

Nicholas Eke

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SUMMARY

Creative and results-driven Software Developer and AI/ML Engineer with hands-on experience in full-stack development, real-time machine learning deployment, and RESTful API integration. Proficient in Python, JavaScript, TensorFlow, and Flask, with a strong foundation in data structures and problem-solving. Proven ability to deliver scalable solutions and collaborate across teams to build innovative, user-centric applications.

EDUCATION

African Leadership University, Kigali, Rwanda

Bachelor of Science, Software Engineering

May 2023 – Present

- Focused on full-stack development, data structures, algorithms, and real-world software challenges
- Relevant Coursework: Full-Stack Web Development, AI Integration, Data Structures, Systems Design
- Leadership development and self-directed learning core to the curriculum

TECHNICAL SKILLS

Languages: Python, JavaScript, SQL, Shell, HTML, CSS, JSON

Frameworks/Libraries: Flask, React, TensorFlow, scikit-learn, OpenCV, NumPy, Pandas

Tools & Platforms: Git, Jupyter Notebook, PostgreSQL, REST APIs, Docker

Specialties: Full-Stack Development, Machine Learning, Computer Vision, API Integration, Data Analytics

PROJECT EXPERIENCE

Criminal Detection & Facial Recognition System

- Engineered a real-time facial recognition system using TensorFlow and OpenCV for live video feeds
- Built a Flask-based backend to handle image processing and integrated JSON API for communication
- Applied computer vision techniques to enhance detection accuracy in security contexts

Healthcare Menu-Driven Application

- Designed an interactive Python-based system connecting healthcare providers, job seekers, and patients
- Integrated Flask for backend operations with user authentication and data persistence
- Delivered a user-friendly UI with JavaScript and CSS for smooth interaction

YouTube Clone

- Developed a full-stack web platform mimicking core YouTube features using React and Flask
- Enabled video uploads, playback, and streaming via cloud storage APIs
- Emphasized responsive UI/UX design for seamless user experience

Airbnb Clone

- Built a property listing and booking website using Flask and React
- Implemented PostgreSQL for data management of user profiles, listings, and reservations
- Integrated features including authentication, search filters, and dynamic maps

AQI Prediction App (Flutter + FastAPI)

- Developed a cross-platform mobile application using Flutter and FastAPI to predict Air Quality Index (AQI) in real time
- Implemented a machine learning model to forecast air quality from environmental data, deploying it via a FastAPI backend for efficient predictions
- Designed an intuitive interface for visualizing air quality trends and alerts, ensuring a seamless user experience and enhancing awareness of environmental conditions

EmpowerHer Tales App

- Built the complete profile page for a mobile storytelling platform designed to amplify underrepresented voices, using Flutter for the interface and implementing backend services for user data and content management
- Integrated the Flutter frontend with backend APIs for user authentication and content management, ensuring real-time updates and a responsive user experience

- Optimized the user experience by streamlining the profile setup and navigation flow, and led the development of this feature from initial design collaboration through deployment

PROFESSIONAL EXPERIENCE

Software Engineering & AI Intern

Remote | February 2024 – August 2024

- Developed end-to-end web applications and contributed to video streaming and rental platforms
- Deployed machine learning models using Flask for real-time AI-powered solutions
- Created secure RESTful APIs, bridging frontend and backend systems

Software Developer Intern

African Leadership University | Kigali, Rwanda | February 2024 – August 2024

- Debugged and optimized core internal applications used by students and staff
- Researched and evaluated AI-driven educational tools to support learning outcomes

Planning Committee Member – Health Entrepreneurship Hackathon

African Leadership University | February 2024

- Coordinated logistics and planning for a student hackathon focused on healthcare innovation
- Mentored participants on software engineering practices and AI implementation

ADDITIONAL INFORMATION

Soft Skills: Effective communication, problem-solving, teamwork, adaptability, continuous learning

Languages: English (Fluent)

Portfolio: Available upon request or via LinkedIn profile