Innocent Nzimenyera

Phone: (+250) 781 946 105 **Email**   **GitHub**   **LinkedIn**   **Portfolio** **ResearchGate profile**

Summary Section

Digital and data leader with deep strength in mathematics, statistics, and AI skilled at turning complex datasets into clear, high-impact decisions. I connect business and tech to deliver models and dashboards that improve growth, efficiency, and customer experience.

Education Background

Carnegie Mellon University   Aug 2022–May 2024
Master of Science in Information Technology   *Kigali, Rwanda*
Specialization in Applied machine learning, Data Science

University of Rwanda, College of Science and Technology   Sep 2015-Nov2019
BSc (Hons) in Computer Science   *Huye and Kigali, Rwanda*

Group scolaire Remera Rukoma   Sep 2012-Nov2014
High school certificate in Mathematics, Physics, and Computer Science   *Kamonyi, Rwanda*

Work Experience

Global Green Growth Institute.   Nov 2024-Present
AI and Data Analyst   *Kigali, Rwanda*

- Designed an interactive AI-driven dashboard for the Green Growth Index and Simulation Tool, enabling policymakers to analyse countries' performance in achieving sustainability targets and explore complex scenarios.: **https://ggindex-simtool.gggi.org/**
- Took the initiative to decrease time spent on data collection and easy processing through pipeline automation.
- Support the drafting and editing of reports for publication.
- supported capacity building for the AI-driven Global Green Growth Index and Simulation Tool for national and international experts
- Supported in secure AI development environments, technical proposals, and platform design reviews.
- Trained team members in modeling and coding best practices.

United Nations/International Telecommunication Union (ITU)   Apr 2024- July 2025
AI for Good Scholar - Hybrid   *Geneva, Switzerland*

- Conducting research for the projects focused on AI for SDGs
- Analyse and improve the AI use cases.
- Communicating findings and insights effectively
- Collaborating with international use cases authors on AI projects

Global Green Growth Institute.   June 2021-Oct 2024
Data Science Consultant - Remote   *Seoul, South Korea*

- Collaborate with the GGPM Team to establish databases, tools, guidelines, and documentation. Conduct data collection, analysis, and reporting for the Green Growth Index and Simulation Tool.
- Develop Python scripts to extract data from international organization databases.
- Apply statistical methods to improve the quality and understanding of existing data.
- Maintain knowledge excellence and support capacity-building workshops and conferences for internal and external audiences.

Carnegie Mellon University.   Aug 2023-May 2024
Graduate Teaching Assistant (Data Analytics and Practicum courses)   *Kigali, Rwanda*

- Assisting with course delivery using Python programming language
- Implementing AI algorithms for automated grading and performance assessment to ensure consistency and efficiency.

- Student Support and Engagement

ARED Group Inc.   May 2023-Aug 2023
Research Assistant -Remote   *Georgia, United States*

- Collaborate with the team to perform requirements analysis and research, leveraging AI tools for data insights and trend identification.
- Oversaw data collection using quantitative and qualitative methods.
- Share insights with teams using AI-driven visualization and reporting.

Rwanda Ministry of ICT and Innovation.   Sept 2019-June 2021
Digital Ambassador   *Kigali, Rwanda*

- Preparing ICT training for people to increase their digital literacy, resulting in increased access to ICT and the use of online systems and services.
- Updated course content depending on the user's adaptabilities.
- Creating and monitoring user-friendly templates for other team members used for reporting.

National Bank of Rwanda.   Jun 2018-Oct 2018
Intern   *Kigali, Rwanda*

- Offered tech support using a help desk app, including research-related tasks.
- Conducted researched local domains, banking security, and technology aspects such as networking, database, and data warehouse.
- Collaborated with departments to ensure smooth technology operations.

Ministry of Education   Jun 2016-June 2018
Data Entry Clerk   *Kigali, Rwanda*

- Accurately input and update data into various systems and databases.
- Verify the accuracy and completeness of data before entry.
- Perform regular data backups to ensure data preservation and maintain and manage digital and physical records.
- Conduct regular data quality checks and correct any discrepancies.

Research & Technical Publications

- AI Ready – Analysis Towards a standardized readiness Framework 2026: **Link**
- Green Growth Index – A Comparative Assessment of Green Growth Performance in the African Least Developed Countries (LDCs) : **Link**
- 2025 AI for Good Innovate for Impact report: **link**
- Network science and explainable AI-based life cycle management of sustainability models: **Link**
- Report for the "2024 AI For Good" initiative, focusing on the UN's Sustainable Development Goals (SDGs): **Link**
- Kenya National Green Growth Index 2023: **Link**
- Ghana National Green Growth Index 2023: **Link**
- Global Green Growth Index 2022: **Link**
- Global Green Growth Index 2021: **Link**
- Azerbaijan's Transition to Green and Inclusive Growth - A Comparative Assessment with the Central Asian Countries: **Link**
- Zambia National Green Growth Index 2022: **Link**
- Green and Blue Economy Synergy – Concepts and Methods for the OECS Green-Blue Growth Index: **Link**
- Efficient Connected Components Solution Using Depth-First Search Algorithm: **Link**

Skills

- **Programming & Databases:** Python, Java, C/C++, JavaScript, Vue.js; SQL, PostgreSQL, Oracle, MS Access
- **DevOps & Platform:** Kubernetes, Docker, GitOps, CI/CD, Terraform, Ansible, Environment Automation

- **Cloud & Big Data:** AWS, GCP, Azure; Spark, Hadoop, Kafka; ETL & Pipelines (Airflow, NiFi)
- **Machine Learning & AI:** TensorFlow, PyTorch, Scikit-learn, Keras; Deep Learning (CNN, RNN, GAN); MLOps (Model Deployment, Versioning, Monitoring, Retraining)
- **Analytics & Visualization:** R, MATLAB, Stata, SPSS, Tableau, Power BI, Excel; Data Modeling & Feature Engineering
- **IT & Security:** Linux, Windows, Git/GitHub/GitLab, Bash; System Monitoring & Security Practices
- **Languages:** Kinyarwanda (Native), English (Fluent), French (Basic), Swahili (Basic)

Projects

- AI-Driven Rwanda Index and simulation tool for accessing Gender Equality and Social Inclusion (GESI): **Link**
- Green Growth Indexes and Simulation tools: **Link**
- AI- Supported Green Growth Simulation Tool for Assessing SDG Co-benefits: **GitHub link**   **website link**
- Efficient Connected Components Solution Using Depth-First Search Algorithm: **Link**
- Learn Python for Machine learning: **Link**

Public Service & Volunteer Work

Rwanda Space Agency & CMU-Africa.   Jun 2023-April 2024

Research and Data Analyst   *Kigali, Rwanda*

- Acquiring, cleaning, and organizing data from various sources.
- Applying statistical methods and creating visual representations to identify trends and insights.
- Support Agri-yield research with spectral signatures and machine-learning modelling.
- Working with stakeholders and team members to address data-related issues and provide actionable recommendations.

United Nations.   Jul 2019-June 2021

Volunteer   *Kigali, Rwanda*

- Engaging in practical mobilization efforts to generate funds for the Cameroon Association of Active Youths (CAMMAY) by utilizing social media platforms for impactful outreach and fundraising initiatives.