# **Boniface UWIZEYIMANA**

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**Github:** https://github.com/Bon100

Work: Alexandria (Egypt)Home: Kigali (Rwanda)

#### **ABOUT ME**

Passionate about contributing to science and solving real problems facing humanity by being creative, innovative, and always thinking outside the box. I am enthusiastic about computer programming and computer-oriented solutions to problems. I am a believer in hard work in the words of Vince Lombardi "The man on the top of the mountain didn't fall there".

#### **EDUCATION AND TRAINING**

# **Master of Science in Electronics and Communication Engineering**

Egypt-Japan University of Science and Technology (E-JUST) [ 17/10/2021 - 31/01/2024 ]

**City:** Alexandria **Country:** Egypt

Website: https://ejust.edu.eg/

Thesis: RESOURCE ALLOCATION FOR 6G HETEROGENEOUS NETWORK

# **Main contribution:**

- Studying the potential of machine learning to the resource allocation of the 6G networks
- Efficient resource allocation for the Integrated Aerial and terrestrial networks including user association, power and channel allocations.

# Bachelor of Science in Electronics and Telecommunication Engineering

*University of Rwanda* [ 01/09/2015 – 08/11/2019 ]

City: Kigali

Country: Rwanda

Website: https://ur.ac.rw/

Final grade: Second Class Upper division

Thesis: GPS-BASED VEHICLE ACCIDENT ALERTING SYSTEM

This project aimed to minimize the risk of death in case a vehicle accident happens with no fast support. By using GPS, GSM, Accerelometer modules and Arduino, we designed a system to send SMS automatically to the nearest hospitals and police stations.

# **WORK EXPERIENCE**

# IT engineer

**BRAIN WORKS AFRICA** [ 01/02/2019 - 08/11/2020 ]

City: Kigali

Country: Rwanda

Website: https://www.brain-works.co.jp/

- · Software and mobile application development
- IT-related research projects
- Media projects

# **Electronics and Production Engineer**

**SAHASRA ELECTRONICS RWANDA PVT LTD** [ 28/07/2018 – 31/01/2019 ]

City: Kigali

Country: Rwanda

Website: https://www.sahasraelectronics.rw/

- · Assembling, Repairing, maintaining and installing LED lights
- Developing manufacturing process
- Testing the LED lights

#### PROFESSIONAL TRAINING AND WORKSHOPS

#### **AWS Certified Cloud Practitioner**

[15/09/2022 - 15/12/2022]

# Azubi Africa and Amazon Web sevices

#### Skills covered:

- Introduction to cloud computing
- Amazon web services (Storage services, Networking services, Database services, Security services, ETC)
- Linux operating system

Link: https://www.credly.com/badges/9386ccab-caec-4a91-b9fb-917a4825c42b/linked in?t=rmvyhh

# NI mmWave and Multiple Input and Multiple output (MIMO) training

[11/05/2022 - 14/08/2022]

# **EJUST and National Instrument (NI)**

# Skills covered:

- Implementation of NI mmWave for 5G and B5G communication system
- overview of the MTS system and assembling.
- Implementation of Massive MIMO system, assembling the hardware equipment
- Overview of LABVIEW COMMUNICATION SUITE to run mmWave experiment and massive MIMO

# KEY PERFORMANCE INDICATORS FOR GOVERNANCE EFFECTIVENESS IN AFRICA COURSE

[ 08/02/2023 - 09/09/2023 ]

Offered by National Institute for Governance and Sustainable Development, Egypt

# **EMBEDDED SYSTEM WORKSHOP**

[ 09/2015 - 07/2019 ]

# The University of Rwanda and The Giants Electronics

#### Skills covered:

- Implementing electronics and embedded system projects
- Real-time monitoring for Aquaculture
- Remote controlling and automatic irrigation system
- Implementation of automatic street light lamp
- ETC.

#### FIBER OPTIC COMMUNICATION WORKSHOP

[23/07/2019 - 24/07/2019]

University of Rwanda, Liquid Telecom, and KT Rwanda Networks

#### Skills covered:

- Practical implementation of power budget design for optical communication.
- Designing and implementing fiber optic links, splicing, testing, and measuring power and losses of the link.

#### IT ENGINEER DEVELOPMENT COURSE

[01/01/2019 - 11/07/2019]

# JICA, Kobe Institute of Computing (KIC) and ICT Chamber

# Skills covered:

- The ICT Engineer Development course
- Internet of Things (IoT) practical skills and projects
- Leadership skills
- Tankyu practice and Business model

# **CONFERENCE ATTENDANCE**

[19/12/2022 - 20/12/2022]

# International Japan-Africa Conference on Electronics, Communications and Computations (JAC-ECC 2022)

Presented a paper entitled: "Multi-Armed Bandit and Repeated Auction Approaches for User Admission and Channel Allocation in 5G HetNets"

# AFRICAN CLIMATE AMBASSADORS

[15/05/2022 - 26/05/2022]

Offered by Ain Sharms University, Egypt

#### **LANGUAGE SKILLS**

Mother tongue(s): Kinyarwanda

# Other language(s):

English French

LISTENING C1 READING C1 WRITING C1 LISTENING B1 READING B1 WRITING B1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1 SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

Chinese Arabic

LISTENING A2 READING A2 WRITING A1 LISTENING A2 READING A2 WRITING A1

SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2 SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

# **DIGITAL SKILLS**

#### **Programming languages and software**

C and c++ / MATLAB & MATLAB SIMULINK / Python / Web Development HTML 5 CSS PHP JavaScript

# **Professional skills**

Artificial İntelligence / Machine learning / Deep Learning / Solid understanding of Neural Network, Machine Learning and Deeplearning

# **Artificial Intelligence tools**

MATLAB Deep Learning Toolbox / Deep Learning Tensorflow and Keras

# **PUBLICATIONS**

A Multi-agent Multi-armed Bandit Approach for User Pairing in UAV-assisted NOMA-Networks

<u>To be published in IEEE and presented in 2023 ISNCC conference:</u> The 10th International Symposium on Networks, Computers and Communications, will be held at the FIFA World Cup 2022 City- Qatar, from October 23 to 26, 2023. <a href="https://www.isncc-conf.org/">https://www.isncc-conf.org/</a>

# Multi-Armed Bandit and Repeated Auction Approaches for User Admission and Channel Allocation in 5G HetNets

[2022]

<u>Published</u>. This work has been published in the 2022 10th International Japan-Africa Conference on Electronics, Communications, and Computations (JAC-ECC).

Link: https://doi.org/10.1109/JAC-ECC56395.2022.10043930

# ADDITIONAL INFORMATION

#### Referees

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