

Edwin Ogola

Full Stack Software Engineer

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LinkedIn | GitHub | Portfolio

Professional Summary

Results-driven Full Stack Software Engineer with over 4 years of experience (since March 2021) delivering scalable, high-performance web and mobile applications. Specialized in fintech solutions and M-Pesa integration, achieving a 35% sales increase and 30% conversion rate improvement for e-commerce platforms. Proficient in JavaScript, React.js, Node.js, Python, and MongoDB, with expertise in AI/ML for East African markets and mobile-first development. Adept at optimizing applications for performance and scalability, reducing load times by 40% and enhancing user retention by 25%.

Technical Skills

- **Programming Languages:** JavaScript (ES6+), TypeScript, Python, HTML5, CSS3, SQL
- **Frontend Development:** React.js, React Native, Redux, Vue.js, Angular, Responsive Web Design, Mobile-First Development, CSS3, SASS/SCSS, Bootstrap, Tailwind CSS, Material-UI, Progressive Web Applications (PWA), Single Page Applications (SPA)
- **Backend Development:** Node.js, Express.js, Django, Flask, RESTful APIs, GraphQL, Microservices Architecture, API Development, Server-Side Rendering
- **Databases & Data Management:** MongoDB, MySQL, PostgreSQL, Firebase, Redis, Database Design, Query Optimization, Data Modeling
- **Cloud & DevOps:** Amazon Web Services (AWS: Lambda, S3, EC2, RDS, CloudFormation), Docker, Kubernetes, CI/CD Pipelines, GitHub Actions, Jenkins, Infrastructure as Code, Container Orchestration, Cloud Architecture
- **Payment Integration & Fintech:** M-Pesa API Integration, PayPal API, Stripe, Mobile Money Solutions, Payment Gateway Integration, Financial APIs, Security Compliance
- **AI & Machine Learning:** TensorFlow, scikit-learn, Natural Language Processing (NLP), OpenAI APIs, Machine Learning Models, Recommendation Systems, Data Analysis, Predictive Analytics
- **Development Tools & Methodologies:** Git, GitHub, Version Control, Agile/Scrum, Jira, Trello, Jest, Unit Testing, Integration Testing, Test-Driven Development (TDD), Webpack, Babel, NPM, Yarn, Package Management, Postman, API Testing, Documentation

Professional Experience

Freelance Full Stack Developer

March 2021 – Present

Self-Employed, Remote

- Developed 15+ responsive full-stack web applications for Kenyan businesses using JavaScript, React.js, Node.js, and MongoDB, achieving 99.9% uptime.
- Built a custom e-commerce platform with M-Pesa integration, increasing online sales by 35% and improving conversion rates by 30%.

- Optimized application performance through caching strategies and database query optimization, reducing load times by 40% and boosting user retention by 25%.
- Architected scalable microservices using Node.js, Express.js, and MongoDB, deployed on AWS (S3, EC2, Lambda) with auto-scaling capabilities.
- Implemented Redux and Context API for state management in complex single-page applications (SPAs).
- Designed mobile-first applications for low-bandwidth environments, enhancing accessibility for East African markets.
- Managed Agile project lifecycles using Jira and Trello, delivering projects 15% under estimated timelines with 100% client retention.

Software Engineer Intern

February 2023 – August 2023

RealBiz Digital, Remote

- Developed web applications using React.js, Node.js, and Express.js, increasing user engagement by 20% through optimized UI/UX.
- Built and deployed RESTful APIs with MongoDB, reducing data retrieval times by 30% via query optimization.
- Created responsive UI/UX designs, contributing to a 10% increase in user satisfaction scores.
- Optimized applications for East African markets, improving user retention by 15% through mobile-first design.
- Achieved 95% issue resolution rate within Agile/Scrum sprint timelines using Jest and React Testing Library.
- Collaborated with cross-functional teams to implement CI/CD pipelines, reducing deployment times by 25%.

Key Projects

SafariPay – Fintech Payment Platform

Portfolio Link

- Developed a fintech platform reducing cross-border transaction times by 45% using M-Pesa and PayPal APIs.
- Implemented end-to-end encryption and two-factor authentication for enhanced security compliance.
- Built a responsive analytics dashboard with real-time transaction monitoring for mobile-first users.
- Technologies: React.js, Node.js, Express.js, MongoDB, M-Pesa API, PayPal API, JWT Authentication.

AI-Powered Customer Support Chatbot

Portfolio Link

- Engineered an AI-powered chatbot with 95% query resolution accuracy for a Kenyan e-commerce platform.
- Reduced customer support response times by 40% using NLP and TensorFlow-based models.

- Features included automated order tracking, product recommendations, and query resolution.
- Technologies: Python, TensorFlow, NLP, Flask, REST API, MongoDB.

E-Commerce Platform with Recommendation Engine

Portfolio Link

- Built an e-commerce platform with an ML-powered recommendation engine, increasing average order value by 25%.
- Designed for mobile-first usage, catering to 80% of target market traffic.
- Implemented user authentication, order tracking, and inventory management with M-Pesa integration.
- Technologies: React.js, Node.js, Express.js, MongoDB, Redux, scikit-learn, M-Pesa API.

Microservices Architecture with CI/CD Pipeline

Portfolio Link

- Designed containerized microservices using Docker and Kubernetes for scalability and 99.9% uptime.
- Implemented GitHub Actions CI/CD pipeline with automated testing and deployment.
- Configured Prometheus and ELK stack for system observability and logging.
- Technologies: Docker, Kubernetes, GitHub Actions, Node.js, MongoDB, Prometheus, Jest.

Education

Bachelor of Arts in Political Science and Literature

Expected Graduation: 2025

University of Nairobi

- Applied analytical research methodologies to software development projects.
- Led technical workshops as part of the university computer society, enhancing leadership skills.
- Developed problem-solving skills for complex technical challenges.

Software Engineering Program

May 2022 – November 2022

Moringa School

- Completed 900+ hour intensive full-stack development bootcamp with a 95% completion rate.
- Built a task management application reducing manual processes by 40%.
- Mastered JavaScript, React.js, and Node.js through hands-on projects and pair programming.

ALX Software Engineering Program

February 2023 – September 2023

ALX Africa

- Selective program focusing on Python, algorithms, and system design.
- Developed an ML-based recommendation engine, increasing user engagement by 25%.
- Collaborated on distributed projects with international teams using Agile methodologies.

Certifications

- AWS Cloud Practitioner (2023)
- AWS Solutions Architect Associate (Target: 2024)

- Google Cloud Platform Fundamentals (2023)
- FreeCodeCamp Responsive Web Design (2022)
- React Developer Certification (2023)
- Git & GitHub for Version Control (2023)
- Scrum Master Certification (Target: 2024)

Additional Achievements

- GitHub Contributions: 2,478+ commits in the last year, showcasing consistent software development practice.
- Technical Writing: Authored 5 tutorials on Medium covering JavaScript, React.js, and web development.
- Community Involvement: Active member of Nairobi JavaScript Community, leading workshops on React.js and Node.js.
- Client Satisfaction: Maintained 100% client retention rate as a freelance developer.
- Code Quality: Achieved 95%+ test coverage across all major projects using Jest and TDD.
- Volunteer Work: Developed pro bono web application for a Kenyan non-profit, improving donor engagement by 20%.
- Languages: Fluent in English and Swahili, enhancing communication with diverse teams.