

# JAMES NDUBUISI

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## TECHNICAL SKILLS

Programming Languages: Python, JavaScript, SQL, NoSQL.

Machine Learning frameworks: TensorFlow, PyTorch, Scikit-learn.

Data Analysis and Visualization: Pandas, Excel, Tableau, Power BI, Matplotlib, Seaborn, Bokeh, Plotly, ArcGIS

Databases: PostgreSQL, MongoDB, MySQL.

Cloud: AWS, Oracle Cloud, Azure.

Backend frameworks: Django, Express.

Application Monitoring: Dynatrace, Datadog.

## EXPERIENCE

### Nathan Claire International.

2021-2023

Empowered business growth through data-driven insights and automation.

Key Achievements:

- Reduced bounce rates for client companies by about 20% by creating actionable business dashboards using data APIs, Tableau, SQL, and Dynatrace.
- Guided pan-African banks in efficient incident resolution through deterministic artificial intelligence and data-driven analysis, leading to increased uptime and customer satisfaction. This also involved automated problem resolution by integrating Ansible with other business solutions, improving operational efficiency and reducing costs.
- Successfully deployed comprehensive monitoring solutions (Dynatrace and Datadog) on client infrastructure, ensuring optimal performance and proactive issue identification. This also involved developing custom Dynatrace extensions using Python to address unique client needs and enhance monitoring capabilities.

### Akwa Ibom State Polytechnic Ikot-Osurua.

2019-2020

Streamlined data analysis and reporting, boosting efficiency and clarity:

- Reduced compilation time by 50% through automation with scripts in Microsoft Excel and Word, freeing up valuable time for more strategic tasks.
- Enhanced data analysis accuracy and efficiency by performing statistical analysis and generating clear, informative graphs and charts for textbooks.
- Improved data utilisation and communication by translating raw data into insightful visualizations and reports, promoting understanding and informed decision-making.

### Tenecé Professional Services.

2017

Full-stack developer with a passion for automation and efficiency.

- Developed Python applications leveraging powerful libraries for data manipulation and analysis.
- Utilized SQL to interact with databases, ensuring data integrity and accessibility.
- Implemented JavaScript to create interactive and responsive web interfaces.
- Embraced Selenium to automate repetitive tasks, saving time and resources.

## EDUCATION

### Heriot-Watt University, Edinburgh

2024

MSc Artificial Intelligence

**Grade:** Distinction Expected

**Relevant modules:** Artificial Intelligence and Intelligent Agents, Big Data Management, Conversational Agents and Spoken Language, Data Mining and Machine Learning, Distributed and Parallel Computing, Biologically Inspired Computation.

**Projects:**

- Social Interaction Assistance Chatbot and Flag game for Elderly People using Rasa.  
I worked on the graphic user interface and natural language understanding using Rasa.
- Algorithm parallelization and optimization using Haskell and C on the National Robotarium Cluster.
- Geo-spatial analysis of Lothian bus data using ArcGIS, Python, PostgreSQL, and MongoDB.
- Impact of age on Optical Disease Multilabel Classification
- Agent Path optimization using A-star search.
- Ticktacktoe game agent using Q-learn, Value Iteration and Policy iteration.

**Thesis:** Ear disease diagnosis using Vision Transformer models.

#### **Awards**

- Agbami Undergraduate Scholarship (2014-2018).
- Hacktober hackathon Winner (2018).
- Exceptional Student Award, Department of Electrical and Electronic Engineering (2018).
- Academic Excellence Award, Scripture Union Nigeria (2019).
- PTDF OSS master's degree scholarship (2023-2024)

#### **Relevant Personal and Freelance projects**

**Raven's progression matrix Artificial Intelligent agent (2019):** I developed an intelligent agent using Python and the Pillow library to solve Raven's Progressive Matrix problems with over 85% accuracy, demonstrating expertise in logic, image processing and pattern recognition.

**Machine learning-based fraud transaction detection system (2021):** Developed a machine learning-powered fraud detection system that analyses user behaviour and identifies anomalous patterns to prevent financial losses. This system can correctly classify transactions by 99.9%.

**Diabetes Prediction using the PIMA dataset (2021):** Built a machine learning model to classify the Pima Indians Diabetes Dataset with 99.2% accuracy, enabling the prediction of potential diabetes cases based on patient data. This model can contribute to early disease detection and preventative healthcare measures.

**Product data analysis (2021):** I analysed customer purchase data by product category and demographics to uncover buying patterns. I leveraged these insights to develop predictive models that anticipate future purchases and optimize marketing strategies.

**Binance Cryptocurrency data pipeline (2022):** To enhance efficiency for data analysts, I spearheaded the development of a Python script designed to automate data collection. This script leverages the Binance API to retrieve cryptocurrency data at predefined intervals, eliminating the need for manual data gathering and ensuring data consistency. The extracted data is then meticulously formatted and stored within a MySQL database, facilitating efficient organization and accessibility. This streamlined process empowered colleagues to focus their valuable time on advanced analysis and interpretation of the rich cryptocurrency data set, leading to more informed investment decisions and market predictions.

**UK traffic data analysis (2022):** Leveraging my expertise in Python, I conducted a comprehensive analysis of UK traffic data. This involved delving deep into the data to uncover recurring trends and hidden patterns that might not be readily apparent on the surface. These insights proved invaluable in developing data-driven recommendations and predictive models. These recommendations are specifically designed to optimize traffic management strategies and reduce congestion across the UK. By implementing these recommendations, transportation authorities can potentially improve travel times and efficiency for countless road users throughout the country.

**Tuberculosis prediction (2022):** Leveraging machine learning, I analysed a real-world hospital patient dataset to identify factors associated with tuberculosis. This analysis led to the development of a predictive model that can aid healthcare professionals in the early detection of tuberculosis, potentially improving patient outcomes. My work can contribute to advancements in medical diagnosis and patient care and has a 99.5% accuracy.

#### **Certifications and Courses**

**Amazon Web Services Cloud Practitioner.**

**Learn Machine Learning algorithms, software, and deep learning (Udemy)**

**A Gentle Introduction to Machine Learning Using Scikit-Learn (Udemy)**

**GraphQL - A Primer (Udemy)**

**Tableau A-Z: Hands-On Tableau Training for Data Science**