

GABRIEL NDUNDA MUTUA

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CAREER PROFILE

A strategic and innovative data leader with expertise in AI, data analytics, and cloud technologies, including AWS, Snowflake, and Terraform. Proven track record in developing and deploying machine learning models, optimising business processes, and building scalable cloud infrastructures. Adept at leading high-impact teams, driving data-driven decision-making, and fostering innovation to solve real-world challenges.

EDUCATIONAL BACKGROUND

Meru University of Science and Technology <i>Bachelor of Science in Actuarial Science</i>	2011 - 2015
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CERTIFICATIONS

AI and Data Analytics Mastery on AWS.

- [AWS Certified AI Practitioner.](#)
- [AWS Certified AI Practitioner Early Adopter.](#)
- [AWS Certified Data Analytics – Specialty.](#)

Cloud Mastery Essentials: Achieving Azure and AWS Proficiency.

- [Microsoft Certified: Azure Fundamentals.](#)
- [AWS Certified Cloud Practitioner.](#)
- [AWS Certified Solutions Architect – Associate.](#)
- [AWS Certified Developer – Associate.](#)

Advanced Data Management and Infrastructure: AWS Analytics, Snowflake, and Terraform Proficiency.

- [Snowflake: Hands-On Essentials: Data Warehousing Workshop.](#)
- [HashiCorp Certified: Terraform Associate \(002\).](#)

Data Analysis and Visualization Mastery: Power BI, Python, R and Statistics.

- [Microsoft: Analyzing and Visualizing Data with Power BI.](#)
- [6.00.1x: Introduction to Computer Science and Programming Using Python.](#)

PROFESSIONAL EXPERIENCE

Jan 2023 - Now	Senior Data Analytics Specialist - One Acre Fund	Nairobi, Kenya
<ul style="list-style-type: none">• Developed and executed a comprehensive data and analytics strategy to drive impact and enhance operational efficiency.• Led developing and deploying advanced machine learning models, optimising decision-making and improving data processing speed by 30%.• Designed and implemented predictive and prescriptive analytics solutions, improving forecasting accuracy and resource allocation by 20%.• Built data-driven products, including real-time interactive dashboards, integrating multiple data streams to support decision-making for stakeholders.• Applied AI and advanced analytics to optimise program impact, enhance customer segmentation, and improve risk assessment models.• Conducted exploratory data analysis (EDA) to uncover trends, patterns, and anomalies, strengthening business intelligence capabilities.• Established robust data governance, collection, and management processes to ensure data integrity, security, and compliance with regulatory requirements.• Integrated UX analytics into core tech-driven products, improving adoption and engagement.• Directed successful collaborations with key stakeholders and external partners to integrate diverse data sources, enhancing analytical capabilities.• Designed innovative data approaches to assess program impact, implementation success, and scalability.• Led and mentored a high-caliber team of data scientists and analysts, fostering a culture of continuous learning, innovation, and technical excellence.• Managed the project cycle by ensuring timely delivery, effective coordination of resources, and optimization of workflow efficiency.• Developed scalable data pipelines and automated ETL processes using Snowflake, SQL Server, and Dataiku, ensuring seamless data ingestion and transformation.• Spearheaded strategic data communication, simplifying complex data insights into clear, actionable narratives for decision-makers.• Designed and implemented a mentorship program, upskilling team members in data engineering best practices, leading to a 25% increase in project delivery speed and quality.• Regularly reviewed data systems, policies, and processes to ensure compliance with data governance and security standards while recommending innovations based on assessments and organisational needs.• Optimised data platform documentation to align with Tupande's standards and created accessible technical documentation for team members.• Designed data collection, dashboarding, and final reporting frameworks for the agroforestry program, improving data accessibility and impact measurement.		

Oct 2018 - Dec 2022	Senior Data Scientist - Arifu	Nairobi, Kenya
<ul style="list-style-type: none">● Developed and deployed advanced machine learning models to enhance decision-making for key partners, including KCB, Mastercard, Yara, and Equity, ensuring tailored analytics solutions that met their business needs.● Designed and optimized Arifu's BI infrastructure using AWS cloud technologies (S3, Glue, Athena, QuickSight, and Redshift), leading to a more scalable and efficient data ecosystem capable of handling complex analytics tasks.● Led the development of a recommendation engine leveraging NLP and predictive modeling, driving a 30% increase in user engagement by personalizing digital learning content for over a million users.● Implemented end-to-end data science workflows, from data extraction and transformation to model deployment, improving operational efficiency and reporting accuracy.● Built and automated predictive analytics models, including churn prediction models that enabled proactive intervention strategies, reducing churn rates by 15%.● Integrated advanced AWS services, including Lambda (serverless computing), EMR (big data processing), and RDS (managed relational databases), enhancing scalability and processing efficiency.● Managed a team of data engineers and junior data scientists, fostering a culture of continuous learning, innovation, and data-driven decision-making. <p>•</p> <p>Collaboration with Jacaranda Health:</p> <ul style="list-style-type: none">● Integrated a machine learning model to predict maternal mortality risk into the Arifu chatbot platform, enabling healthcare workers in Kenya to access and use this model via their mobile phones to identify and target high-risk pregnant women for preventive care. This integration has helped to increase the number of pregnant women who receive preventive care from Jacaranda Health by 10%. <p>Collaboration with the International Institute of Tropical Agriculture (IITA):</p> <ul style="list-style-type: none">● Integrated a machine learning model to predict cassava yields into the Arifu chatbot platform, enabling farmers in Nigeria to access this model via their mobile phones to make informed decisions about planting and harvesting.● Developed a new Arifu chatbot module to provide farmers with personalised advice on banana black sigatoka disease control, which has helped farmers in Rwanda reduce crop losses.● Worked with Arifu engineers to optimize the performance of the chatbot platform to handle increased traffic from farmers, ensuring that farmers can access the information and advice they need promptly.		

Nov 2015 - Oct 2018	Data Learning Associate - Evidence Action	Nairobi, Kenya
<ul style="list-style-type: none">• Performed in-depth data analysis and created comprehensive data summaries using descriptive and inferential statistics, extracting actionable insights from complex datasets.• Developed interactive dashboards and visual reports using Power BI, Tableau, and Excel, enhancing data accessibility and usability for program teams.• Led data cleaning, transformation, and validation processes, ensuring accuracy, consistency, and completeness of MLIS (Monitoring and Learning Information System) data.• Conducted advanced data manipulation and automation using Python, R, and SQL, streamlining data workflows and improving efficiency.• Provided predictive and prescriptive analytics, identifying trends and patterns to support strategic decision-making in monitoring and evaluation (M&E).• Collaborated with program teams to understand their specific data needs, offering tailored data-driven recommendations to optimize program effectiveness.• Designed and implemented data quality assessment frameworks, ensuring high standards of data integrity and reliability.• Explored and integrated innovative monitoring and evaluation (M&E) research methods and analytical tools, improving program impact assessment.• Spearheaded A/B testing and impact evaluations, contributing to evidence-based program design and policy adjustments.• Developed and managed a knowledge management system, facilitating seamless data retrieval, documentation, and utilization for program improvement.• Trained program staff on data visualization, interpretation, and best practices, strengthening data-driven decision-making culture across teams.• Played a key role in cross-functional collaboration, working closely with field teams, researchers, and policy-makers to ensure alignment between data insights and program strategies.		
<p>Key Achievements:<i>Translated and conceptualized data into clear and useful written and visual outputs to support program teams in evidence-based decision-making.</i></p>		