Curriculum Vitae (CV)

Moffat Gichure Maina
Nairobi, Kenya
Phone: 0797 949 574
Email: moffatgichuremaina@gmail.com
Portfolio: https://lecturerkarare.github.io/MoffatPortfolio
GitHub: https://github.com/lecturerkarare
LinkedIn: https://linkedin.com/in/moffat-maina-230426225
TikTok: https://www.tiktok.com/@moffatkarare

PROFESSIONAL SUMMARY

Results-driven Cybersecurity Specialist, DevSecOps Engineer, IT Support Technician, and Full-Stack Software Engineer with over 3 years of professional experience in cybersecurity operations, enterprise IT support, cloud engineering, and secure software development. Adept at conducting mobile and API penetration testing, implementing advanced security controls, automating CI/CD pipelines, and optimizing system reliability in production environments. Proficient in designing secure backend architectures, improving authentication flows, integrating payment APIs, and supporting high-availability infrastructures across cloud and hybrid environments. Experienced in security modernization and data governance tools, including Privacera for policy-based access management, Bron IAM for identity and entitlement workflows, and cloud deployment platforms such as Render and Railway.app.

Demonstrated success delivering end-to-end solutions by combining strong analytical skills with hands-on expertise in Linux systems, networking (Cisco, Mikrotik), cloud platforms (AWS), and modern development frameworks. Known for structured problem-solving, attention to detail, and the ability to collaborate effectively with technical and non-technical stakeholders.

Highly committed to building secure, scalable, and efficient systems that align with business and compliance requirements while strengthening organizational resilience against modern threats.

CORE COMPETENCIES & SKILLS

Cybersecurity & Penetration Testing
- Mobile penetration testing (Android, APIs, OWASP MASVS)
- API security reviews, SAST/DAST evaluations & vulnerability assessments
- Web application penetration testing
- Data encryption, SSL/TLS, VPNs, ACLs, firewall configuration
- Packet and traffic analysis (Wireshark, tcpdump)
- Nmap scanning, exploitation research & reporting
- Hands-on with Privacera (data governance, access control), Bron IAM, and identity-security workflows

IT Support & Infrastructure
- Hardware, software, and network troubleshooting
- LAN/WAN setup, routers, switches & Mikrotik configuration
- VPN setup, firewall rules, ACLs & endpoint security
- Cloud backups, email systems & OS patching

- Remote support (AnyDesk, TeamViewer)
- User training, IT documentation & system onboarding

Software Engineering
- Languages: Python, Java, JavaScript, TypeScript, Kotlin
- Frameworks: Django, React, Angular, Node.js, Astro
- Payment API integration (M-Pesa Daraja, PayPal, Stripe)
- Android application development & app security
- Database design (MySQL, MongoDB, SQLite)
- REST API development & secure backend engineering

Cloud, Networking & DevSecOps
- Deployment and Hosting: Render, Railway.app, Vercel, Netlify
- Cloud Platforms: AWS Serverless, AWS S3, AWS CDK
- Docker, virtualization & Linux administration
- Cisco Packet Tracer, Mikrotik RouterOS
- CI/CD pipelines, Git automation & secure DevOps practices
- Secrets management, configuration hardening & automated security checks

PROFESSIONAL EXPERIENCE

Freelance Developer & Security Consultant | Independent Contractor (Fiverr & Upwork) | 2020 – Present | Nairobi & Remote

- Developed secure full-stack applications for SMEs, startups, and private clients using modern frameworks and best coding practices.
- Conducted mobile app penetration testing covering insecure storage, broken authentication, certificate pinning flaws, and session hijacking risks.
- Performed API penetration tests to identify broken authorization, weak tokens, insecure endpoints, and injection vulnerabilities.
- Designed and deployed a Community Wi-Fi Billing System using Mikrotik RouterOS, voucher authentication, analytics dashboard, bandwidth shaping, and automated user management.
- Integrated M-Pesa Daraja, PayPal, Stripe, and mobile money APIs into various client applications and billing systems.
- Configured routers, switches, VLANs, firewalls, NAT, and VPN tunnels for secure office setups and remote access.
- Provided long-term IT support including backups, cloud storage, troubleshooting, and environment hardening.
- Mentored students and junior developers on cybersecurity, secure coding, Git workflow, cloud technologies, and industry best practices.

DevSecOps Project – US Client Engagement (18th May to 15th Sep ,2024) | Part-time

Role: DevSecOps Engineer (Remote Contract)
Client: US-based Software & Cloud Services Firm

Project Summary:
Led the design and implementation of secure CI/CD pipelines and cloud infrastructure for a US client building SaaS applications, ensuring reliability, automation, and security compliance across production and staging environments.

Key Contributions:

- Designed and deployed CI/CD pipelines using GitHub Actions to automate build, test, security scanning, and deployment workflows.
- Integrated DevSecOps security controls, including SAST/DAST scanners, dependency checks, and container vulnerability assessments before deployment.
- Containerized backend services with Docker and optimized services for microservice-based deployment on Render and Railway.app.
- Configured AWS S3, Lambda, and CloudWatch for serverless workloads, logs, storage, and automated monitoring.
- Implemented secrets management and IAM security using Bron and Privacera policy-based access control, ensuring strict data governance and least-privilege access.
- Built automated rollback strategies and deployment safeguards, reducing deployment failures by over 30%.
- Collaborated with cross-functional engineering teams in the US to ensure high availability, compliance, and secured release cycles.
- Developed Infrastructure-as-Code modules using AWS CDK, enabling reproducible and version-controlled infrastructure environments.
- Conducted continuous monitoring, audit reviews, and remediation for cloud services.

Outcome & Impact:
Delivered a fully automated, secure, and scalable release pipeline, improved application uptime, and significantly strengthened the client's security posture, helping them meet internal compliance, reliability, and deployment efficiency requirements.

Liberty Life Juja | IT Support Specialist | Apr 2024 – Jan 2025 | Part-time | Remote & On-site

- Delivered technical support across multiple business operations, resolving Windows, Linux, email, and network issues.
- Configured secure dashboards, websites, and backend systems to improve operational efficiency.
- Integrated M-Pesa Daraja API for automated billing, subscriptions, and system payments.
- Provided remote support for clients internationally, handling router setups, network failures, and software issues.

- Implemented firewall rules, access controls, endpoint security, and local server protection measures.
- Managed cloud backups, user accounts, password resets, and business email systems.
- Developed IT documentation, user manuals, and training guides for staff onboarding.

Palo Alto Networks — Cybersecurity Research Contributor (Remote) | May 2024 – August 2024

- Conducted vulnerability research and security analysis on emerging cyber threats, focusing on malware behavior, endpoint compromise techniques, and network intrusion patterns.
- Collaborated with senior researchers to analyze threat intelligence feeds, evaluate attack vectors, and classify indicators of compromise (IOCs) for integration into Palo Alto Networks threat databases.
- Assisted in testing and validating security detection rules used within Cortex XDR and WildFire platforms to improve threat prevention accuracy.
- Performed static and dynamic analysis of suspicious files, URLs, and mobile applications to identify vulnerabilities and security misconfigurations.
- Contributed to documentation and reporting of threat findings, including drafting summaries for internal research teams and developers.
- Participated in refining automated detection workflows, ensuring consistent classification of malicious activity.
- Improved personal research workflows through scripting (Python) and automation of repetitive analysis tasks.
- Gained hands-on experience working with enterprise-grade cybersecurity tools, SIEM data, sandboxing environments, and threat intelligence platforms.

Meliora Software Company | Software Engineer Intern | May 2023 – Dec 2023 | Nairobi

- Developed secure full-stack web and mobile applications using Java, React, Angular, and MySQL, ensuring scalability, clean architecture, and maintainable codebases.

- Designed and implemented REST APIs with strong authentication (JWT/OAuth), encrypted data transmission, input validation, and structured error-handling to guarantee reliability and compliance with security best practices.

- Collaborated closely with UI/UX teams using Figma and Canva, transforming design prototypes into responsive user interfaces and ensuring pixel-perfect, user-friendly frontend implementation across devices.

- Built backend services to support M-Pesa Daraja API integration for automated payments (STK Push, callbacks, receipts) and implemented Bulk SMS gateways for customer notifications, OTP verification, marketing messages, and billing alerts.

- Worked with multiple regional clients—including businesses in Kenya, Burundi, and Ghana—ensuring proper system setup, handling API downtime, managing server outages, and resolving issues like failed callbacks and latency during high traffic periods.

- Designed payment and messaging modules used by vendors selling products via platforms connected to Sarit Centre, improving their customer communication workflows and transaction efficiency.

- Participated in Agile development sprints, collaborating with developers, product managers, and designers to deliver production-ready features within strict timelines.

- Strengthened software security by implementing session management, hashing (BCrypt/SHA), authentication workflows, SQL injection prevention, and secure storage of sensitive information.

- Supported deployment processes, including staging environment setup, database optimization, API monitoring, and performance tuning for stable production releases.

- Created technical documentation, flowcharts, API references, and user guides to streamline team collaboration and ensure smooth transitions between development stages.

EDUCATION

Laikipia University | Bachelor of Science in Computer Science | 2019 – 2023
Grade: Lower Second Class Honours (59 points)

- Student Delegate (ICT & Innovation), representing students in ICT forums and departmental meetings.
- Participated in innovation projects including IoT Smart Irrigation System, cloud migration labs, and secure automation prototypes.
- Worked with Huawei ICT Academy and Cisco Networking Academy on hands-on labs and network hardware projects.
- Led software engineering and cybersecurity project teams throughout academic coursework.

Mukurwe Wa Nyagathanga Secondary School | 2015 – 2018 (KCSE – B (Minus)

- Student leadership roles: Class Representative & ICT Club Coordinator.
- Participated in innovation & science congress competitions (IT category).
- Led peer study groups for computer studies and mathematics.

Gathukeini Primary School | 2006 – 2014 (KCPE – 313 Marks)

- School prefect, head of environmental activities, and club leader.
- Participated in innovation and creativity competitions.

CERTIFICATIONS

- Google IT Support Professional Certificate – 2024
- Cisco Certified Network Associate (CCNA) – 2023
- Huawei Certified ICT Associate (Networking & Cloud) – 2023
- Hackviser Certified Web Pentester – 2024
- Android App Development & Security Certification – 2023
- Java Spring Framework Certification – 2023
- AWS S3 Basics – Coursera – 2025
- Google Foundations of Cybersecurity – 2025

MAJOR PROJECTS

1. Bulk WhatsApp Web Sender

Overview:
A JavaScript-based automation tool that enables users to send bulk text and media messages via WhatsApp Web. It automates the browser session, reducing repetitive manual tasks and increasing communication efficiency for businesses.
Key Features:
- Automated sending of text and media messages
- CSV/Excel bulk number import support
- Web session handling using WhatsApp Web
- Error handling and retry logic
- Real-time status logs for message delivery

Tech Stack: JavaScript, Node.js, Puppeteer
GitHub: https://github.com/lecturerkarare/Bulk-WhatsappWeb-Sender
Impact: Helped businesses automate communication, saving hours of manual messaging.

2. SaaS Billing System

Overview:
A full billing and subscription management system for SaaS platforms with automated payments and real-time tracking.
Key Features:
- User authentication and role-based access
- Automated invoicing and email notifications
- Payment integration (M-Pesa Daraja, Stripe, PayPal)
- Subscription plans, usage limits & account management
- Admin dashboard with advanced analytics

Tech Stack: Python, Django, MySQL, JavaScript
GitHub: https://github.com/lecturerkarare/saas-billing-system
Impact: Enabled small businesses to automate billing, reducing unpaid invoices and administrative overhead.

3. ImageCipher-App

Overview:
A Kotlin desktop application focused on secure image encryption/decryption using modern cryptographic techniques.
Key Features:
- AES-based encryption and decryption
- Secure file processing
- User-friendly interface built with JetBrains Compose
- Supports image preview and encrypted output handling

Tech Stack: Kotlin, Compose for Desktop
GitHub: https://github.com/lecturerkarare/ImageCipher-App
Impact: Enhanced file security awareness for students and users working with sensitive media assets.

4. Basic Network Scanner

Overview:
A Python-based command-line network scanner used to detect devices, open ports, and active hosts on a network.
Key Features:
- ARP scanning for host discovery
- Port scanning (common ports)
- Network mapping output
- Extendable modules for deeper scanning

Tech Stack: Python, Scapy, Sockets
GitHub: https://github.com/lecturerkarare/Basic-network-scanner
Impact: Assisted in learning cybersecurity fundamentals and network discovery techniques.

5. IT-Requests System

Overview:
A ticketing system for managing IT support requests with admin tools and workflow automation.
Key Features:
- User request submission with category tagging
- Admin dashboard for tracking and resolving tickets
- SQLite database with logs and audit trail
- Flash messages & validation for better UX
- Status updates: New, In Progress, Closed

Tech Stack: Python, Flask, SQLite, HTML/CSS
GitHub: https://github.com/lecturerkarare/IT-Requests
Impact: Improved IT support turnaround time and documentation accuracy.

6. AWS Serverless App Using CDK

Overview:
An Infrastructure-as-Code (IaC) project deploying a serverless backend on AWS.
Key Features:
- Lambda functions for backend computation
- API Gateway integration
- DynamoDB for NoSQL data storage
- S3 hosting and asset storage
- AWS CDK for automated deployments

Tech Stack: TypeScript, AWS CDK, Lambda, DynamoDB, S3
GitHub: https://github.com/lecturerkarare/aws-serverless-using-aws-cdk
Impact: Demonstrated capability to architect cloud-native and cost-efficient solutions.

7. Personal Portfolio Website

Overview:
A developer portfolio showcasing skills, CV, projects, and achievements in a modern UI.
Key Features:
- High-performance static website
- Optimized lighthouse score
- Responsive UI for desktop/mobile
- Projects dynamically rendered

Tech Stack: Astro, HTML/CSS, JavaScript
GitHub: https://github.com/lecturerkarare/MoffatPortfolio
Impact: Professional online presence improving client trust and visibility.

8. Project Management System (MongoDB + React)

Overview:

A full-stack project/task management tool for teams, built with modern MERN architecture.

Key Features:
- Project creation & assignment
- Task tracking & deadlines
- User authentication and authorization
- Activity logs and real-time updates
- Responsive admin dashboard

Tech Stack: React, Node.js, Express, MongoDB
GitHub: https://github.com/lecturerkarare/ProjectManagement-mongodb-react-
Impact: Supports multi-user team collaboration and improves productivity.

9. Kijabe Alumni Association Web App

Overview:
A fully functional alumni networking platform designed to connect former students, manage membership, and support association activities.

Key Features:
- Secure user registration & authentication
- Alumni directory with searchable profiles
- Events portal & announcements
- Admin dashboard for content management
- Community updates, blogs & donations module
- Responsive mobile-first design

Tech Stack: JavaScript, HTML/CSS, Node.js, Express, MySQL
GitHub: https://github.com/lecturerkarare/kijabe
Impact: Strengthened alumni engagement and improved communication between members.

STRENGTHS

- Strong analytical and diagnostic ability
- Excellent communication and teamwork
- Leadership and decision-making
- High adaptability and continuous learning
- Commitment to secure, high-quality work

REFERENCES

Available upon request.