GEDEON MUHAWENAYO

PERSONAL IDENTIFICATION

Full name: GEDEON MUHAWENAYO

Nationality: Rwandan

Date of Birth: 13th March 1996

Address: KG215st, Remera, Kigali-Rwanda

Mobile Phone: +250 788 365 398

Email: gmuhawenayo@aimsammi.org, **Website:** https://gedeonmuhawenayo.github.io

CAREER SUMMARY

I am a machine learning engineer, with strong interests in integration of artificial intelligence models within Software, IoT systems, Robotics and Security systems that could mimic human behavior. I also like designing and implementing efficient models to be deployed on edge devices.

EDUCATION

African Institute for Mathematical Science / Master's Degree
Sept 2019 - Oct 2020, GHANA

African Masters in Machine Intelligence-AMMI: Funded by Google and Facebook.

University of Rwanda / Bachelor of Science
September 2015 - July 2019, Rwanda

Bsc. Electronics and Telecommunication Engineering.

TRAININGS & CERTIFICATIONS

- **Deep learning specialization:** Neural network, Convolutional networks, recurrent neural networks.
- **Data structures and algorithms:** Different data structures, and implementation of efficient computer algorithms
- **C/C++ essential:** Advanced computer programming using C/C++ programming language.
- **ICT Engineering Training Course:** Internet of Things (IoT), Cloud Computing and Remote sensing and Leadership skills by Kobe Institute of Computing via JICA (Japan International Cooperation Agency) (Kigali, Rwanda, 2018).
- **Fiber Optic training workshop:** by Liquid Telecom and KTRN (Korea Telecom Rwanda Networks), covered; Components of fiber-optic communication, Fiber Splicing, Point to point fiber-optic communication link (installation and Testing), Optical power budget and optical loss measurement, Introduction to OTDR, Passive Optical Network (PON). (Kigali-Rwanda, 2019).
- **Cisco Certified Network Associate (CCNA)**: Computer networking, IP addressing, Subnetting and Network Configuration by RDB (Huye, Rwanda, 2017).

PROJECTS

- **Sentiment analysis**: Deep learning approach to analyse text data scraped from social media and classify the sentences with respect to their sentiment either positive or negative.
- **Model compression:** Research project on novel ways of compressing AI models so that they can fit on low memory devices like mobile phones and IoT nodes.
- **Spam mail classification**: Machine learning approach to classify email either as a spam mail or not.
- **Plantations Diseases Classification,** Classifying pictures of cassava leaves into 1 of 4 diseases or hearth, this is useful in earth observation as it helps to use satellite/drone images to predict plantation diseases.
- **LandCover**: a computer vision approach to analyse and recognise major objects from satellite and aerial images
- **Objects detection**: an approach of detection and tracking of objects of interests in images and video.
- **Signals and Functions analyzer UI:** A desktop app (GUI) for analysing signals and visualization.
- More projects can be found here on my website under the [Projects](#) portal.

WORK EXPERIENCE

- **Spectrum AI /** Computer vision Intern

  March 2020 - September 2020, Remote Internship

  Graph Convolutional Neural Networks for analysing and clustering graph data like social network and transport system.

- **Techno Engineering Company /** Telecom Engineer.

  June 2019 - Oct 2019, Kigali, Rwanda

  Computer network planning, configuration and troubleshooting.

COMPETENT SKILLS

Programming & Frameworks: Python, C,C++, PyTorch, OpenCV, Numpy, Pandas, Scikit learn, Detectron2, AstroPy etc.
Operating Systems: Linux (Debian), Windows.
Cloud Computing: Google Cloud Platform
Version control and collaboration: Git / Github

VOLUNTEERING

- **10Academy**: I am a tutor in the Data Science training delivered to selected graduates from Rwanda, Kenya, Ethiopia, Ghana and Nigeria.
- **The Giants electronics**: I am a learning facilitator and a creativity director in the giants electronics lab.

REFERENCES

- **Supervisor**: In my masters thesis I worked on models compression with **Georgia Gkioxari**, a researcher at Facebook AI Residency.
- Dr. Louis SIBOMANA, Head of Electrical and Electronics Engineering at University of Rwanda, +250782588422 l.sibomana@ur.ac.rw   or   lewis.sis@gmail.com nivers
- Teta BAHUNDE, Program Manager at African Masters in Machine Intelligence (AMMI), +250 788 309 332 , tbahunde@aimsammi.org
- Mathilde NYIRANGENDAHIMA, Executif secretary(ES) of Rwimbogo Sector, former ES at Nzahaha Sector. Tel: +250 787 268 732.