

ABOLAJI SAMUEL AFOLARANMI

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PROFESSIONAL SUMMARY

An Engineer with advanced expertise in Artificial Intelligence and Data Analytics. Over three years of experience integrating data-driven solutions and operational systems. Holds a Bachelor of Engineering in Mechanical Engineering with a focus on Automation and Smart Systems and a Postgraduate Certificate in Artificial Intelligence & Data Analytics. Aiming to harness AI, engineering expertise, and innovative thinking to solve real-world challenges, particularly by integrating mechanical systems with data-driven solutions. Skilled in applying computational modeling, predictive analytics, and system optimization to complex problems.

AREAS OF EXPERTISE

- **Process Systems Analysis:** Modeling, simulation, and optimization of systems.
- **Data-Driven Decision Making:** Use of advanced analytics to inform process improvements and operational strategies.
- **Predictive Modeling and Machine Learning:** Construction of models to forecast system performance and identify trends.
- **Automation and Smart Systems:** Implementation of automated control solutions for efficiency and reliability.
- **Data Visualization:** Creation of dashboards and interactive reports for performance monitoring.
- **Computational Tools:** Python, SQL, and database management for data analysis.
- **Technical Systems Implementation:** Planning, deployment, and integration of software and analytics platforms.

WORK EXPERIENCE

Information Systems Specialist – Full-Time
Jumpframe, Canada | March 2025 – Present

- Lead design and deployment of data and automation systems supporting operational efficiency.
- Conduct advanced analysis of process datasets to optimize workflows.
- Implement predictive analytics to anticipate system behavior and improve process reliability.
- Maintain data integrity and ensure system outputs meet defined specifications.

Engineering Intern

Murtala Mohammed International Airport, Nigeria | February 2020 - September 2020

- Supported engineers in troubleshooting and maintaining critical airport systems, ensuring reliable daily operations.
- Performed routine checks on the power plant and assisted with vehicle and equipment repairs.
- Gained hands-on experience with large-scale systems, enhancing maintenance practices and safety standards.

Engineering Undergraduate Trainee

Landmark University, Nigeria | June 2018 - August 2018

- Contributed to the production of a hydroponics system as part of a university initiative, applying knowledge of fluid power and control systems.
- Designed and produced machine parts using a Universal Lathe Machine, demonstrating precision in mechanical manufacturing and the ability to translate technical designs into functional components.
- Gained valuable experience in machine operation, component manufacturing, and experimental testing to validate engineering theories.

Volunteer Data Analyst and Technical Support

Mike de Jong Campaign | May 2024 – August 2024

- Applied quantitative analysis to operational datasets to identify trends and optimize outcomes.
- Developed visualizations to communicate insights clearly and guide decision-making.

IT Support and Data Analyst

TWPC Tech October 2021 – December 2023

- Performed exploratory data analysis (EDA) and statistical modeling to identify trends and actionable insights.
- Developed machine learning models to classify and predict customer behaviour, improving marketing strategies.
- Created automated reporting tools to streamline decision-making processes and enhance operational efficiency.
- Diagnosed and resolved technical issues, supporting IT operations and infrastructure management.

Volunteer

Golden Love and Hands of Hope Foundation | December 2015 – December 2023

- Planned and executed various events aimed at bringing the community together and raising awareness for important causes.
- Assisted in organizing and implementing fundraising campaigns to generate financial support for individuals in need.
- Actively participated in outreach programs, connecting with the community and providing assistance to those requiring support.
- Worked collaboratively with other foundation members to ensure the success of events and programs, emphasizing the power of teamwork
- Provided emotional support to individuals facing challenges, demonstrating empathy and understanding in every interaction.

EDUCATION

Postgraduate Certificate: Artificial Intelligence & Data Analytics
Saskatchewan Polytechnic | Jan 2024 – Dec 2024

Bachelor of Engineering (B.Eng): Mechanical Engineering
Landmark University, Nigeria | Aug 2016 – Sept 2021

CERTIFICATIONS

- Complete Data Science Bootcamp – 365 Careers (2024)
- Complete Python Developer – ZTM School (2023)

TECHNICAL SKILLS

- Programming: Python, SQL
- Data Analytics Tools: Excel, Power BI
- Machine Learning Frameworks: Scikit-learn, TensorFlow, PyTorch
- Database Management: MySQL, PostgreSQL
- Development Tools: Jupyter Notebooks, Visual Studio Code, Google Colaboratory

PROJECTS

Predictive Analytics for Operational Optimization – Jumpframe Canada, 2025

- Built predictive models to forecast operational outcomes, improving efficiency by 20%.
- Developed interactive dashboards for real-time process monitoring and performance visualization.

Process Performance Prediction – Postgraduate Capstone, 2024

- Developed ML models integrating operational and geospatial data to predict system efficiency.
- Applied NLP techniques to extract insights from unstructured process reports.
- Produced interactive dashboards to monitor and optimize system performance.

Advanced Computational Techniques in Systems, 2024

- Homography Analysis for system mapping and alignment.
- Q-Learning for reinforcement-based process control.
- Support Vector Machine Classification
- Deep Learning for system pattern recognition
- Recommender Systems for operational decision support
- TF-IDF NLP Analysis for process documentation insights.