



Vital Ahishakiye

Data Scientist

Work Experience

Graduate Research Assistant

September 2024 – Present

CMU-Africa | Kigali

- Analysed over 5M cab and moto taxi trips and conducted a survey on transportation modes in Kigali, focusing on user satisfaction and wait times.
- Co-authored "Towards Digital Twins for Urban Mobility in Sub-Saharan Africa", examining mobility patterns and cost-time efficiency across various modes.
- Delivered insights to inform Rwanda Utilities Regulatory Authority (RURA) and optimize urban mobility strategies.

Graduate Research Summer Intern

June 2024 – August 2024

CMU-Africa | Kigali

- Collaborated with government and private institutions to collect and process over 15M mobility data entries (2017–2023).
- Data collected facilitated the creation of two research papers on intelligent transportation and other ongoing research.

PROJECTS

- **Educational Accessibility in Rwanda:** Analyzed schools and 2022 census data to identify disparities in early childhood education access, particularly in rural areas. Highlighted critical gaps, driving targeted policy interventions for equitable infrastructure development and resource allocation - [link](#).
- **Employment Factors in Rwanda:** Investigated key contributors to unemployment using Rwanda's 2022 Census data. Publicized findings that highlighted the critical role of quality education in employment opportunities, empowering youth to make informed decisions about their education investments- [link](#).
- **Automated Palm Tree Counting:** Replaced manual counting of drone-captured images with an automated detection system, reducing processing time from over 12 minutes per image to less than one second, improving efficiency and accuracy.

LEADERSHIP

Social Affairs Minister

January 2024 – December 2024

Student Guild, CMU - Africa

- Led a team of 8 from 4 nationalities to implement 4 impactful initiatives, enhancing the well-being and engagement of 300+ students from 22 countries.

VOLUNTEERING

Data Analyst

March 2024 – Present

Statistics Without Borders | March 20 Present

- Supported a nonprofit in analysing attendance data to improve education outcomes in remote Indigenous communities.
- Developed dashboards and analytics to track progress toward increasing high school graduation rates.

Contacts

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Education

Ms. Electrical and Computer Engineering

Carnegie Mellon University

2023 - 2025

Bs. Electrical Power Engineering

University of Rwanda

2017 - 2022

Relevant Courses

- Data Inference and Applied Machine Learning
- Programming for Data Analytics
- Data Analytics
- Applied Computer Vision
- Machine Learning for Earth Observation
- Geographic Information System
- Interactive Data Science

Skills

- Python
- Excel
- SQL
- R
- Tableau
- ArcGIS Pro
- Power BI

Certificates

Google Advanced Data Analytics Professional Certificate

Google Career Certificates

March- September 2024

AI Empowerment for Teams

Vjal Institute

June 2024