

Martin Mbithi

Software Engineer

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PROFILE

Software engineer with eight years building web, mobile and cloud systems for government, NGOs and private companies. Currently in the Applications Development section at the Government of Makueni County, part of the in-house team that built myMakueni, the county's enterprise resource planning platform (31 modules, launched August 2026). Strengths in backend and API development, integration with banks and payment gateways, cloud and Linux infrastructure, and secure development. MSc in Cyber Security and Digital Forensics.

CORE COMPETENCIES

Languages: PHP, Python, Java, JavaScript, C, Bash, SQL

Cloud and infrastructure: AWS, Google Cloud, Kubernetes, Docker, CI/CD, Linux and Unix, Nginx

Integration: RESTful APIs, microservices, bank and payment gateway integration, Swagger, Postman

Delivery: Agile, Scrum, Kanban, JIRA, Git, GitHub, GitLab, code review

Frameworks: Laravel, Django, Flask, Spring Boot, Node.js, React, Vue

Databases: MySQL, PostgreSQL, MongoDB, Redis

Security and testing: Secure development, system audits, role-based access control, unit and automated testing

Design: Figma, Adobe XD

PROFESSIONAL EXPERIENCE

Software Engineer, Applications Development

Mar 2023 to present

Government of Makueni County

- Build and maintain the county's in-house software as part of the ICT Applications Development team, including myMakueni, the county ERP launched in August 2026 with 31 modules across finance, planning, health, HR and citizen engagement.
- Engineer the backend services and data models for the public finance modules: revenue billing and receipting, programme-based budgeting and expenditure workflows.
- Design and maintain REST APIs integrating county systems with banks, payment gateways and SMS and email services.
- Deliver the county systems linked from the ERP, including the procurement portal, PMTS, IVAS, Kilimo Makueni and the ECDE, VTC and CIC management systems.
- Optimise SQL and NoSQL schemas and queries to keep reporting responsive as data grows.
- Introduced Git-based workflow, code review and automated testing; mentor junior engineers and work with finance, procurement and operations staff to turn policy into working software.

ICT Officer

Jan 2022 to Feb 2023

ICT Authority, Machakos County Headquarters

- Provided technical support to staff, resolving hardware and software faults.
- Installed and maintained network infrastructure to keep connectivity and system performance stable.
- Ran regular system audits and implemented cybersecurity controls against data breaches and unauthorised access.
- Worked with departmental teams to specify and roll out technology that reduced manual effort.

Mobile Application Developer

Jan 2021 to Nov 2021

World Christian Fellowship (NGO)

- Developed and maintained native iOS and Android applications in Swift and Java.
- Implemented interfaces from design mockups and integrated third-party APIs for geolocation and social sharing.
- Tested across devices and OS versions; user satisfaction rose 30% and load times fell 20% after memory profiling.

Web Application Developer

Jan 2020 to Jul 2021

Ezana Group

- Developed responsive web applications with HTML, CSS, JavaScript, React, Vue and Bootstrap.
- Worked with UI/UX designers on interfaces that raised user engagement by 20%.
- Built server-side components and REST APIs in Node.js and Express.

Web Developer and ERP Support Officer

Jan 2020 to Jan 2021

Ukamba Bible College

- Supported and extended the college's web applications and ERP system.
- Implemented designer mockups as production pages, contributing to a 25% rise in site traffic.
- Reduced page load times, cutting bounce rate by 15%, and resolved cross-browser compatibility issues.

Software Engineer

Jan 2018 to Jan 2020

DevLan Solutions Ltd

- Introduced code review, Git version control and unit testing across the team.
- Developed REST APIs for data exchange between software components.
- Profiled and tuned application performance and resolved complex technical faults to reduce downtime.
- Delivered features on Agile cycles aligned to client priorities.

Graphic Designer

Jan 2016 to Jan 2018

Lauh Print Company, Machakos

- Produced branding, marketing and digital artwork, and print materials to client brand guidelines, in Photoshop, Illustrator and InDesign.

EDUCATION

MSc, Cyber Security and Digital Forensics, Open University of Kenya

BSc, Computer Science, St Paul's University

2017 to 2020

CERTIFICATIONS

- Software Engineering Certification, Open University of Kenya, 2025
- Agile Project Management and JIRA, HP Foundation, Atlassian and Great Learning, 2024
- DevOps Certification, Edureka, 2022
- Cyber Security Essentials, Cisco, 2019
- Mobile Web Specialist, Andela and Google Africa Developer Scholarship, 2018
- NDG Linux Unhatched and Linux Essentials, Cisco, 2017
- ICDL and Graphic Design, CTC College, 2016