

BRIAN MOKUA OYARO

Cybersecurity & Software Engineer

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PROFESSIONAL SUMMARY

Cybersecurity focused Software Engineer with hands-on experience in SIEM monitoring, threat detection, endpoint security, vulnerability assessments, and secure software development. Experienced in building and operating cybersecurity homelabs using Wazuh, Kali Linux, Windows, and Linux environment.

Skilled in SOC analysis, log investigation, network security, incident response fundamentals, secure backend engineering, Linux system administration and API security.

PROFESSIONAL EXPERIENCE

Freelance Software Engineer - Developed a modern e-commerce website using React for the frontend, and SpringBoot for the backend - Implemented secure in-app payment methods - Implemented secure coding standards and hardened the application to prevent security breaches, and ensured that zero security incidents should occur in production.	04/2026 – 05/2026 remote
Software Developer Intern - Revamped the NCTTCA website to enhance performance, usability, and reliability. - Collaborated with ICT and other departments to translate business requirements into technical solutions. - Developed, tested, and deployed web application features using SDLC best practices. - Integrated systems with databases, APIs, and third-party platforms. - Applied secure coding standards and supported production troubleshooting. - Maintained technical documentation and version-controlled codebases.	01/2026 – 04/2026 Mombasa, Kenya
Part-time Software Engineer, Bluewaves Plumbers - Developed a modern web application using React & JavaScript, resulting in a 20% increase in company reach. - Improved product engagement by 15% through development of new features and UI/UX optimizations. - Implemented secure coding standards and application hardening, achieving zero security incidents in production. - Optimized frontend and backend performance, reducing page load times by 40%.Applied responsive design best practices, improving mobile user retention by 25%.	08/2025 – Present remote
Software Engineer Intern, Digital Empowerment Network - Designed and optimized backend services using Node.js microservices. - Integrated APIs and improved response times by 25%. - Containerized applications using Docker and supported cloud deployments. - Enhanced system monitoring, achieving 99.9% availability.	08/2024 – 09/2024 Pakistan (remote)

EDUCATION

Software Engineering, <i>ALX - Africa</i> ↗	06/2023 – 07/2024
BSc. Mathematics & Computer Science, <i>Kenyatta University</i> ↗	08/2019 – 12/2023

TECHNICAL SKILLS

Cybersecurity SIEM Monitoring, SOC Analysis, Threat Detection, Incidence Response, Log Analysis, Vulnerability Analysis, Penetration Testing, OSINT, Secure Coding	Security Tools Wazuh, Nessus, Wireshark, snort, OSSEC, Autopsy, volatility, Suricata
Languages and Frameworks Python, Java, JavaScript, C, HTML, Spring Boot, Spring Ecosystem, Flask, Express.js, React, TailwindCSS	Databases MySQL, MongoDB, PostgreSQL, Redis, SQLAlchemy
DevOps & Cloud Docker, Nginx, Supervisor, Github actions CI/CD basics	

Certifications

Database Developer, <i>DBAcademy</i>	02/2026 – Present
Cybersecurity Analysis, <i>Cybershujaa</i>	01/2024 – 04/2024

FEATURED PROJECTS

Cybersecurity Homelab & SIEM Monitoring Environment Built and maintained a practical cybersecurity lab environment for SOC analysis, threat detection, vulnerability testing, and endpoint monitoring.	04/2026 – Present
Key Activities • Deployed and configured Wazuh SIEM for centralised log collection and monitoring. • Integrated windows and Linux agents as visibility endpoints. • Configured alert monitoring, Incidence response, and security event analysis. • Performed vulnerability testing using metasploitable. • Conducted penetration testing simulations using Red Atomic, Kali Linux and metasploitable 2 • Monitored authentication events, system changes, and suspicious activities.	
Technologies Wazuh, Kali Linux, Metasploitable 2, Linux, Windows 11, Virtualbox.	
Postgraduate Supervision & Progress Management System (PSPMS) Comprehensive web-based platform for managing postgraduate supervision, academic progress tracking, and institutional reporting.	02/2026 – 03/2026
Key Contributions & Features • Designed a multi-role system supporting Students, Supervisors, and Administrators. • Implemented structured meeting logs, milestone tracking, task assignment, and deliverable submissions. • Developed automated progress reporting with printable institutional reports.	

- Built supervisor dashboards for performance monitoring and early identification of at-risk students.
- Integrated analytics module for system-wide reporting and oversight.

Tech Stack: Flask, SQLAlchemy, MySQL, Tailwind CSS

NCTTCA Website, *A comprehensive Flask-based content management system for the Northern Corridor Transit and Transport Co-ordination Authority (NCTTCA).*

01/2026 – 03/2026

Custom-built CMS for the Northern Corridor Transit and Transport Co-ordination Authority (NCTTCA).

Designed and developed a full-featured content management system enabling administrators to manage institutional content while providing public access to news, tenders, regulatory documents, and events.

Key Achievements

- Consolidated organizational content into a single scalable platform.
- Implemented bilingual support (English/French) with automated translation integration.
- Built newsletter system with double opt-in and tokenized unsubscribe mechanisms.
- Designed mobile-responsive interface compliant with WCAG 2.1 AA accessibility standards.
- Developed modular architecture to support long-term scalability.

Core Functionalities

- Full CRUD content management (News, Events, Gallery, Vacancies, Tenders, Documents)
- Role-based access control (Super Admin/Admin roles)
- Secure file upload validation and password hashing
- CSRF protection and SQL injection prevention
- Subscription management with history tracking and email automation
- Administrative dashboard with usage analytics

Tech Stack: Flask, SQLAlchemy, TailwindCSS, LibreTranslate, PostgreSQL

Telehealth, *Telepsychology Platform*

Secure telemedicine platform enabling virtual therapy sessions and appointment management.

- Integrated real-time video communication using WebRTC + self-hosted LiveKit.
- Built secure authentication and encrypted communication workflows.
- Designed appointment scheduling and therapist-patient matching features.
- Architected backend to support compliance-focused communication standards.

Tech Stack: Flask, React, WebRTC, LiveKit

E-Vote System, *(Secure Online Voting)*

End-to-end encrypted online voting platform designed for transparency and integrity.

- Implemented advanced authentication and cryptographic vote encryption.
- Developed real-time result streaming with audit trail tracking.
- Ensured data integrity and tamper-resistant result aggregation.
- Designed scalable architecture for secure electoral processes.

Tech Stack

Flask, Redis, MongoDB, Cryptography

References

Bernard Chunga, *CEO*, Bluewaves Plumbing
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