

MICHAEL MOKUA

Full-Stack Developer & ML Enthusiast

Building digital solutions that matter. From AI-powered healthcare tools to agricultural marketplaces, I transform ideas into functional, user-centered applications.

[View Portfolio →](#)

CONTACT

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CONNECT

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AVAILABILITY

🚀 3-month attachment

📅 Starting January 2025

01 Education

Bachelor of Science in Information Technology

Expected Graduation: December 2026 | Year 4.2 Completed



A comprehensive program covering the full spectrum of modern software development, from foundational computer science principles to cutting-edge technologies in web development, machine learning, and mobile applications.

Core Competencies: Software Engineering • Database Systems • Web Development • Machine Learning • Data Structures & Algorithms • Mobile App Development

02 Featured Projects

Agri Value Connect

Marketplace

Next.js TypeScript React Tailwind CSS

- ▶ Architected a full-featured digital marketplace bridging the gap between agricultural producers and consumers
- ▶ Engineered secure authentication and role-based authorization systems protecting user data and transactions
- ▶ Developed dynamic CRUD operations enabling sellers to effortlessly manage product listings
- ▶ Crafted an intuitive, responsive interface optimizing the buyer-seller experience across all devices
- ▶ Integrated real-time database synchronization for instant marketplace updates and notifications

Breast Cancer AI Detector

Healthcare ML

Python

Scikit-learn

Pandas

NumPy

- ▶ Developed an AI-powered diagnostic system achieving 80% accuracy in breast cancer detection
- ▶ Implemented and benchmarked six classification algorithms (Decision Tree, Random Forest, SVM, KNN, Naive Bayes, Logistic Regression) to identify optimal performance
- ▶ Executed comprehensive data preprocessing and feature engineering using Pandas and NumPy
- ▶ Generated detailed evaluation metrics including confusion matrices and classification reports for medical validation
- ▶ Deployed end-to-end ML pipeline from data ingestion to model serialization using pickle

Custom Web Solutions

Client Work

React

Next.js

HTML/CSS

- ▶ Delivered professional websites for educational institutions and corporate clients, meeting diverse business requirements
- ▶ Designed and deployed personalized portfolio websites showcasing individual client brands and achievements
- ▶ Implemented fully responsive layouts ensuring seamless experiences across desktop, tablet, and mobile devices
- ▶ Prioritized accessibility and performance optimization, achieving fast load times and high lighthouse scores

03 Technical Arsenal

Languages

Python • JavaScript • Java • C++ •
HTML • CSS

Frontend Stack

React • Next.js • TypeScript •
Tailwind CSS

Backend & Databases

MySQL • PostgreSQL • MongoDB •
Supabase • Firebase

Data Science & ML

Pandas • NumPy • Scikit-learn •
Model Evaluation • Classification
Algorithms

Development Tools

Git • GitHub • Vercel • VS Code

Mobile & Other

Android Development • RESTful
APIs • Responsive Design

04 What I Bring



Quick Learner

I rapidly absorb new technologies and frameworks, staying ahead of industry trends and adapting to



Creative Problem Solver

I approach challenges from unique angles, developing innovative solutions that balance functionality with

evolving development landscapes.



user experience.



Technical Excellence

I write clean, maintainable code with a focus on performance optimization and best practices in software architecture.

Team Collaboration

Experienced in agile workflows and version control, I thrive in collaborative environments and value clear communication.

05 Experience

Collaborative Academic Projects

Team Work

- ▶ Led and contributed to multiple software development projects throughout university, from inception to deployment
- ▶ Applied agile methodologies and participated in sprint planning, code reviews, and retrospectives
- ▶ Leveraged Git for version control, managing branches, pull requests, and resolving merge conflicts
- ▶ Demonstrated strong communication skills, translating technical concepts for diverse team members

LANGUAGES

English (Fluent)
Swahili (Fluent)

WORK STATUS

Kenyan Citizen
Ready to relocate

REFERENCES

Available upon request