

Brian Mwenda

Senior Software Engineer

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SUMMARY

Senior Software Engineer with 5+ years of experience building and scaling high-performance web applications across Vue and React ecosystems, with deep expertise in TypeScript. Proven track record architecting and deploying production systems using Node.js, Python, .NET, and Java on cloud infrastructure (AWS/Azure/GCP). Recognized open-source contributor with a passion for engineering user-centric solutions that prioritize performance, maintainability, and scalability.

EXPERIENCE

Senior Front End Engineer , <i>Nathan Digital</i>	11/2023 – Present Dubai, UAE
<ul style="list-style-type: none">• Developed a robust accounting system that streamlined financial operations, handling invoices, debts, multi-currency transactions, and ledger management.• Optimised the front-end performance of the accounting platform using Nuxt and TypeScript, reducing load times by 40% and improving user experience.• Implemented intuitive UI/UX enhancements that simplified complex financial workflows, increasing user efficiency and satisfaction.• Promoted to Front-End Team Lead after 9 months leading a team of developers in building scalable web applications.• Oversaw the development of a Customer Relationship Management (CRM) system, integrating real-time data analytics and automation features for client management.• Led the creation of a drag and drop website builder, enabling businesses to design and launch customised websites with ease.• Established best practices in code reviews, testing strategies, and front-end architecture, improving team productivity and maintainability of applications.• Increased organic traffic and user engagement by 30% through Next.js implementation, delivering faster page loads and optimized SEO performance.• Oversaw the code review process, ensuring adherence to best practices and high-quality standards and managed deployments, coordinating with the team to ensure smooth and timely releases.• Mentored junior developers, helping them transition from React to Vue.js 3, ensuring they understood key concepts and best practices.	
Software Engineer , <i>Codekazi</i>	02/2022 – 11/2023 Nairobi, Kenya.
<ul style="list-style-type: none">• Integrated RFID hardware with a patient tracking application (React/Python), enabling real-time automated patient monitoring and reducing manual tracking time by 40%.• Implemented a messaging feature aggregating messages from multiple platforms (WhatsApp, Facebook, Instagram) into one interface, enabling e-commerce vendors to manage customer inquiries and reducing response time by 55%.• Developed a CRM feature that integrated customer leads from Facebook into the e-commerce platform, automating lead capture and improving follow-up rate from 62% to 89% within 24 hours.• Developed a filter feature for the B2C e-commerce application, reducing average product search time from 8 minutes to 2.5 minutes and improving purchase conversion by 23%.	

- Developed a dynamic room rate management feature for the hospital B2B platform, enabling administrators to adjust pricing for private rooms and specialized care units based on seasonal demand, occupancy levels, and service tiers, increasing revenue optimization by 18%.
- Led technical development of an RFID-based asset management system providing real-time location tracking and automated alerts for all building assets, reducing theft and loss by 35% and eliminating manual inventory audits.
- Integrated third-party services including pharmacy systems, diagnostic lab platforms, and insurance verification APIs, reducing manual data entry by 65% and decreasing prescription processing time from 8 minutes to 3 minutes.

Front-End Developer, Italanta

07/2022 – 08/2023

Nairobi, Kenya

- Optimized the Conversational Learning Management (CLM) platform's backend architecture by refactoring Node.js microservices and implementing database query optimization, improving API response times and overall system performance.
- Engineered RESTful API endpoints using TypeScript and Firebase Cloud Functions to handle asynchronous messaging workflows for WhatsApp-based learning interactions, reducing data processing latency by 30%.
- Architected and implemented scalable server-side applications using Angular 8+ and Firebase Realtime Database, supporting concurrent user sessions for large-scale teacher training programs.
- Developed real-time data synchronization mechanisms between Firebase and client applications, enabling seamless conversation state management across distributed learning modules.
- Implemented automated testing suites and code review protocols using Jest and Cypress, contributing to improved code quality and deployment reliability.
- Built Progressive Web App (PWA) features with service workers and offline-first architecture, enhancing platform accessibility for users with limited connectivity.

Freelance Full stack Engineer, Self-Employed | Remote

03/2021

Nairobi, Kenya

- Developed Trapflix, a cross-platform mobile application using React Native and Expo, integrating with PHP/Laravel backend APIs for content delivery, user authentication, and data management, achieving 10k+ downloads across iOS and Android.
- Built and maintained the Trapflix web platform with React frontend and PHP backend, implementing RESTful API endpoints, optimizing database queries, and leveraging caching strategies to improve page load speed by 25%.
- Architected and developed a warehouse management system using CodeIgniter (PHP) and MySQL, implementing real-time inventory tracking, automated stock alerts, and barcode scanning integration to improve logistics efficiency by 30%.
- Training: Delivered comprehensive training sessions in HTML, CSS, and JavaScript, significantly enhancing junior developers' coding proficiency and accelerating their learning curve.

Open Source - OSS Developer

- **Marquee (Vue)** - Collaborated on developing dynamic marquee component for Vue 3, implementing animation controls, performance optimizations, and TypeScript type definitions; 99 GitHub stars.
- **Penpot** - Contributed to open-source design platform by improving frontend components and enhancing UI/UX for design collaboration features.