CURRICULUM VITAE

Bertille NAMAHORO

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FIELDS OF EXPERTISE AND SKILLS

- Embedded Systems Design Developing and programming micro controllers for various applications.
- Computer based tasks and manipulation -this includes various computer tools such as the use of microsoft offices (word, excel, publisher and power point), labview, proteus, arduino, IBM SPSS, iinternet, adobe illustrator, adobe photoshop, pinnacle studioetc
- Wireless Communication Designing and optimizing communication systems like 4G and Wi-Fi.
- **Signal Processing** Analyzing and manipulating signals for applications in audio, video, and data transmission.
- Network Design and Management Building and maintaining efficient communication networks.
- Optical Communication Working with fiber optics for high-speed data transmission.
- Radar and Microwave Engineering Designing and working with radar systems and microwave technologies.
- Antenna and Propagation Engineering Designing antennas and studying wave propagation.
- Control Systems Implementing automation and control in electronic devices.
- **IoT** (**Internet of Things**) Creating interconnected devices for smart applications.
- **Telecommunication Systems** Managing and improving communication systems and infrastructure.
- **Software Defined Radio (SDR)** Developing flexible radio systems that can be reprogrammed for various uses.
- Data Communication and Networking Handling protocols, encryption, and secure transmission of data.
- Audio and Speech Processing Working with sound technologies and speech recognition systems.

EDUCATION

Rwanda Polytechnics (IPRC Gishari College, Rwanda)

• Advanced diploma in electronics and telecommunications technology 2022-2024

Nyanza TVT School (ETO Gitarama), Nyanza, Rwanda

• Advanced Certificate in telecommunication,

2018-2021

INFORMAL EDUCATION AND TRAINING

• Certificate of achievement: "Integrating Ethics and Governance into the Design of Artificial Intelligence Tools for Health: Case Study - Cervical Cancer Screening" from the World Health

Organization (WHO), Geneva, Switzerland, 2024 via online mode

- Certificate of completion: "Entrepreneurship" Organized by the AI and IoT application research results commercialization through incubation hub at african Centre of excellence in internet of things (ACEIoT) under RISA fund support from 22nd to 26th July, 2024
- Certificate of Appreciation: "Leadership" Nyanza TVT school (ETO Gitarama), Rwanda 2023

WORKING EXPERIENCE AND POSITIONS

Internship Experience at **Isango Star Radio and Television Station**, Nyarugenge Kigali November 2018 - December 2018

- **Equipment Maintenance** Ensuring all broadcasting equipment is in good working condition.
- Broadcasting Operations Operating and managing transmission equipment during live broadcasts.
- **Signal Monitoring** Monitoring audio and video signals for quality and troubleshooting issues.
- **Technical Support** Providing technical assistance during live shows, ensuring smooth operation.
- **Transmission Control** Managing transmission settings and ensuring proper signal broadcast.
- **Preventive Maintenance** Conducting regular checks and repairs to avoid equipment failures.
- **Troubleshooting** Diagnosing and fixing technical issues in equipment or signals.
- System Calibration Calibrating equipment to ensure optimal performance and broadcast quality.

Internship Experience at ASPROD Studio, Nyarugenge Kigali, November 2019- December 2019

- Operated professional cameras and ensured proper lighting for video shoots.
- Assisted in setting up equipment, including tripods, microphones and lighting rigs.
- Edited videos using editing software (Adobe premiere pro, pinnacle studio, cinema 4D), ensuring high quality output and timely delivery.
- Collaborated with the team to develop creative concepts and storyboards for projects
- Maintained and organized studio equipment
- Gained experience in color grading, sound editing, and video transitions

Internship Experience at **KT Rwanda Networks**, Gasabo Kigali September 2023- November 2023

- 4G LTE Architecture Understanding the structure and components of 4G LTE networks.
- **Network maintenance and Monitoring** Assisted in the maintenance and monitoring of 4G LTE network infrastructure to ensure optimal Performance and uptime.
- **Equipment installation** participated in the installation and configuration of networking equipment including routers, switches, and base stations.
- **Network transmission medium** understanding network medium transmission, assisted installation of microwave antenna and fiber optic network cable.
- **Technical support** supported the technical team in troubleshooting connectivity issues and resolving customer complaints.
- **Performance analysis** analyzed network traffic and performance data to identify and report areas for improvements
- **Documentation** prepared technical document and reports for daily operations and projects updates
- Collaboration- worked closely with the Engineering team to enhance network reliability and expand service coverage.

Internship Experience at **Bicosin ltd**, Kigali Rwanda August 2024- November 2024

- **Fiber optic network installations-** assisted in the installation, splicing, and testing of fiber optic cables to establish reliable, high speed internet connections.
- CCTV Cameras installation- supported the installation of cctv cameras, ensuring proper placement, wiring and integration with monitoring system for security solutions.
- **Domestic electrical installations-** contributed to the installation and maintenance of domestic electrical systems, including wiring, troubleshooting, and ensuring adherence to local safety standards.
- **Fire alarm system setup-** participated in installation and testing of fire alarm systems, ensuring proper wiring and configuration for reliable emergency detection.
- **System testing and troubleshooting-** helped test and troubleshoot all installed systems (fiber optic, cctv, fire alarms) to ensure optimal performance and resolve technical issues.
- **Customer support-**assisted in providing on-site technical support, demonstrating system functionality to clients, and addressing questions or concerns.

AWARDS, GRANTS, AND FELLOWSHIPS

Fully Funded Scholarship, by government of Rwanda to study at Gishari College which was a merit scholarship after passing high school national exam with excellent marks.

LANGUAGES

• English: proficiency

• French: basic

• Kinyarwanda: native

VOLUNTEERING AND EXTRACURRICULAR ACTIVITIES

• Red Cross Blood Donation Campaigns in Rwanda

January, 2017- Present

Responsibilities and tasks:

- Assist in organizing and promoting blood donation drives
- Educate community members on the importance of blood donations
- Work in collaboration with healthcare professionals to ensure smooth operations during campaigns
- Umuganda Community Program in Rwanda

January, 2018- Currently

Responsibilities and tasks:

- Actively engage in community-driven projects aimed at improving public health in Rwanda
- Develop leadership and teamwork skills by coordinating with community members on various projects

REFERENCES

- Jean Claude NDAYISHIMIYE, Ph.D., Senior Lecturer, Shenzhen MSU-BIT University, 1 International University Park Road, Shenzhen, China, Phone: (+86) 15960235991, E-mail: 6420210004@smbu.edu.c
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