

# DUKE NYSASANI NYAMONGO

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## Professional Summary

I would like to describe myself as a highly skilled backend engineer with over 7 years of experience in Python, Django, JavaScript, and Node.js/Express.js development. Proficient in frontend technologies including React.js, HTML, and CSS. Possesses strong Linux expertise and a solid foundation in database management with PostgreSQL and SQL.

Experienced in leading diverse projects across industries, from sophisticated Hotel and Flight Booking Engines to intuitive Classified Listing platforms and CRM Systems. Known for a collaborative approach to teamwork, driving synergies within teams to deliver superior quality outcomes efficiently.

A disciplined and organized professional with a proven track record of meeting deadlines without compromising on quality. Passionate about success and committed to excellence, consistently striving for outstanding results in all endeavors. Ready to contribute expertise and drive to any team or project.

## Experience

### CBS PRODUCT DEVELOPMENT ENGINEER | 03/2023 – Current

#### **Safaricom PLC**, Hybrid, Nairobi, Kenya

Reporting to the Billing Engineering Tech Lead, I collaborated closely with Revenue Management and Product Development teams to innovate, design, configure, and deploy new products and services. I ensured quality assurance through meticulous configuration, comprehensive user acceptance testing (UAT), and provided valuable insights to enhance the customer experience and journey.

- Participated in all phases of the product development life cycle, contributing technical insights. Successfully deployed over 3 new products and services within 4 months, meeting tight deadlines and exceeding customer expectations. Leveraged strong Linux/Unix skills for optimal performance.
- Configured new products and services aligned with business requirements and technical specifications. Contributed to a 20% improvement in billing accuracy through meticulous configuration and testing. Utilized strong database skills for data accuracy and integrity.
- Reviewed and contributed to comprehensive test cases, tailored to specific services. Identified and resolved 10 critical customer-related issues, enhancing satisfaction. Demonstrated strong analytical and problem-solving abilities.

- Executed System Integration Tests (SITs) and supported User Acceptance Testing (UAT) for new products. Ensured quality and accuracy of billing processes, promptly resolving customer issues.
- Collaborated closely with team members, sharing knowledge and ideas. Demonstrated a team player mindset, showcasing exceptional organizational skills.

#### **SOFTWARE ENGINEER MENTOR | 06/2022 – Current**

**Springboard** – Remote, USA, San Francisco

As a Mentor at Springboard, I provided personalized guidance and support to aspiring software engineers, facilitating their learning journey and empowering them to achieve their career goals.

- **Mentorship:** Offered tailored mentorship to students enrolled in software engineering courses, providing guidance, feedback, and encouragement to help them overcome challenges and excel in their studies. Guided over 30 students through their software engineering journey, witnessing 67% increase in their technical proficiency and confidence.
- **Technical Assistance:** Assisted students in understanding complex technical concepts, troubleshooting coding issues, and completing project assignments, ensuring a thorough comprehension of software engineering principles and practices.
- **Feedback and Evaluation:** Reviewed student projects, assignments, and assessments, offering constructive feedback and actionable insights to help students improve their skills and enhance their portfolio.
- **Community Engagement:** Actively engaged with the Springboard community through online forums, webinars, and group discussions, fostering a collaborative and supportive learning environment for students to connect, share knowledge, and network with industry professionals.
- **Communication and Collaboration:** Demonstrated strong communication skills to effectively convey complex technical concepts and provide clear and concise feedback. Fostered a supportive and inclusive learning environment, encouraging collaboration, creativity, and continuous growth among students.
- **Technical Proficiency:** Leveraged expertise in software development skills such as Python (Flask), HTML, CSS, React, and databases (SQL, NoSQL) to effectively mentor students. Applied deep understanding of software engineering principles, practices, and technologies to provide hands-on guidance in building robust and scalable applications.

#### **SENIOR BACKEND SOFTWARE ENGINEER | 05/2022 – 12/2022**

**Data Integrated Limited** – Nairobi, Kenya

- **Innovative Data Analysis Platform Development:** Spearheaded the development of an innovative data analysis platform utilizing Python, Django, and PostgreSQL. Implemented advanced data processing algorithms and visualization tools to empower users with actionable insights, enhancing decision-making processes.

- **Scalable Data Infrastructure Solutions:** Architected scalable data infrastructure solutions leveraging AWS services such as S3, EC2, and Redshift. Designed and implemented data pipelines for efficient data ingestion, processing, and storage, ensuring high performance and reliability for large-scale data analytics.
- **Automated Data Processing Workflows:** Implemented automated data processing workflows using Apache Airflow, reducing manual efforts and improving operational efficiency. Orchestrated complex data workflows, including data extraction, transformation, and loading (ETL) processes, streamlining data management tasks.
- **Machine Learning Model Deployment:** Led the deployment of machine learning models into production environments using Docker and Kubernetes. Implemented model serving pipelines for real-time inference and monitoring, enabling seamless integration of machine learning capabilities into business applications.
- **Data Governance and Security:** Established robust data governance and security measures to ensure data privacy and compliance with regulatory requirements. Implemented access control mechanisms, encryption techniques, and auditing processes to safeguard sensitive data and mitigate security risks.
- **Cross-functional Collaboration:** Collaborated closely with cross-functional teams, including data engineers, data scientists, and business stakeholders, to understand requirements and deliver innovative data solutions. Provided technical guidance and mentorship to team members, fostering a culture of collaboration and continuous learning.

**SOFTWARE ENGINEER** | 01/2021 – 04/2022

**Uzaonline** – Nairobi, Kenya

- **Advanced Directory Listing System Development:** Engineered a cutting-edge directory listing system using a tech stack comprising JavaScript (ReactJs), Python, Django, and PostgreSQL. The system boasts advanced functionalities like version control, workflow management, and user permissions, optimizing the content creation and publication workflows.
- **Scalable and Secure Web Applications:** Leveraged the power of the Django framework, AWS Lambda, and Docker to construct scalable and highly secure web applications. These applications cater to diverse clientele, including e-commerce platforms and content management systems, ensuring robust performance and data protection.
- **Efficient Cloud-Based Deployment:** Harnessed the capabilities of cloud services like AWS, Google Cloud (GCP), and CircleCI to automate the deployment of backend APIs. Additionally, skillfully configured Nginx as a reverse proxy to efficiently manage server

traffic. Implemented AWS CloudWatch for real-time monitoring of backend applications hosted in the cloud, ensuring optimal performance and reliability.

- **RESTful API Integration:** Played a pivotal role in the design and implementation of RESTful APIs using Django Rest Framework. This facilitated seamless integration of backend functionalities with user interfaces, enhancing overall application efficiency and user experience increasing the site's NPS by 50%.
- **Rigorous Testing and Quality Assurance:** Conducted comprehensive unit testing using Pytest and actively participated in the quality assurance processes reducing buggy features by 90%

**SOFTWARE ENGINEER** | 07/2019 – 12/2020

**Kodi Mobile Limited** – Nairobi, Kenya

- **Interactive Financial Data Visualization:** Developed a dynamic data visualization dashboard employing Django, FastAPI, Postgresql, and JavaScript (ReactJs) libraries. This dashboard effectively presents intricate financial data in an intuitive and interactive manner, empowering stakeholders with the insights needed for well-informed decision-making.
- **Cloud-Based Web Application Expertise:** Played a pivotal role in the development and enhancement of cloud-based web applications by harnessing the robust Django and Flask frameworks, alongside FastAPI, in conjunction with AWS services. This synergy ensured the creation of scalable, secure, and high-performing web solutions.
- **Cross-Functional Collaboration:** Collaborated seamlessly with cross-functional teams, including frontend developers and QA engineers, to deliver feature-rich applications that precisely matched client requirements. This approach ensures the alignment of technology solutions with business needs, utilizing frameworks such as Django, Flask, FastAPI, and Node.js/Express.js.
- **Database Optimization for Scalability:** Demonstrated expertise in designing and implementing intricate database models while optimizing query performance. These efforts yielded improved scalability and responsiveness, critical for handling large financial datasets efficiently, leveraging technologies like Postgresql and MongoDB.
- **Code Quality Stewardship:** Maintained a strong commitment to code quality by conducting regular code reviews, providing constructive feedback, and mentoring junior developers. This dedication promoted best coding practices and upheld high code quality standards across frameworks like Django, Flask, FastAPI, and Node.js/Express.js.
- **Robust Testing and Quality Assurance:** Executed thorough unit testing with Pytest, Jest, and Mocha, and actively participated in comprehensive quality assurance processes.

These measures ensured that the developed applications consistently delivered robustness and reliability, instilling confidence in both clients and end-users.

**BACKEND SOFTWARE ENGINEER** | 06/2018 – 06/2019

**Sky-Swift Limited** – Nairobi, Kenya

- **Hotel booking Engine Development:** Actively contributed to the development of a dynamic hotel booking engine utilizing Python, Django, FastAPI, and PostgreSQL. Integrated key features, such as user authentication, hotel search, booking, payment, and flight booking, resulting in a comprehensive and engaging online hotel reservation experience.
- **Rapid Career Advancement:** Commenced as a junior developer and quickly advanced to the role of a mid-level developer. Demonstrated exceptional aptitude and commitment to technology, achieving significant career progression within a short timeframe, while mastering frameworks like Django, FastAPI, and Flask.
- **Multi-Industry Software Solutions:** Collaborated effectively within a team of developers to conceptualize and develop robust software solutions catering to diverse industries, including healthcare and finance. This versatile approach showcases the ability to apply technology solutions across various sectors, leveraging frameworks such as Django, FastAPI, Flask, and Node.js/Express.js.
- **Python Application Implementation:** Proficiently implemented and maintained Python-based applications, consistently adhering to industry standards and best practices. Ensured the longevity and reliability of software products through rigorous adherence to coding standards, utilizing frameworks like Django, FastAPI, Flask, and Node.js/Express.js.
- **Code Quality Enhancement:** Actively participated in code reviews, addressing identified issues, resolving bugs, and optimizing performance across frameworks like Django, FastAPI, Flask, and Node.js/Express.js. These contributions significantly enhanced the overall efficiency and stability of software products, elevating the quality of deliverables to clients.

**DATA ANALYST INTERN** | 03/2017 – 12/2017

**Lokyatech Limited** – Nairobi, Kenya

As a Data Analyst Intern, I had the opportunity to contribute to various projects and gain valuable experience in analyzing and interpreting data. Here's an overview of my role and responsibilities:

- **Data Analysis:** I conducted exploratory data analysis (EDA) to gain insights into datasets, identify trends, and extract meaningful information. This involved cleaning and preprocessing data, performing statistical analysis, and visualizing results using tools such as Python, R, or SQL.
- **Data Visualization:** I created visually compelling dashboards and reports to communicate key findings and insights to stakeholders. By leveraging visualization tools like Tableau, Power BI, or matplotlib/seaborn in Python, I effectively conveyed complex data in an understandable format.
- **Statistical Modeling:** I applied statistical techniques to analyze data and uncover relationships between variables. This included regression analysis, hypothesis testing, and clustering methods to identify patterns and trends within the data.
- **Data Mining and Machine Learning:** I explored machine learning algorithms to develop predictive models and make data-driven recommendations. This involved tasks such as feature engineering, model training and evaluation, and model deployment using libraries like scikit-learn or TensorFlow.
- **Data Management:** I assisted in data collection, organization, and management to ensure data integrity and accessibility. This included data cleaning, data wrangling, and database querying using SQL or other data manipulation tools.
- **Collaboration and Communication:** I collaborated with cross-functional teams to understand project requirements and deliver actionable insights. I effectively communicated findings and recommendations to stakeholders through presentations, reports, and data-driven narratives.

## Education

ST. ANNE'S COLLEGE – Nairobi | ICS Certificate in Computing

### Information Computing Sciences, 2017

I completed my ICS3 computer packages and computer related certificate course where I covered the Microsoft Office packages, Linux, basic computing, computer hardware and software introduction.

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY – Nairobi |  
BSCs. Mathematics and  
Computer Science.

### COMPUTER SCIENCE, 2016

I got a second upper degree in BSc. Mathematics and Computer science from JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY(JKUAT).

CERTIFICATE: **KCSE (Kenya Certificate of Secondary Education)**

**MY SKILLS (Frameworks and Languages)**

<ul style="list-style-type: none"><li>• DJANGO</li><li>• Flask</li><li>• FASTAPI</li><li>• EXPRESS JS</li><li>• REST APIs</li><li>• PYTHON</li><li>• HTML</li><li>• CSS</li><li>• MONGODB</li><li>• REDIS</li><li>• RABBITMQ</li><li>• REACT JS</li><li>• DOCKER</li><li>• KUBERNETES</li><li>• AZURE</li></ul>	<ul style="list-style-type: none"><li>• FASTAPI</li><li>• EXPRESS JS</li><li>• REST APIs</li><li>• FASTAPI</li><li>• JAVASCRIPT</li><li>• TYPESCRIPT</li><li>• LINUX</li><li>• SQL</li><li>• LINUX ADMINISTRATION</li><li>• NODE.JS</li><li>• GIT</li><li>• SYSTEM ADMINISTRATION</li><li>• MYSQL</li><li>• AWS (Amazon Web Services)</li><li>• POSTGRESQL</li></ul>
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