# CHARLES ITA EKANEM

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## **EDUCATION**

#### NILE UNIVERSITY OF NIGERIA, Abuja, Nigeria

Bachelor of Engineering (B.Eng) in Computer Engineering

Expected Graduation: November, 2025

Relevant Coursework: Computer Architecture & Organization, Microprocessors & Embedded Systems, Programming with Python, C++ & MATLAB, Distributed Systems & Cloud Computing, Engineering Mathematics & Statistics, Software Engineering & Project Management.

#### **EXPERIENCE**

# Junior Network Engineer (Intern)

Gigaxysafe Technologies, Abuja FCT, Nigeria (March 2024 – August 2024)

- Established communication channels through installation and configuration of Voice-over-IP (VoIP) devices.
- Installed, troubleshot and maintained Network Devices to ensure optimal performance.
- Engaged and provided support for clients in best choice Network layout and device selection.
- Performed cable management with appropriate labelling and protection

## TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, HTML, MATLAB.

Frameworks & Tools: PyTorch, Scikit-learn, GitHub, AWS, Keil, Quartus.

Operating Systems: Raspberry Pi OS, Windows.

Other: Visual Studio Code IDE, Arduino IDE, Wireshark, Blender, Proteus, AutoCAD.

#### **PROJECTS**

## NOISE REDUCTION IN URBAN CENTRES WITH CNN-BILSTM-ATTENTION-RESIDUAL (CBAR) MODEL (2025)

- Designed and trained a custom built CBAR model on customized voice data sourced from VoiceBank+DEMAND mixed with real world Nigerian urban centre noises.
- Achieved promising evaluation results with peak Signal-to-Noise ratio of 13.79dB and minimal Mean Square Error of 0.0321
- Drafted IEEE-style research paper for conference submission.

## **DEEPFAKE DETECTION SYSTEM WITH CNN (2024-2025)**

- Designed and trained a Convolutional Neural Network (CNN) using InceptionResNetV1 on FaceForensics++, Celeb-DF V2 and Openforensics datasets for facial forgery detection.
- Achieved 97.15% validation accuracy, applied dropout for regularization.
- Drafted IEEE-style research paper for journal submission.

# SIMPLE Tic-Tac-Toe (X and O) GAME WITH PYTHON (2022-2023)

- Employed Waterfall Model to develop a simple software project with Python.
- Implemented a 3x3 Grid structure Tic-Tac-Toe game with game logic allowing players to take turns.
- Ensured input validation and error handling.

## **CERTIFICATIONS**

- Computer Hardware Basics Cisco (2025)
- AWS Educate: Getting started with Networking Amazon Web Services (2024)
- HCIA Datacom V1 Course Huawei (2023)