

Samuel Olalekan Olubayo

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PROFILE

M.Sc. Electrical Engineering candidate at Universität Rostock (current average 1.5), DAAD and PTDF scholar, with a foundation in control engineering, electrical drives, and embedded systems. Ten years of engineering delivery, including CTO of a five-engineer team and co-founder of a health-technology venture whose product was defined directly from customer requirements. Early career experience in high-voltage transmission and circuit hardware development. Seeking to combine technical depth with product ownership in industrial drive systems. Available from February 2027.

EDUCATION

M.Sc. Electrical Engineering (Information Technology), Universität Rostock - Rostock, Germany - Oct 2024 to Jan 2027
(completion 31 Jan 2027)

- Current average 1.5 (German scale). Coursework in real-time systems, signal processing, and machine learning.
- Thesis: a digital twin for indoor localisation systems, validated against Bluetooth Channel Sounding measurements on Nordic hardware.

B.Sc. Electrical and Electronics Engineering, Obafemi Awolowo University - Ile-Ife, Nigeria - 2013 to 2018

- Second Class Honours (Upper Division), GPA 4.34 / 5.00. Specialisation in control engineering and embedded systems: PID controller design, system stability analysis, digital and neural network controllers, electrical drive systems, and industrial electrical machines.

PROFESSIONAL EXPERIENCE

Research Assistant, Universität Rostock - Rostock, Germany - Apr 2025 to Present

- Designed an enhanced ranging framework (estimator fusion, confidence estimation, outlier suppression, adaptive smoothing) cutting RMSE 70% against the manufacturer baseline in indoor line-of-sight, from 0.81 m to 0.24 m.
- Benchmarked three estimators across outdoor, indoor, and non-line-of-sight environments, isolating systematic bias and instability at short range.
- Built radio propagation simulations validated against physical measurement campaigns on Nordic hardware.

Founder and Director, Nova University - Lagos, Nigeria - Jun 2020 to Present

- Founded an e-learning and mentorship platform during the COVID-19 pandemic, reaching 4,078 learners across six countries with over 300 daily active users.
- Recruited and coordinated a network of practising mentors, and personally mentored over 600 students in technical skills.

Chief Technology Officer, Edensdigital - Lagos, Nigeria (remote) - Apr 2019 to Jul 2026

- Led a team of five engineers delivering client web platforms on a weekly release cycle, owning architecture decisions, code review, and technical mentorship.
- Directed database architecture across PostgreSQL, MySQL, and MongoDB, and designed third-party API integrations for client systems.

Senior Software Engineer, GrowTally - Remote (UK, US, Africa) - Sep 2021 to Oct 2024

- Architected the core web platform and backend infrastructure for a global social media management firm serving clients across three continents.

Co-Founder and Head of Operations, Livrite Healthcare Services - Lagos, Nigeria - Sep 2018 to Oct 2024

- Co-founded a health-technology venture after analysing an unmet market need: fragmented patient records leaving emergency clinicians treating unidentified patients with no access to history or allergies.
- Owned product definition end to end, translating clinician requirements into a cloud platform binding medical records to biometric identity, retrieving a full record from one fingerprint scan even when the patient is unconscious.
- Ran operations for a team of eight over four years: hiring, roadmap and delivery planning, regulatory requirements, and hospital partnerships.
- Venture wound down in 2024 after failing to raise growth capital against a two-sided adoption model requiring simultaneous hospital and patient uptake.

Chief Technology Officer and Lead Developer, Sky Technology and Innovation Ltd - Ikeja, Lagos, Nigeria - Jan 2021 to Mar 2022

- Led a team of seven engineers, including two interns, building the company web infrastructure and in-house products.
- Shipped an in-house social media marketing platform from concept to production.

Backend Developer Intern, Olotu Tech Hub - Port Harcourt, Nigeria - Jun 2019 to Jul 2020

- Built and maintained server-side services and application programming interfaces (APIs) for client web applications alongside the hub engineering team, covering database design, application logic, and deployment.

High Voltage Electrical Maintenance Intern, Transmission Company of Nigeria - Ayede Sub-Station, Nigeria - Oct 2017 to Apr 2018

- Ran daily routine checks on relays, high-voltage circuit breakers, transformers, and other grid equipment at a national transmission sub-station.
- Worked alongside senior engineers on maintenance testing and repair of faulty high-voltage equipment.

Instructor, Ultra Brains Technology - Nigeria - May 2014 to Oct 2016

- Taught microcontroller programming and hardware module integration to engineering students and hobbyists.

Lead Circuit Engineer, Pubculture - Ile-Ife, Nigeria - May 2015 to Aug 2016

- Led end-to-end hardware development for a startup embedding power electronics (inverters, FM radios, pump controllers) inside hand-carved Yoruba cultural artefacts and Adire textiles.
- Resolved thermal dissipation within sealed wooden enclosures and preserved antenna signal transparency through dense sculpture material, working with artists to merge engineering with heritage design.

SKILLS

Control and drives: PID controller design, system stability analysis, digital and neural network controllers, electrical drive systems, electrical machines, power electronics

Embedded and firmware: C, C++, Python, STM32, Zephyr, FreeRTOS, real-time operating systems, Linux PREEMPT_RT, hardware development and validation

Communications and analysis: Radio frequency (RF) propagation, wireless localisation, Bluetooth Low Energy (BLE), MATLAB, TensorFlow, statistical analysis, simulation

Product and delivery: Product definition, customer requirements analysis, market analysis, roadmap planning, team leadership, operations management

LANGUAGES AND INTERNATIONAL EXPERIENCE

Languages: English (fluent), German (B1, examination October 2026), Yoruba (native)

International: Resident and studying in Germany since 2024. Client delivery across the United States, United Kingdom, and Africa; platform users in six countries.

SCHOLARSHIPS AND AWARDS

- DAAD Scholarship (Master's scholarship and research grant), German Academic Exchange Service.
- PTDF Postgraduate and Undergraduate Scholarships (Nigerian Petroleum Technology Development Fund).
- Young Innovator Impact Award; United Nations Hult Prize Challenge, Obafemi Awolowo University.