

Emmanuel Osalotioman Osazuwa

Pure and Applied Mathematics Undergraduate • University of Benin

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Education

B.Sc. Pure and Applied Mathematics

2023 – Present (Expected 2026)

University of Benin, Nigeria

Relevant Coursework: Linear Algebra, Numerical Analysis, Mathematical Modelling; Classical Mechanics, Quantum Mechanics, Fluid Dynamics; Number Theory, Mathematical Methods

Summary

Mathematics undergraduate with interests in formal methods, competitive programming, quantum computing, and algorithm design. Experienced in building production-ready software and contributing to open-source projects that apply mathematical ideas to real-world systems.

Skills

Programming: Python, C++, JavaScript, TypeScript

Frameworks: FastAPI, Next.js, Laravel, Express

Databases: PostgreSQL, MySQL, MongoDB

DevOps: Docker, GitHub Actions, CI/CD, Nginx

Tools: Git, GitHub, L^AT_EX

Languages: English (Proficient), French (Basic)

Work Experience

FullStack / DevOps Engineer Intern, Directorate of Research and Innovation (DRID) (Hybrid)

Jan 2026 – Present

- Migrated projects from manual deployment to automated CI/CD pipelines using GitHub Actions, building Docker images and deploying updates to VPS environments.
- Configured reverse proxy infrastructure and applied security hardening practices for hosted services.
- Standardized development workflows across teams (branching strategy, pull request reviews, issue tracking, contributing guidelines, open-source licensing).
- Developed backend and frontend components across multiple services, including authentication, email, storage, and service dashboards within a microservices architecture.
- Coordinated contributors across projects to improve task visibility, balance workload, and maintain steady development progress.

Backend / DevOps Engineer, Zkyte Technologies (Remote, Full-time)

Feb 2025 – Nov 2025

- Built and maintained CI/CD pipelines for automated testing, linting, and deployment.
- Containerized backend services using Docker to ensure reproducible development and deployment.
- Collaborated with frontend and backend teams to design and integrate RESTful APIs.
- Conducted code reviews and enforced best practices for maintainable and testable systems.
- Wrote technical documentation for APIs, data models, and service architecture.
- Improved logging, error handling, and security practices for production reliability.

Technologies: Python, FastAPI, Docker, CI/CD, GitHub, PHP, Next.js

Open Source Contributions

The Equational Theories Project

Collaborative research project mapping relationships between equational theories of magmas.

Contributions: https://github.com/teorth/equational_theories/issues?q=author%3Aosalotioman+OR+reviewed-by%3Aosalotioman+

Qiskit (qiskit, qiskit-ibm-runtime, documentation)

Contributions: <https://github.com/Qiskit/documentation/issues/2067>

Erdős Problems Database

Contributed to a community-maintained database of open problems in mathematics.

Contributions: <https://github.com/teorth/erdosproblems/issues?q=author%3Aosalotioman+OR+reviewed-by%3Aosalotioman+>

The Prime Number Theorem Project

Actively contributing to the formalization of the prime number theorem and related theorems in Analytic Number Theory.

Contributions: <https://github.com/AlexKontorovich/PrimeNumberTheoremAnd/issues?q=author%3Aosalotioman+OR+reviewed-by%3Aosalotioman+>

Personal Projects

NAMSNLIB

Library indexing and collaboration platform developed for the Nigerian Association of Mathematics Students (UNIBEN).

Concept Document: <https://drive.google.com/file/d/1zksH4G1QZOLm8H1YAhO4uFHtRKz7rr7-/view?usp=sharing>

Main Site: <https://namsnlib.vercel.app>

Technologies: PHP (Slim 4), PostgreSQL, Next.js, Docker

NCPC

Platform for forming and managing teams for the Nigerian Collegiate Programming Contest (NCPC).

<https://ncpc.vercel.app>

Technologies: PHP, MySQL, Next.js

Competitions

IEEEXtreme Programming Competition

Global 24-hour programming competition organized by IEEE.

Certificate (2025): https://drive.google.com/file/d/1xBX_HGvMLqTtqXX8t4zgHWnBYXO-2hrE/view?usp=sharing

International Youth Math Challenge (IYMC)

An educational mathematics competition open to students worldwide.

Certificate (2024): https://drive.google.com/file/d/1nw_jtIXUPhJMEN35YahIQQ9zsFy-z9wo/view?usp=sharing

Certificate (2025): https://drive.google.com/file/d/1-LOnxcTuQdkL4J4YXGdhiIsB5Dt3P3_j/view?usp=sharing

Certification

Qiskit Global Summer School 2024: The Path to Utility (IBM Quantum)

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