

Kelvin Olonade

Lagos State, Nigeria

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EDUCATION

University of Lagos

Bachelor of Science in Electrical and Electronics Engineering

Lagos, Nigeria

Oct 2023 – Oct 2028

Current Level: 300 Level (Third Year) | **CGPA: 4.20/5.00**

Relevant Coursework: Signals and Systems, Microelectronics, Circuit Theory, Engineering Mathematics.

Logic International School

Senior Secondary School Certificate (SSCE)

Ogun State, Nigeria

2013 – 2022

Senior Prefect | Graduated with **8 As and 1 B**.

TECHNICAL SKILLS

Hardware & Embedded: Raspberry Pi 5, Pi Pico W, STM32 (F407), ESP32, Arduino, PIC16F13145, PCB Design.

Simulation & Tools: MATLAB/Simulink, Ansys, COMSOL, PSIM, Proteus, Fusion 360.

Programming: Embedded C/C++, Python, Makefile, Vim, Git/GitHub.

Languages: English (Native), German (Elementary), Yoruba (Limited Working).

EXPERIENCE & LEADERSHIP

Arm Developer Program

Arm Developer

Remote

June 2025 – Present

Engaging with the Arm ecosystem to develop optimized solutions for Cortex-M processors.

Applying best practices in embedded security and efficient architecture utilization.

Freelance

Simulation Engineer

Remote

March 2025 – Present

Providing advanced modeling and simulation services for renewable-energy and power-systems applications.

Developing dynamic system models and control strategies (PID/LQR) to support research and engineering analysis.

Computational Laboratory (Prof. Amenaghawon's Team)

Research Trainee

University of Benin

Nov 2025 – Present

Selected for a 13-week intensive training program on engineering simulations and computation.

Analyzing numerical methods for solving engineering problems using MATLAB.

IEEE Unilag Student Branch

Deputy Industrial Electronics Lead

University of Lagos

Nov 2025 – Present

Spearheading the formation of the new IEEE Industrial Electronics Society chapter.

Organizing technical workshops on circuit design and PCB layout for junior students.

PROJECTS

Sentinel407 - Bare-Metal Alarm System | STM32F407, ARM Assembly, C

Oct 2025 – Present

Developing a ground-up bare-metal alarm system, progressing from HAL to full ARM Assembly implementation.

Achieved 25% power reduction via optimized sleep modes and custom startup/linker scripts.

AI Sentinel | Python, Raspberry Pi 5, YOLOv8

Dec 2025 – Present

Engineering a computer vision surveillance system to detect suspicious movements using YOLOv8 models.

Deployed optimized inference models on Raspberry Pi 5 for real-time edge computing.

UrbanFloodGuard | PIC16F13145, Configurable Logic Blocks (CLB)

Jul 2025

Designed a no-code flood monitoring system using hardware-only logic (CLBs) without traditional software.

Implemented three-tier capacitive water level detection with LED-based visual notification.

CERTIFICATIONS & LICENSES

ARM Cortex M Processors Overview: Arm (Issued Jul 2025).

Embedded Systems using C: EDUCBA (Issued Oct 2025).

Designing and Simulating Physical Models: MathWorks (Issued May 2025).

Modeling and Simulation with Simulink: MathWorks (Issued Dec 2024).

Introduction to the IoT and Embedded Systems: UC Irvine (Issued Dec 2024).