

## MARTIN MBITHI NZILANI

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Portfolio: [martmbithi.github.io](https://martmbithi.github.io)

GitHub: [github.com/martmbithi](https://github.com/martmbithi)

### Professional Profile

I'm an experienced Software Engineer with a robust background spanning over 5 years, specializing in the intricate domains of Linux and Unix cloud architecture and administration. My proficiency extends to developing resilient solutions across diverse technological landscapes, encompassing a spectrum of programming languages such as PHP, Java, Python, JavaScript, Ruby, C, and Bash.

I possess a strong foundation in industry-leading frameworks, including Laravel and CodeIgniter for PHP, Spring Boot for Java, Flask and Django for Python, and Vue and React.js for JavaScript. In the realm of Linux and Unix cloud architecture and administration, I have demonstrated advanced capabilities as a seasoned professional. My expertise covers proficiently managing cloud infrastructure, implementing scalable and secure solutions, and optimizing and automating performance in cloud environments.

I bring a wealth of experience in Content Management Systems (CMS), excelling in website development using platforms such as WordPress, Drupal, and Joomla. On the database front, I exhibit prowess in SQL database management systems, showcasing proficiency in both MySQL and Microsoft SQL Server. Additionally, I am an adept practitioner of NoSQL databases, demonstrating mastery with MongoDB, PostgreSQL, and Redis.

As a versatile full-stack developer, my comprehensive skills extend to User Interface (UI) and User Experience (UX) best practices. This proficiency is complemented by my adeptness in design tools like Adobe XD and Figma. Furthermore, I bring expertise in version control, ensuring streamlined collaboration and effective code management.

### Work Experience

#### Government of Makueni County

##### Lead Software Engineer – Applications Development Section

03/2023 – 05/2024

- Played a pivotal role in automating government services, significantly enhancing service delivery to county citizens by streamlining processes and reducing manual workloads.
- Spearheaded the design, development, and implementation of innovative and scalable software solutions, including web applications and mobile apps, using advanced technologies such as JavaScript, HTML/CSS, PHP, Python, and Java, thereby significantly enhancing user experience and client satisfaction.
- Developed RESTful APIs to facilitate seamless communication and integration between various software components, optimizing data exchange processes.
- Implemented industry best practices, including rigorous code reviews, version control (Git), and unit testing, which led to improved code quality, maintainability, and reduced technical debt.

- Applied agile methodologies to manage software development projects, ensuring timely delivery of features and updates that align with project goals and meet customer needs.
- Oversaw and optimized both SQL and NoSQL County databases, enhancing data storage and retrieval efficiency, which resulted in faster query response times and improved system performance.
- Conducted meticulous testing and debugging of software applications using automated testing frameworks, ensuring the delivery of high-quality code and minimizing product defects.
- Developed and executed unit and integration tests, supporting the validation of software deliverables against user and technical story acceptance criteria.
- Collaborated closely with cross-functional teams, including Procurement, Accountants, and support teams, to gather requirements, translate them into technical specifications, and design software architecture that meets business needs.
- Mentored junior developers, providing guidance and knowledge-sharing to foster skill development and ensure adherence to best practices in software development.
- Integrated existing systems with third-party APIs, services, payment platforms, banks, and payment gateways, enhancing the functionality and user experience of current software solutions.
- Troubleshooted, debugged, and upgraded existing software to improve performance and resolve issues, ensuring continuous system reliability.
- Provided ongoing maintenance and support for software currently in use within the organization, ensuring systems remain functional, up-to-date, and aligned with evolving business requirements.
- Created and maintained comprehensive and high-quality documentation for all developed software products, ensuring clarity and accessibility for future reference and continued software development.
- Actively participated in code reviews, ensuring adherence to coding standards, and shared knowledge with peers to collectively improve code quality across the development team.

## **ICT Authority, Machakos County Headquarters**

### **ICT Officer**

01/2022 – 02/2023

- Delivered comprehensive technical support to end-users, swiftly and effectively resolving hardware and software issues.
- Executed the implementation and maintenance of network infrastructure, ensuring uninterrupted connectivity and optimal system performance.
- Conducted routine system audits and implemented robust cybersecurity measures, safeguarding against data breaches and unauthorized access.
- Fostered collaboration with cross-functional teams to design and implement cutting-edge technology solutions, resulting in enhanced efficiency and productivity throughout the organization

## **World Christian Fellowship NGO**

### **Mobile Application Developer**

01/2021 – 11/2021

- Developed and maintained native iOS and Android applications using Swift and Java.
- Collaborated with a cross-functional team of designers and backend developers to deliver feature-rich and user-friendly applications.

- Implemented responsive and visually appealing user interfaces based on design mockups, ensuring a seamless user experience.
- Integrated third-party APIs for features like geolocation services and social media sharing.
- Conducted rigorous testing across multiple devices and platforms to identify and resolve compatibility issues, resulting in a 30% increase in user satisfaction and optimized app performance by analyzing and improving memory usage, reducing loading times by 20%.
- Submitted and managed applications on the Apple App Store and Google Play Store, ensuring compliance with platform guidelines while proactively identified and addressed security vulnerabilities, enhancing user data protection and app credibility.
- Collaborated in regular code reviews, contributing to a culture of continuous improvement and knowledge sharing.
- Assisted in the development of a new feature that led to a 15% increase in app downloads within the first month of release.

## **Ukamba Bible College**

### **Web Developer and ERP Support Officer**

01/2020 – 01/2021

- Collaborated closely with UI/UX designers to bring visually appealing and engaging designs to life, resulting in a 25% increase in website traffic.
- Implemented efficient and maintainable code, adhering to industry best practices and coding standards.
- Optimized website performance by analyzing and improving page load times, resulting in a 15% decrease in bounce rate.
- Conducted cross-browser compatibility testing and resolved compatibility issues to ensure a consistent user experience across different platforms.
- Integrated RESTful APIs to enable dynamic content updates and interactive features on the websites.
- Assisted in migrating an existing website to a new content management system (CMS), streamlining content management processes.
- Provided technical support and troubleshooting for the institution's ERP system, ensuring smooth operation and resolving user issues promptly.
- Collaborated with cross-functional teams to gather requirements and implement system enhancements, resulting in improved process efficiency.
- Conducted user training sessions to onboard new employees and enhance existing users' understanding of the ERP system's capabilities.
- Managed system configurations, user permissions, and data integrity, contributing to accurate reporting and data analysis.
- Assisted in the customization of the ERP system to align with specific business needs, including creating custom reports and dashboards.
- Played a key role in system upgrades and migration projects, coordinating testing, data migration, and user training.
- Developed and maintained documentation, including user guides and troubleshooting resources, to facilitate self-help for users.
- Implemented security measures and access controls to safeguard sensitive data and ensure compliance with data protection regulations.

## **Ezana Group**

### **Web Application Developer**

01/2020 – 07/2021

- Designed and developed responsive and user-friendly web applications using HTML, CSS, JavaScript, and modern front-end frameworks such as React, Vue and Bootstrap.
- Collaborated closely with UI/UX designers to implement visually appealing and intuitive user interfaces, resulting in a 20% increase in user engagement.
- Utilized back-end technologies such as Node.js and Express to build robust and scalable server-side components and APIs and implemented RESTful APIs to facilitate seamless communication between the front-end and back-end components, enabling dynamic content updates and interactive features.
- Conducted thorough testing and debugging to ensure the reliability and performance of web applications across different browsers and devices.
- Utilized version control systems (e.g., Git) to manage codebase changes and collaborated effectively with a team of developers using agile methodologies.
- Integrated authentication and authorization mechanisms to secure sensitive user data and enhance application security.
- Optimized application performance by analyzing and refining database queries and improving page load times by 15%.
- Assisted in the deployment of web applications to production environments, ensuring smooth and error-free releases.
- Actively participated in code reviews, providing constructive feedback and contributing to a culture of continuous improvement.
- Led a cross-functional team in the development of a new feature, resulting in a 30% increase in user retention within the first month of launch.

## **DevLan Solutions LTD**

### **Software Engineer**

01/2018 – 01/2020

- Implemented best practices in software engineering, including code reviews, version control (Git), and unit testing, resulting in improved code quality and maintainability.
- Utilized agile methodologies to deliver features and updates on time, ensuring alignment with project goals and customer needs.
- Developed RESTful APIs to enable seamless communication between various software components, facilitating data exchange and integration.
- Optimized applications performance by identifying and addressing bottlenecks and conducting profiling and performance tuning.
- Investigated and resolved complex technical issues, enhancing software reliability and minimizing systems downtime.
- Contributed to the migration of a monolithic applications to a microservices architecture, improving scalability and enabling easier feature development.
- Mentored junior developers, providing guidance and technical support to foster professional growth within the team.

- Collaborated with product managers to define and prioritize software features based on user feedback and market trends.
- Designed, developed, and maintained scalable and efficient software solutions using Java, Python, and C++.
- Collaborated with cross-functional teams to gather requirements and translate them into technical specifications and software architecture.

## **Lauh Print Company Machakos Branch**

### **Graphic Designer**

**01/2016 – 01/2018**

- Collaborated with clients and internal teams to conceptualize and create visually compelling graphics for various projects, including branding, marketing materials, and digital assets.
- Designed and executed print materials such as brochures, posters, and business cards, ensuring alignment with clients' brand guidelines and project objectives.
- Utilized Adobe Creative Suite (Photoshop, Illustrator, InDesign) to craft high-quality designs and artwork, consistently exceeding client expectations.
- Incorporated typography, color theory, and layout principles to create aesthetically pleasing and impactful designs that conveyed the intended message effectively.
- Worked closely with copywriters and marketing teams to integrate visuals and text seamlessly, resulting in cohesive and impactful marketing campaigns.
- Adapted designs for different platforms and formats, ensuring consistent branding and messaging across various media.
- Participated in brainstorming sessions and provided creative input to develop innovative design concepts and strategies.
- Managed multiple projects simultaneously, met tight deadlines, and maintained a high level of attention to detail.

## **Skills**

- Programming languages. Proficiency in these languages: Java, Bash, Python, C++, C#, JavaScript, Ruby, Swift, Kotlin, PHP and willing to learn new language as per project needs.
- Software Development Lifecycle (SDLC). Solid understanding on different phases of software development including requirements gathering, design, development, testing, deployment, and maintenance.
- Algorithms and data structures. Strong knowledge of algorithms and data structures to optimize code performance and solve complex problems efficiently.
- Problem solving. I have the ability to analyze problems, break them down into manageable components, and formulate effective solutions.
- Object-oriented programming (OOP). Strong understanding of OOP principles to design and create modular, reusable, and maintainable codebase.
- Version control. Proficiency with version control systems like Git for managing and collaborating on code changes.
- Debugging and Troubleshooting. Skilled in identifying and resolving software bugs, errors, and performance issues.

- Database design and management. Strong knowledge of database design, SQL, and working with databases like MySQL, PostgreSQL, or NoSQL databases like MongoDB.
- Web development. Strong understanding of web technologies, including HTML, CSS, JavaScript, PHP, and frameworks like React, Vue.js, Tailwind CSS, Bootstrap, Laravel, Code Igniter and Nodejs.
- Software architecture. Familiarity with designing software architectures that are scalable, maintainable, and aligned with industry best practices.
- Testing and quality assurance. Strong experience with unit testing, integration testing, and automated testing frameworks to ensure software quality.
- Continuous Integration/Continuous Deployment (CI/CD). Strong understanding of CI/CD pipelines and tools to automate code integration, testing, and deployment.
- Cloud computing. Knowledge of cloud platforms such as AWS, Google Cloud, Shared Hosting - Cpanel and their services for building scalable applications.
- API design and integration. Experienced in designing and integrating APIs to enable communication between different software components.
- Security awareness. Understanding of software security principles to implement measures that protect data and prevent vulnerabilities.
- Agile methodologies. Proficient with agile development methodologies like Scrum and Kanban for efficient project management.
- Collaboration and communication. Effective communication and teamwork skills to collaborate with cross-functional teams and stakeholders.
- Continuous Learning. Willingness to learn new technologies and stay updated.
- Soft Skills. Strong problem-solving, critical thinking, time management, and attention to detail.

## Education, Vocational Qualifications & Training

- **DevOps Certification**  
Edureka, 2022
- **Bachelor of Science in Computer Science,**  
St Paul's University, 2017 - 2020  
First Class Honors
- **Cyber Security Essentials Certification**  
CISCO 2019
- **Mobile Web Specialist Certification**  
Andela / GADS 2018
- **NDG Linux Unhatched and Essentials Certification**  
CISCO 2017
- **ICDL and Graphic Design**  
CTC College - Kawagware, 2016

Distinction

- **Kenya Certificate of Secondary Education,**  
Kyu Secondary School 2012 - 2015  
Mean Grade B (Minus)
- **Kenya Certificate of Primary Education,**  
Mbooni DEB Primary School 2003 – 2011

## Referees

Available Upon Request