

Emmanuel Ngugi

Software Developer

Contacts Nairobi, Kenya <https://www.linkedin.com/in/emmanuel-ngugi/>
emmanuelngugi8@outlook.com <https://cypher-me.github.io>

Profile I am a motivated software developer with a BSc in Information Security and Forensics and strong teamwork and problem-solving skills. Experienced in building secure, scalable web, mobile, and desktop applications, complemented by knowledge in data science, cybersecurity, and network administration. Passionate about creating innovative, high-performance solutions that integrate security and data protection by design

Projects

Web Automation Framework

<https://github.com/cypher-me/web-automation-playground>

Built a Python/Selenium test automation framework with scalable architecture, cross-browser support, and detailed reporting to ensure reliable and efficient software testing.

Chat Web Application

<https://github.com/cypher-me/simple-chat-webapp>

A real-time chat application built with Spring Boot WebSocket backend and ReactJS frontend, enabling instant messaging between multiple users.

Advanced IDR System

<https://github.com/cypher-me/advanced-IDR-project>

Developed a full-stack IDS featuring a Python-based detection engine (Scapy, YARA, Regex), Flask backend, and React.js frontend for real-time attack visualization. Integrated PostgreSQL for secure logging, JWT-based authentication, and an interactive dashboard with live network traffic analysis, log monitoring, and threat statistics.

Experience

February 2025 –
December 2025

Backend Developer Intern, J-Tech Solutions

Developed and maintained server-side logic, built RESTful APIs, integrated databases for user authentication, job postings, and applications, and optimized data queries to ensure fast and secure transactions on the job search platform. Python, Java, C#

January 2023 -
Present

Freelance Software Developer

As a freelance software developer, I designed and built custom web, mobile, and desktop applications with a strong focus on backend development using ExpressJS and NestJS. I developed and optimized APIs, integrated PostgreSQL databases through Prisma ORM, and implemented Redis for caching and real-time performance improvements. My work emphasized scalability, security, and efficiency, delivering reliable solutions tailored to each client's business needs.

Education

- July 2022 – January 2023 **Zalego Academy, Certificate in Cybersecurity**
Professional certification in cybersecurity fundamentals, with practical training in network security, vulnerability assessment, and incident response protocols.
- January 2023 - Present **KCA University, Bachelor of Science in Information Security and Forensics**
Focused on cybersecurity, digital forensics, risk management, and secure systems design, with practical training in protecting and investigating digital assets
- August 2024- August 2025 **DataCamp, Data Scientist certification**
<https://www.datacamp.com/certificate/DS0020255342170>
Comprehensive training in Python for data manipulation, visualization, SQL, machine learning, and version control. Gained hands-on experience through interactive exercises and real-world projects in exploratory data analysis, predictive modeling, and communication of insights
- September 2025 – March 2026 (Ongoing) **CyberWarfare Labs, Red Team Analyst [CRTA]**
Hands-on offensive security certification focused on real-world red team operations. Demonstrates practical skills in reconnaissance, exploitation, privilege escalation, Active Directory attacks, lateral movement, persistence, and reporting. Emphasizes attacker mindset, tradecraft, and adversary simulation against enterprise environments.
- January 2026 – March 2026 (Ongoing) **AWS Re/Start, Aws Cloud Practitioner Certificate**
This certification validates AWS Cloud expertise, including hands-on knowledge of core services like EC2, S3, IAM, RDS, Lambda, and VPC. It demonstrates proficiency in cloud concepts such as IaaS/PaaS/SaaS, elasticity, scalability, and high availability. The credential also covers essential cloud security practices including IAM policies, security groups, encryption, and the shared responsibility model, along with cloud economics like TCO analysis, pricing models, and cost management tools.

Certifications

Penetration Testing Professional Certificate (Cybrary)
Junior Cybersecurity Analyst Career Path Exam (Cisco)
Deep Reinforcement Learning – Hugging Face (ongoing)
Cyber Threat Management (Cisco)
Anaconda Python for Data Science Professional Certificate
Network Automation Professional Certificate (Arista Networks)
Microsoft Azure AI Essentials Professional Certificate (Microsoft)

Skills

Languages

Python, Java, JavaScript, Go, TypeScript, C, C++, C#, Ruby, Bash, PowerShell, SQL, PL/SQL, T-SQL

Soft Skills

Problem-solving, Communication, Teamwork, Adaptability, Time management, Critical thinking, Attention to detail

Technical Skills

Algorithms & Data Structures, Version Control (Git), Testing/Debugging, Cloud Platforms (AWS, Azure), Web Automation (Selenium), Networking Protocols (TCP/IP, DNS), Network Security, Routing/Switching, Firewalls, VPN Configuration, Agile Methodologies, CI/CD Pipelines, Database Design, Backup & Recovery, Performance Tuning, Replication and Security Management, YARA, Regex, Penetration Testing,

Vulnerability Assessment, IDS/IPS, Data Protection, Cryptography, JWT Authentication, PostgreSQL, MySQL, Pandas, NumPy, Matplotlib, Data Visualization, API Development, RESTful Services, Linux, Windows, Secure Coding Practices, Web Application Security, Mobile Application Development, Desktop Application Development, Log Monitoring, System Administration, Cloud Computing Basics, Docker, Virtualization