

ISHIMWE KAREKEZI GUY GAEL

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SUMMARY

Qualification highlights: Electronics and Telecommunications Engineering graduate currently pursuing a master's in engineering

Artificial Intelligence at Carnegie Mellon University Africa. Passionate about leveraging technology to solve real-world challenges in energy, IoT, AI, and data science. Demonstrated expertise through hands-on projects including development of a smart energy meter for real-time electricity consumption monitoring. Proven leadership through active involvement in university engineering clubs and strong foundation in networking, artificial intelligence, and data analysis. Highly motivated team collaborator with a genuine enthusiasm for building innovative, cost-effective solutions that create meaningful impact in people's lives. Always eager to explore new ideas, connect with others, and continuously expand problem-solving capabilities

EDUCATION

Masters of Science in Engineering AI

August 2025 - Present

Carnegie Mellon University, Africa

Electronics and Telecommunication Engineering

April 2021 - June 2025

University of Rwanda, Kigali, Rwanda.

College of Science and Technology

School of Engineering

Department of Electrical and Electronics Engineering

Electronic and Telecommunication Engineering

Relevant Coursework: Comprehensive knowledge of computer networks, satellite systems, and wireless communication, complemented by advanced expertise in artificial intelligence for telecommunications, data analysis, and signal processing. Practical experience in designing embedded systems and working with digital electronics, providing a strong foundation for addressing complex challenges in the field.

PROFESSIONAL WORK EXPERIENCE

Academic Intern

March 2024 - May 2024

MTN RWANDA, Kimironko

PROFESSIONAL SKILLS

- Computer Networking.
- Network planning.
- Python Programming.
- C and C++.
- Microsoft Excel.
- AI and Data Analysis.
- SQL.
- Java.

PROJECTS

Key Achievements:

November 2024 - June 2025

- **Technologies:** IoT, Embedded Systems, Data Analytics | Duration: 3 months.
- Developed an intelligent energy monitoring solution enabling households and small enterprises to track electricity consumption in real-time. The system provides actionable insights for energy optimization and cost reduction, demonstrating practical application of IoT principles and data analysis techniques to address energy management challenges in residential and commercial settings.
- Designed and implemented real-time monitoring capabilities for accurate energy consumption tracking.
- Created user-friendly interface for easy access to consumption data and analytics.

- Demonstrated cost-effective solution approach suitable for widespread deployment.
- Applied embedded systems knowledge to create reliable and efficient hardware-software integration.

Mobile Money Mimic System using C

December 2023 - January 2024

- **Technologies:** C Programming, System Design | Duration: Third Year Project | GitHub: <https://github.com/GuyGael-Karekezi/C-codes.git>.
- Collaborated with a 7-member team to develop a comprehensive mobile money system replica using C programming language. The project simulated core functionalities of mobile financial services, demonstrating understanding of financial technology systems and collaborative software development practices.

Key Features:

- **Team Members:** Ishimwe Karekezi Guy Gael, Mpuhwezimana Jean Gabriel, Ingabire Ferdinand, Mukiza Emely, Nshimiyimana Emmanuel, Ingabire Fabiola, and Rutayisire Moise.
- Implemented secure transaction processing and user authentication systems.
- Designed user-friendly command-line interface for various financial operations.
- Applied software engineering principles for robust system architecture.
- Demonstrated effective teamwork and project management in collaborative development environment.

CERTIFICATIONS

ALX- AI Augmented Professional Development Skills in the Digital Age.

Alison- Basics of Computer Networking.

Udacity- Data Analysis Fundamentals.

Udacity-Artificial Intelligence Fundamentals.