

- DataCamp Certified Data Scientist
- DataCamp Certified Data Analyst
- Completed 50+ courses in statistical modeling, machine learning, data analysis, Python and SQL through competitive scholarship program.

## REFERENCES

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**Mr. Amos Mtonya**, Deputy Director — *Engineering & Communication*, Department of Climate Change & Meteorological Services  
amosmtonya@gmail.com, +265 999 370 480

**Dr Isaac Tchuwa**, Senior Lecturer-Climate Science Department, Malawi University of Science & Technology  
itchuwa@must.ac.mw, +265 881 370 317

**Dr Matthew Fulakeza**, Lecturer-Climate Science Department, Malawi University of Science & Technology  
mfulakeza@must.ac.mw, +265 999 436 104