# Collins Mbwika Mwange

# Cybersecurity Engineer & Researcher

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### **Professional Summary**

A Cybersecurity professional and researcher with a proven track record showcased by authoring of international conference worth groundbreaking research and development of a novel spyware tool. Deep understanding of network security, penetration testing, malware code analysis and development, NIST security framework, and vulnerability assessment methodologies. Excelled at the Kenya Ports Authority and the Postal Corporation of Kenya supporting business growth, improving efficiency by 50%. Founder of Code & Security, a hub for advancing cybersecurity knowledge, awareness creation, and delivering high-quality security solutions. With exceptional interpersonal and communication skills, I possess the necessary skills and tools to deliver top-tier cybersecurity and software solutions.

#### Education

Master of Science in Cyber Security, Technology, and Policy The University of Texas at Dallas May 2025 CGPA: 3.67 Bachelor of Science in Computer Science Maseno University, Kenya Dec 2019 2<sup>nd</sup> Class (Upper Division)

## Experience

Cybersecurity Analyst & Software Developer | Founder Code & Security Hub | Since Sep 2020 Responsibilities and achievements:

- Threat hunting in software, systems, and networks by conducting vulnerability analysis and cuttingedge research that has led to groundbreaking discoveries and an invitation to present my research in an international conference.
- Pen-testing systems by developing software/malware to exploit, test, or support cybersecurity research findings which has resulted in development of a novel Android spyware tool that includes a C&C server which I am invited to present in the 12th ISDFS 2024 conference at San Antonio, TX.
- Code optimizing and analysis for better performance, scalability, reliability, security and maintainability which has made it possible to scale up projects with higher efficiency without compromising on security.
- Maintaining Git version control repositories on GitHub and Implementing agile development practices across multiple projects, ensuring timely delivery of high-quality solutions within budget constraints.

Systems Support Intern | Kenya Ports Authority (KPA), Mombasa, Kenya | May 2017 - Aug 2017 Responsibilities and achievements:

- Delivered support to various departments of the authority over the telephone and in person while working on the first and second line of support and received high accolades for exceptional customer support.
- Gained experience in customer service, problem-solving, and communication through daily interactions with clients.

- Identified potential areas of improvement within existing systems and procedures and acquired knowledge in web design principles while creating content for company websites.
- Was involved in the redesigning of the authority LAN which saw reduction of network latency by 50% and minimization of downtime by 80%

IT Support Intern | Postal Corporation of Kenya (PCK), Mombasa, Kenya | May 2016 - Sep 2016 Responsibilities and achievements:

- Improved overall user experience through support, training, troubleshooting, improvements, and communication of system changes, and was acknowledged as the most productive intern of the cohort.
- Developed strong organizational and time management skills by completing multiple tasks simultaneously while working at the helpdesk for line 1 and 2 technical support.
- Demonstrated ability to take initiative and work independently on assigned projects creating solutions for team challenges and boosting the team output by 20%.
- I made a final project presentation at the end of my internship to communicate findings, share learnings, and offer suggestions for improving the program and the corporation.

#### Skills and Abilities

- Programming: Java, PHP, Kotlin, Android; JavaScript, C, R, Python
- Databases: MySQL/MariaDB, MS SQL, Oracle, SQLite, SQL, Excel
- Tools and products: Metasploit use to create payloads for injecting into Android apps |
  Wireshark use to analyze network traffic | ZAP use for web application scanning |
  AirCrack/AirGeddon use to brute-force (pentest) Wi-Fi passwords | Kali Linux use as the platform of choice for pen-testing operations | Canva use for designing visually appealing graphics for presentation | Wireshark (analyzing network traffic) | ZAP (web app scanning) | Ghidra (malware code reverse engineering and analysis) | Burp Suite | Nmap | Netcat
- Soft Skills: Creativity | Team Player | Analytical thinking | Decisive | Results-Oriented

#### Project | Research | Extracurricular

Invited to orally present my research paper on the latest exploits in Android OS at the 12th International Symposium on Digital Forensics and Security (ISDFS 2024) in San Antonio, Texas, on April 29-30, 2024.