

# MUCHAI MWENDA

+254-759-261-505 · mwendav6@gmail.com  
Nairobi, Kenya

## SOFTWARE ENGINEER

A passionate and results-driven Software Engineer with 5+ years of experience specializing in backend and fullstack development using Node.js and React.js. Proven track record in building scalable, high-performance applications with clean architecture and modern development practices. Experienced in developing RESTful APIs, event-driven systems, and real-time features using tools like Express.js, Socket.io, and Kafka. Skilled in crafting responsive and intuitive UIs with React.js, state management tools, and modular component design. Comfortable working across the stack and collaborating with cross-functional teams to deliver business-focused, user-friendly solutions.

## STRENGTHS AND EXPERTISE

Technical Proficiency	Quality Control	System Architecture
Problem-Solving Skills	Code Quality and Best Practices	Communication
Collaboration and Teamwork	Artificial Intelligence	Cloud Technology

## PROFESSIONAL EXPERIENCE

### Craft Silicon Limited

#### Full-stack engineer

Dec 2023 - Present

Optimized system performance by 30% through strategic enhancements and efficient resource allocation, resulting in significant improvements in overall application responsiveness and user experience.

#### Accomplishments:

- Engineered backend services for a modular Point of Sale (POS) system using Node.js (Express) and TypeScript, ensuring efficient transaction handling, inventory control, and user management.
- Developed responsive, real-time React.js frontends with context-driven state management and RESTful integration, enhancing usability and staff productivity at POS terminals.
- Integrated Apache Kafka to enable real-time communication between services like sales, inventory, and reporting, supporting event-driven architecture across the system.
- Built secure APIs for payment gateway integration and financial reconciliations, ensuring PCI compliance and high availability.
- Enabled seamless ERP integration by developing data bridges for synchronizing inventory, sales, and accounting data with external enterprise systems.
- Used Redis for caching frequently accessed data (e.g., product lists, pricing rules), reducing API response times and database load.
- Leveraged Docker and GitHub Actions to set up robust CI/CD pipelines for automated testing and deployment across staging and production environments.
- Deployed microservices to Azure, utilizing Kubernetes and monitoring tools like Prometheus and Grafana to maintain high uptime and system observability.

### Little Cab Limited

#### Intern Software Developer

August 2023 - November 2023

Contributed as a Software development Intern at Little Cab Limited, actively involved in developing system features, resulting in a notable growth in overall application usability.

#### Accomplishments:

- Collaborated with senior engineers to integrate third-party APIs and payment gateways, contributing to the enhancement of payment processing capabilities within the application.

- Assisted in containerization and deployment using Docker and Kubernetes.
- Applied Test-Driven Development (TDD) methodologies to ensure high-quality, maintainable code with 90%+ test coverage.
- Contributed to knowledge sharing and mentoring within the engineering team.
- Conducted peer code reviews and assisted in identifying areas for optimization and best practice implementation to maintain code quality and readability.

**Zetech University**  
**Software Developer**

**March 2023 - July 2023**

Achieved a lead conversion rate of 10%, resulting in significant growth in student enrollment and retention within Zetech University's CRM system.

**Accomplishments:**

- Led fullstack development of a custom CRM system for Zetech University using Node.js (Express) and React.js, transforming how the university manages course inquiries and student engagement.
- Designed clean, component-driven React interfaces integrated with dynamic backend APIs, enabling administrative staff to track leads, schedule follow-ups, and manage communication effortlessly.
- Created a real-time messaging and notification system using WebSockets and Kafka, improving engagement by keeping staff and students updated instantly on inquiry statuses.
- Collaborated directly with stakeholders to translate university needs into technical specs, iterating quickly to deliver a tailored, user-friendly CRM solution.
- Refactored backend logic for performance and maintainability, implementing best practices like middleware pipelines, modular service layers, and async data handling.
- Boosted system speed by eliminating performance bottlenecks and using Redis for session storage and frequently accessed query caching.
- Containerized the entire app using Docker, and implemented CI/CD via GitHub Actions to streamline updates and version control across environments.

**Dynamic PR**  
**Web Designer**

**March 2020 - Feb 2023**

As a Web Designer for Dynamic PR, I played a key role in conceptualizing and implementing visually stunning and user-friendly web interfaces, elevating the online presence and brand image of the application

**Accomplishments:**

- Designed and developed modern and responsive web interfaces for the Dynamic PR application, ensuring a seamless and engaging user experience across various devices and screen sizes.
- Collaborated closely with the development team and stakeholders to understand project requirements, translate concepts into design mockups, and iterate on feedback to achieve desired outcomes.
- Implemented user interface design best practices, including intuitive navigation, clear hierarchy, and consistent branding elements, to enhance usability and visual appeal.
- Utilized HTML, CSS, JavaScript, to bring design concepts to life, leveraging industry-standard frameworks and libraries to optimize performance and maintainability.
- Conducted usability testing and gathered user feedback to identify areas for improvement, refining designs and iteratively enhancing the user experience based on real-world usage data.

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## **EDUCATION**

**Multimedia Univeristy of Kenya**

Bachelor of Business (Honours) Information Technology.

Sep 2020 - November 2024