

# BENSON MACHARIA

## Principal/Manager Cybersecurity Assurance

Cloud Security, Cyber Advisory, Security Architecture, DevSecOps, Threat Modeling, AI Security

### PROFESSIONAL SUMMARY

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I am a Cybersecurity Professional with over 8 years of experience in the financial services and consulting sectors, specializing in security assurance, secure-by-design architecture, and embedding security throughout agile and waterfall project lifecycles. I have strong expertise in cloud security across Azure, AWS, and GCP, and extensive experience leading DevSecOps programs by integrating SAST, SCA, DAST, and IaC scanning into CI/CD pipelines. My background includes overseeing bug bounty programs, managing vulnerability triage and remediation, and directing red team and penetration testing exercises to strengthen organizational resilience. I have designed and implemented cybersecurity frameworks aligned with ISO 27001, NIST, and PCI-DSS for global clients, while delivering executive-level reporting on systemic risks, and compliance outcomes. I hold CISSP, CISM, CISA, and other technical certifications, along with a Master's degree in Information Systems Security.

### WORK EXPERIENCE

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#### Principal/Manager Cybersecurity Assurance

Safaricom PLC (Vodafone Group)

Dec 2021 - Present

- Provide oversight of application and project security reviews, identifying vulnerabilities, approving remediation, and ensuring zero critical or high risks reach production.
- Architect secure solutions across cloud (Azure, AWS, GCP) and on-premise platforms, embedding security controls to protect high-value assets.
- Lead threat modeling efforts, ensuring risk prioritization, mitigation, and alignment with secure-by-design practices.
- Oversee the Bug Bounty Program by triaging, validating, and managing vulnerability reports, engaging researchers, and tracking remediation with engineering teams.
- Develop and maintain security guidance, policies, and procedures in line with ISO 27001, NIST, PCI-DSS, and other regulatory standards.
- Define and drive the DevSecOps roadmap by integrating SAST, SCA, DAST, IaC scanning, and security gates into CI/CD pipelines, while enabling developer training.
- Track and analyze security metrics to provide leadership with executive-level insights on systemic risks, assurance trends, and continuous risk mitigation improvements.
- Direct red team exercises and penetration testing engagements, ensuring findings are remediated within agreeable timelines.
- Collaborate with project managers, engineers, and business units across agile and waterfall lifecycles to embed security requirements and ensure audit readiness.
- Lead, mentor, and recruit cybersecurity professionals within the security assurance team.

#### Assistant Manager Cybersecurity Consulting

Ernst & Young (EY)

Feb 2019 – Dec 2021

- Managed multiple security projects, ensuring timely delivery within budget while maintaining high security and compliance standards.
- Led security training sessions and workshops, improving cybersecurity awareness and secure coding practices for client teams.
- Conducted in-depth security assessments, threat modeling, and risk analysis, identifying vulnerabilities and suggesting remediation strategies that reduced security risks.
- Advised clients on secure architecture design, integrating security controls into cloud and on-premise environments to strengthen overall security posture.
- Provided guidance on cloud security best practices and compliance with NIST, CIS, GDPR, HIPAA, ISO 27001, and PCI DSS, helping organizations meet regulatory requirements.
- Developed tailored cybersecurity strategies, helping clients align their security objectives with business goals.
- Enhanced network security by deploying intrusion detection, vulnerability management, and encryption strategies, mitigating threats to clients' enterprise environments.
- Created security documentation and roadmaps, enabling clients to scale their cybersecurity programs and adapt to evolving threats.

## Backend Developer and Database Administrator

The Judiciary of Kenya

Dec 2016 – Jan 2019

- Led a team of three database administrators, managing 10+ enterprise databases across Oracle, PostgreSQL, MongoDB, and MySQL, ensuring 95% uptime through proactive maintenance and monitoring.
- Automated database backup processes, achieving a 99.9% backup success rate and improving disaster recovery through regular recovery drills.
- Conducted quarterly security audits and vulnerability assessments, reducing potential security threats through improved access controls and encryption strategies.
- Optimized database performance by tuning queries and indexing, increasing efficiency and reducing system load.
- Led the migration of 5TB+ data from a legacy case management system to a modern cloud-based database, ensuring zero data loss and improved scalability.

## Applications Developer

World Agroforestry Centre (ICRAF)

May 2014 – Dec 2016

- Developed full-stack research web application using JavaScript, PHP (Laravel), Python, and Java, increasing project visibility and research paper downloads.
- Redesigned the corporate website with a responsive layout using Next.js and tailwindcss, leading to a rise in mobile traffic and improved user engagement.
- Migrated the partners' website from Joomla to WordPress, enhancing site performance, security, and user experience.
- Integrated third-party services and APIs into the intranet system, improving functionality, automation, and overall user experience.
- Optimized website performance and security, reducing load times and strengthening protection against common web vulnerabilities.

## EDUCATION

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Georgia Institute of Technology	MSc. Computer Science - AI & Machine Learning	Jan 2026 – Dec 2028
Strathmore University	MSc. Information Systems Security - Application Security	Oct 2018 – Dec 2021
Kenyatta University	BSc. Computer Science - Software Engineering	Sep 2011 – Jul 2015

## CERTIFICATIONS

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- Certified Information Security Manager (CISM)
- Certified Information Systems Security Professional (CISSP)
- Certified Information Systems Auditor (CISA)
- Certified Ethical Hacker (CEH)
- AWS Certified Solutions Architect, Certified Security Specialist & Certified DevOps Engineer
- Google Cloud Certified Security Engineer Professional
- Microsoft Certified Azure Security Engineer
- Certified Payment Industry Security Implementer (CPIST)

## ASSOCIATIONS

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

## PUBLICATIONS

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