

# DUKE NYAMONGO

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## PROFESSIONAL SUMMARY

Senior Full Stack Engineer with 7+ years of experience building scalable web solutions using Python, Flask, React, and Vue.js. Proven record in enhancing operational efficiency through AWS, Terraform, and Docker deployments while ensuring performance and security. Adept at end-to-end ownership, from design and integration to full system automation in fast-paced environments.

## TECHNICAL SKILLS

- **Languages:** Python, JavaScript, TypeScript, SQL
- **Frameworks:** Django, Flask, FastAPI, Express.js, React.js, Node.js
- **Databases:** PostgreSQL, MySQL, MongoDB, Redis
- **Cloud/DevOps:** AWS (S3, EC2, Lambda, CloudWatch), Docker, Kubernetes, CI/CD (CircleCI)
- **Tools:** Git, Nginx, Apache Airflow, RabbitMQ, Pytest, Jest, Ansible, Vagrant, Linux, Jenkins, Terraform, GitOps
- **Architecture & APIs:** RESTful APIs, SaaS Architecture

## PROFESSIONAL EXPERIENCE

### Safaricom PLC

Mar 2023 - Jun 2025

*CBS Product Development Engineer*

Nairobi, Kenya

Engineered and deployed 6+ new products within 4 months, ensuring robust backend integrations and improving billing accuracy by 20%.

- Executed comprehensive System Integration Tests (SIT) and User Acceptance Testing (UAT) to resolve 15+ critical customer issues.
- Collaborated with cross-functional teams to refine user-centric features and streamline end-to-end product delivery.
- Utilized Linux/Unix and advanced database management techniques to maintain system performance and data integrity.

### Springboard

Jun 2022 - Jun 2025

*Software Engineer Mentor*

Remote, USA

Mentored 30+ students in full stack development, emphasizing end-to-end project ownership from design through deployment.

- Guided hands-on projects in Python (Flask) and React, fostering skills in backend development and frontend interface creation.
- Reviewed and enhanced student projects by evaluating RESTful API integrations, monitoring practices, and scalable architectural decisions.
- Cultivated a collaborative and high-autonomy learning environment through online forums, webinars, and group discussions.

### Data Integrated Limited

May 2022 - Dec 2022

*Senior Backend Software Engineer*

Nairobi, Kenya

Developed a data analysis platform using Python and Django, emphasizing backend performance and secure API integrations.

- Architected scalable AWS-based data infrastructure (S3, EC2, Redshift) that reduced data processing time by 30%, aligning with cloud deployment best practices.
- Automated workflows with Apache Airflow to improve operational efficiency by 25%, incorporating instrumentation principles for monitoring.
- Deployed machine learning models with Docker and Kubernetes, ensuring real-time inference along with robust monitoring.

### Uzaonline

Jan 2021 - Apr 2022

*Software Engineer*

Nairobi, Kenya

Engineered a directory listing system using React.js and Django, delivering an enhanced end-to-end user experience and improving site NPS by 50%.

- Automated backend API deployments via AWS Lambda and CircleCI, reducing deployment time by 40% and promoting reliable CI/CD pipelines.
- Designed RESTful APIs with Django Rest Framework, ensuring efficient integration and backend performance monitoring.
- Conducted rigorous unit testing with Pytest to reduce buggy features by 90%, reinforcing quality assurance from deployment onward.

### Kodi Mobile Limited

Jul 2019 - Dec 2020

*Software Engineer*

Nairobi, Kenya

Developed a financial data visualization dashboard using React.js and Django, delivering intuitive user interfaces and enhancing stakeholder decision-making.

- Optimized database queries to achieve 20% faster response times, maintaining performance across both front-end and backend systems.
- Collaborated with cross-functional teams to deploy cloud-based web applications on AWS, emphasizing secure and scalable infrastructure management.

### Sky-Swift Limited

Jun 2018 - Jun 2019

*Backend Software Engineer*

Nairobi, Kenya

Contributed to the development of a hotel booking engine using Django and FastAPI, integrating essential payment and flight booking features.

- Advanced technical aptitude and leadership through consistent delivery in high-autonomy, full stack development environments.

## **Lokyatech Limited**

**Mar 2017 - Dec 2017**

### *Data Analyst*

*Nairobi, Kenya*

Conducted exploratory data analysis (EDA) and developed data visualizations with Python and Tableau, supporting data-driven decision-making.

- Assisted in data mining and machine learning model development, improving predictive accuracy by 15% and reinforcing backend data processing.

## **EDUCATION**

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### **Jomo Kenyatta University of Agriculture and Technology(JKUAT)**

*BSc., Mathematics and Computer Science*

### **St. Anne's College**

**2017**

*ICS Certificate, Computing*

## **PROJECT HIGHLIGHTS**

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### **Telemedicine Platform (MediSawa)**

- Built authentication, doctor management, and booking services using Django, PostgreSQL, and React.

### **Automated USSD Billing System**

- Integrated Flask, Oracle DB, and PDF reporting for seamless telco billing automation.

### **AI-Powered Data Processing Pipelines**

- Developed scalable ML model deployment using Kubeflow and Seldon.

## **ACHIEVEMENTS**

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- Successfully deployed 3+ products at Safaricom within 4 months, exceeding customer expectations.
- Improved billing accuracy by 20% through meticulous configuration and testing.
- Increased site NPS by 50% at Uzaonline by optimizing RESTful API integration.
- Mentored 30+ students at Springboard, achieving a 67% increase in technical proficiency.