ALEX MURIMI KAMAU

Software Engineering Intern

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PROFESSIONAL SUMMARY

Dedicated and results-oriented Computer Scientist with a robust foundation in software development, full-stack development, AI-driven cybersecurity,Recognized in Mozilla's Responsible Computing Challenge Kisii University (Top 5, 2025) for ethical AI innovation. Proficient in Python, React, Flask, and TensorFlow, I excel in building secure, scalable applications to address real-world challenges. Committed to continuous learning and adapting to new challenges and emerging technologies. Recognized for exceptional communication and collaboration skills, a natural aptitude for learning, and the ability to quickly adapt to new challenges and emerging technologies.

PROFESSIONAL EXPERIENCE

08/2024 – 02/2025
Kisii, Kenya

Network Technician
Gicatech Enterprise Solutions

- Spearheaded network installation and troubleshooting processes, ensuring seamless connectivity and functionality across various environments.
- Diagnosed and resolved intricate network connectivity issues, significantly enhancing system reliability and minimizing downtime.
- Provided technical guidance to clients and team members, fostering understanding of network systems and boosting efficiency.

05/2024 – 08/2024
Kikuyu, Kenya

Computer Science Attache'
Secunets Technologies Ltd

- Played a pivotal role in the **National Research Fund Kenya Hackathon 2024**, offering technical support that ensured the event's resounding success.
- Designed and developed a prototype of a sophisticated **Password Manager Application**, translating advanced theoretical knowledge into practical cybersecurity and software development solutions.
- Executed comprehensive vulnerability assessments, enforced robust security protocols, and conceptualized secure network architectures to mitigate risks effectively.
- Actively contributed to the **Sintel GSMA_SAS-UP Security Audit**, showcasing in-depth expertise in cybersecurity and excelling in high-pressure scenarios.

EDUCATION

Awaiting Graduation, December 2025
Kisii, Kenya

BSc. in Computer Science
Kisii University

- Engaged in an intensive curriculum covering Data Structures, Algorithms, Database Systems, Software Engineering, and Network Programming.
- Developed strong competencies in analytical thinking, advanced programming methodologies, and real-world problem-solving applications.
- Actively participated in university-led tech initiatives and projects to enrich practical knowledge.
- Participated in Mozilla Foundation's Responsible Computing Challenge at Kisii University, focusing on developing ethical and responsible Artificially Intelligent Systems.

SKILLS

Programming Languages
Python, Java, JavaScript, SQL, Dart, C

Frameworks
Node.js, Flutter, Flask, Streamlit, Next.js, React.js

DevOps
API, Version Control Systems, Containerization and Orchestration, Collaboration and Communication, Problem-solving and troubleshooting

Interpersonal skills

Database Management Systems
MySQL, Firebase, MongoDB, Postgresql

Data Communication and Networks
Network Programming, Wireless technologies, IP Addressing, Networking protocols

API Design and Implementation

Great Problem-solving skills

Fullstack Web Development
Javascript, CSS, Html, PHP

Software Project Management
SDLC, Risk Management, Scrum, Team Management and Leadership

Excellent Communication Skills

ACHIEVEMENTS

2023 – 04/2025
Kisii University, Kenya

Mozilla Responsible Computing Challenge
Ethical Artificial Intelligence
- Ranked Top 5 for *Unified Threat Detection and Response System*, advancing ethical AI in cybersecurity.

07/2024
Thika, Kenya

Sintel GSMA_SAS-UP Security Audit
Actively contributed to the **Sintel GSMA_SAS-UP Security Audit**, showcasing in-depth expertise in cybersecurity and excelling in high-pressure scenarios.

06/2024
Nairobi, Kenya

National Research Fund Kenya Hackathon 2024
Played a pivotal role in the **National Research Fund Kenya Hackathon 2024**, offering technical support that ensured the event's resounding success.

2024
Kisii University, Kenya

Blockchain Bootcamp
Internet Computer Protocol
Participated in a workshop on blockchain technology at Kisii University, organized by Kushite East Africa ICP Hub. Explored Web3 innovations using Internet Computer Protocol (ICP).

PROJECTS

Ongoing

https://github.com/Alex-Muhscience/UTDRS-Capstone-Project.git ⧉
Unified Threat Detection and Response System (UTDRS) | Collaborative Project with a Teammate
- Developed a full-stack cybersecurity web application using Python, Flask, React, MongoDB, and TensorFlow to protect Kenyan SMEs from threats (phishing, ransomware, DDoS).
- Implemented neural networks (FNN, CNN, RNN) for real-time threat detection, achieving 97% phishing detection accuracy and 98% DDoS detection rate.
- Extended functionality beyond network security with endpoint detection and response (EDR), secure file encryption, and application vulnerability scanning.
- Added features like automated response actions (e.g., blocking malicious IPs), customizable notifications (email, SMS, in-app), and integrations with Microsoft Defender and AWS Security Hub.
- Impact: Recognized in Mozilla's Responsible Computing Challenge (Top 5, 2024); aims to secure 1,000+ SMEs by 2026, reducing cyberattack losses by 50%.

06/2024	**https://github.com/Alex-Muhscience/Pass-KeyGen** ⬈

KeyGen – Password Generator & Vault
- Built a cross-platform password manager using Flutter, Dart, and SQLite, featuring AES-256 encryption and biometric authentication.
- Implemented strong password generation and secure export/import of encrypted backups, enhancing user data protection.

Ongoing	**https://github.com/Alex-Muhscience/Health-Info-App** ⬈

Healthcare Data Platform
- Developing a secure platform for healthcare data management using React, Node.js, PostgreSQL, and JWT authentication.
- Features include RESTful APIs, role-based access controls, and optimized data visualization, improving retrieval efficiency by 25%.
- Focus on compliance with data protection standards to ensure patient record security.

Ongoing	**https://github.com/Alex-Muhscience/Secure-File-Sharing-App** ⬈

Secure File Sharing Platform
- Building a hybrid blockchain-based platform using Python, Solidity, Web3.js, and AWS for secure file transfers.
- Implements AES-256 encryption, Ethereum smart contracts for metadata, and IPFS/AWS S3 for decentralized storage.
- Focus on permission-based access control to ensure secure sharing for SMEs.

LANGUAGES

English
Proficient

Swahili
Proficient

INTERESTS

Cyber Security
- Developing advanced tools for system and network protection

Blockchain Technology
- Exploring decentralized systems and smart contract security.

Artificial Intelligence and Machine Learning
- Building ethical, adaptive Artificially Intelligent systems for real-world applications.

Open Source
- Contributing to innovative projects and fostering collaboration.

REFEREES

James Githongori, *CEO,* Gicatech Enterprise Solutions
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Mr. Fredrick Wahome, *CEO,* Secunets Technologies Ltd
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Dr. Ruth Chweya, *C.o.D, School of Information Science and Technology,* Kisii University
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