### John Kamanu Mwaura

#### Software Developer

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#### PERSONAL STATEMENT

Resourceful Software Developer skilled in full-stack development, microservices, and cloud computing, with a strong problem-solving mindset. As a problem-solver with solid grounding in data-driven applications and programming concepts. Excelled in collaborative environment, significantly improving project delivery times. Demonstrated commitment to professional growth by mastering AWS and Docker, showcasing both technical prowess and adaptability.

## **Key Skills:**

- Backend Java (Spring boot), TypeScript, Nodejs, Asp Net.
- Frontend Angular.
- Database PostgreSQL, MySQL, Mssql, MongoDB.
- DevOps/ Cloud Technologies Docker, AWS

## **Experience:**

## Teach2Give, Nairobi, Kenya – Intern

May – July 2024

- Designed RESTful APIs for seamless integration between frontend components and backend services for web applications.
- Delivered high-quality code documentation following industry standards to facilitate future maintenance or enhancements by other developers within the team.
- Collaborated with cross-functional teams to deliver software projects on time within budget constraints.
- Optimized database performance with integration of SQL and NoSQL databases in application development

#### **EDUCATION:**

## Chuka University, Kenya – Bachelor of Science, Computer Science

SEPT 2021 – DEC 2025

## **Projects:**

# Microservices-Based E-Learning Platform with Real-Time Payment and Notification System.

- Frontend Development: Developed user-friendly and dynamic web applications using Angular, ensuring seamless interaction with backend services through API Gateway for smooth routing and data flow.
- Backend Development: Built scalable and robust Spring Boot microservices, focusing on User, Course, Enrolment, and Payment services to handle different business logic. Integrated these services to communicate via Kafka for asynchronous message processing.
- Databases: Designed and implemented data storage solutions using MongoDB for user data and PostgreSQL for course-related information, ensuring data integrity and optimized access.
- API Gateway: Implemented a centralized API Gateway to route client requests to appropriate microservices, streamlining communication and improving system performance.
- Service Communication: Utilized Apache Kafka as a message broker for decoupling microservices and handling asynchronous processes such as payment processing and order confirmations.
- Distributed Tracing & Observability: Integrated Zipkin for distributed tracing to monitor, track, and optimize microservice communication, ensuring high system availability and performance.

#### Ticketing System (Angular, Node.js)

- **Frontend Development**: Developed a responsive and intuitive user interface using **Angular**, allowing users to easily create, track, and manage support tickets. Implemented features like dynamic ticket status updates, real-time notifications, and user dashboards for seamless interaction.
- Backend Development: Built the backend using Node.js and Express to handle API requests, manage ticket data, and facilitate communication between the frontend and the database. Designed RESTful APIs for CRUD operations on tickets, users, and agents.
- **Database Integration**: Utilized **MongoDB** to store ticket details, user data, and ticket status information, ensuring efficient data retrieval and updates in real-time.
- Authentication & Authorization: Implemented JWT (JSON Web Tokens) for secure user authentication and role-based access control, allowing users, agents, and admins to have different levels of access to the system.

- Real-Time Communication: Integrated Socket.io for real-time updates on ticket status changes and new message notifications, improving user experience and responsiveness.
- **Admin Dashboard**: Developed a comprehensive admin dashboard for ticket monitoring, user management, and performance analytics, empowering administrators to manage and prioritize incoming tickets efficiently.

#### **Certifications**

## Responsive Web Design Certifications Free Code Camp, 2024

Developed expertise in designing responsive web applications. Focused on HTML, CSS, and JavaScript to create seamless experiences across desktop, tablet, and mobile platforms. Link Here

## Building Scalable Microservices Using Spring Boot, Google Cloud, 2025

Completed a comprehensive training in designing and deploying **scalable microservices** using **Spring Boot** on **Google Cloud**. The training covered key concepts such as REST API communication, service discovery, and centralized configuration management. I gained hands-on experience in utilizing Google Cloud's infrastructure, load balancing, and monitoring tools to ensure high availability, performance, and scalability, preparing me to build resilient microservices architectures for real-world applications. Link Here

#### **VOLUNTEERING & COMMUNITYINVOLVEMENT**

# Atlassian Community, Meru ACE - Member April 2024 – Present

- Leverage and learn the best practices to use Atlassian Tools for a streamlined project management and team collaboration e.g Jira
  - Developed Strong teamwork skills