BENSON MACHARIA

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PROFESSIONAL SUMMARY

I am a Cybersecurity, Technology Risk, and IT Audit professional with over six years of experience in the financial services industry and professional services space. I specialize in designing secure applications and ensuring zero critical or high-risk issues for applications deployed to production. My expertise includes conducting comprehensive vulnerability assessments and penetration testing of enterprise applications, networks, and cloud environments. I have a proven track record of enhancing pipeline security by ensuring the complete integration of automated security testing tools in CI/CD pipelines, effectively mitigating risks and safeguarding organizational assets.

TECHNICAL SKILLS

Security Testing: Kali Linux, Metasploit, Nmap, SQLMap, Nessus, InsightVM, Burp Suite, Acunetix, MITRE ATT&CK.
Cloud: AWS Cloud, Google Cloud Platform (GCP), Azure Cloud.
DevSecOps: Docker, Kubernetes, Jenkins, Jfrog Artifactory, SonarQube, Veracode, OWASP ZAP, Acunetix, GitLab CI.
Automation: Python, Bash, PowerShell, Golang, Ansible, Javascript, Terraform, Java, PHP, C, C++, C#
Databases: MySQL, MongoDB, SQLite, PostgreSQL, Oracle, Microsoft SQL Server, DynamoDB, Cassandra, Redis.
IT Governance and Risk: COBIT, ISO/IEC 27001, NIST Cybersecurity Framework, Threat Modeling.
Internal Controls: SOX Compliance, IT General Controls (ITGC).
Reporting and Documentation: Microsoft Excel, Microsoft Access, SQL for data extraction and reporting.

WORK EXPERIENCE

Principal/Manager Cybersecurity Assurance   **Safaricom PLC (Vodafone Group Subsidiary)**

Dec 2021 - Present

- Champion adoption and integration of DevSecOps tools like Veracode and OWASP ZAP within the CI/CD pipelines for automatic security scanning, reducing software pipeline security vulnerabilities by 40%.
- Create security automation scripts using Python and Bash, resulting in a 30% decrease in manual security compliance checks on servers and database systems.
- Manage the private bug bounty program, validating all reports, awarding and facilitating closure of reports by project teams within defined SLAs.
- Conduct red team exercises on at least 2 applications in production every month, reporting on findings and facilitating closure of all issues within SLA.
- Conduct security assessments for all waterfall and agile projects before go-live, ensuring closure of all critical/high/Medium risk defects before project go-live.
- Coordinate cross-functional teams to implement security controls and practices required by PCI DSS, resulting in the organization attaining PCI DSS certification within 6 months.

Assistant Manager Cybersecurity & Tech Risk Consulting   **Ernst & Young (EY)**

Feb 2019 – Dec 2021

- Conducted Central Bank of Kenya (CBK) cybersecurity compliance reviews for three leading Tier 1 and Tier 2 banks in Africa over a three-year period, facilitating closure of 95% of identified security gaps.
- Led a team of 5 cybersecurity consultants, ensuring delivery of high-quality security assessments and maintaining a client satisfaction rate of 98%.
- Managed project timelines, budgets, and resources, achieving a 95% on-time delivery rate.
- Implemented security frameworks and compliance standards such as ISO 27001, NIST, and PCI DSS, ensuring clients' adherence to industry regulations.
- Developed and delivered cybersecurity awareness training programs for clients, enhancing their security posture and reducing phishing incidents by 40%.
- Documented risk assessments and audit findings, prepared detailed reports, and presented actionable recommendations to management, aiding organizations in improving their IT governance processes.
- Assessed and tested IT General Controls (ITGC) for over 20 client systems, helping enhance internal control environments and reducing incidents.

Database Administrator   **The Judiciary of Kenya**

Dec 2016 – Jan 2019

- Led a team of 3 database administrators, managing over 10 enterprise databases running on Oracle, PostgreSQL, Mongo and MySQL database systems across multiple environments, ensuring 95% uptime through optimized maintenance schedules and proactive monitoring.
- Cordinated database backup and ensured 99.9% backup success rate by automating the backup processes and conducting regular recovery drills.
- Conducted quarterly security audits and vulnerability assessments on the databases, reducing potential security threats by 50%.
- Improved database query performance by 25% through database tuning and indexing strategies.
- Successfully led the migration of over 5TB of data from legacy case management system database to modern a database platform on Cloud with zero data loss.

Applications Developer   **World Agroforestry Centre (ICRAF)**

May 2014 – Dec 2016

- Developed a key research projects full-stack web application using JavaScript, HTML, CSS, and PHP Laravel, increasing project work visibility and research papers downloads by over 50%
- Implemented responsive design for the corporate website, resulting in a 40% increase in mobile traffic.
- Managed the migration of partners website from Joomla to WordPress, improving site performance and user experience by 60%.
- Integrated third-party services and APIs into the intranet web application, enhancing application functionality and user experience by 35%.

EDUCATION

Strathmore University	MSC. Information Systems Security	Aug 2018 – Dec 2021	Nairobi, Kenya
Kenyatta University	BSc. Computer Science	Sep 2011 – Jul 2015	Nairobi, Kenya

CERTIFICATIONS

- Certified Information Systems Security Professional (CISSP)
- Certified Information Systems Auditor (CISA)
- Certified Ethical Hacker (CEH)
- AWS Certified DevOps Professional
- AWS Certified Solutions Architect
- AWS Certified Developer – Associate
- Google Cloud Certified Security Engineer Professional
- Microsoft Certified Azure Security Engineer
- API Security Architect
- InsightAppSec Certified Specialist
- InsightVM Certified Administrator

ASSOCIATIONS

- Member of International Information System Security Certification Consortium (ISC2)
- Member of Information Systems Audit and Control Association (ISACA)
- AWS Community Builder and ISACA Mentor

PUBLICATIONS

- Personal Blog - https://bmacharia.com
- Medium - https://medium.com/@bmacharia
- Dev.to - https://dev.to/bensonmacharia
- Github - https://github.com/bensonmacharia