**DUNCAN KYALO**

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## PROFESSIONAL SUMMARY

Results-driven Data Scientist and Research Scientist with over 3 years of experience in data analytics, machine learning, Software development,  meteorological modeling, and research-driven methodologies. Proven ability to identify knowledge gaps, design robust research strategies, and lead impactful projects, aiming to advance scientific inquiry and practical applications in climate resilience, business development, Software Engineering and environmental science. Skilled in Python, WRF modeling, GIS, SQL, and advanced statistical analysis, with a deep commitment to fostering collaborative partnerships for effective outcomes.

## TECHNICAL SKILLS

**Programming & Tools:** Python, R, Matlab, SQL, Dart with Flutter, Git, GitHub, MS Excel, PowerPoint, Office Suite
**Data Science & Analytics:** Data Cleaning, Feature Engineering, Machine Learning, Statistical Modeling, Big Data, Forecasting, Predictive Analytics
**Research & Business Analysis:** Data Analysis, Report Writing, Business Intelligence, Cost-Benefit Analysis, Risk Analysis, Monitoring & Evaluation (M&E), Climate Simulation
**Climate Tools:** WRF Model, GIS, Satellite Data Integration
**Collaboration & Communication:** Research Presentation, Proposal Writing, Stakeholder Engagement, Cross-disciplinary Collaboration

## PROFESSIONAL EXPERIENCE

**Research Assistant**
*REACH Program (University of Nairobi/Oxford University)* • Feb 2024 – Present
-Lead research initiatives, identifying knowledge gaps and developing scientifically rigorous methods to fill them.
-Spearheaded the collection and analysis of atmospheric data to improve seasonal rainfall prediction models, ensuring methodological precision and relevance to climate resilience.
-Applied WRF modeling to enhance climate forecasts, integrating satellite and radar data into GIS for spatial insights.

-Developed machine learning models for trend forecasting and anomaly detection, driving predictive accuracy in environmental data.
-Led in-house research presentations and collaborated with academic and industry partners to secure project funding.

**Business Analyst**
*EK STORE'S* • Dec 2021 – Jan 2024
-Identified and optimized business processes through data-driven insights, enhancing operational efficiency and aligning business requirements with technical solutions.
-Produced detailed analytical reports and provided data-backed recommendations to support business decisions and mitigate risks.
-Collaborated with cross-functional teams to address data analytics challenges and implement innovative solutions.

**Data Clerk**
*Kenya Meteorological Department, Makindu* • Sep 2021 – Dec 2021
- Recorded and organized meteorological data for national archives and research purposes.
- Interpreted and coded weather data to support forecasting operations.
- Educated farmers on climate-smart agricultural practices based on forecasts.
- Supported climate risk management and disaster awareness efforts.

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## EDUCATION

**MSc Data Science-Meteorology**
*University of Nairobi* • Sep 2022 – Present

**BSc Data Science-Meteorology**
*University of Nairobi, Chiromo Campus* • Sep 2017 – Jun 2021

**Software Engineering**
*Power Learn Project* • May 2024 – Jan 2025

**Kenya Certificate of Secondary Education (KCSE)**
*Makindu School* • 2013 – 2016

**Kenya Certificate of Primary Education (KCPE)**
*Mwatate Junior Preparatory* • 2004 – 2012

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## CERTIFICATIONS & MEMBERSHIPS

**Member**, Kenya Meteorological Society

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## LANGUAGES

- **Swahili:** Fluent (Written & Spoken)

- **English:** Fluent (Written & Spoken)

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## HOBBIES

Traveling • Solving Puzzle Games • Playing Chess

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## REFERENCES

**Bonface Wanguba** • Manager, REACH Program Kenya • +254 716 674 340 •
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**Elpidious Kivindyo** • Manager, EK STORE'S • +254 724 594 860 •
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