

ABIOLA OLUFEMI AJAYI

667-358-7944 | ajayioabiola@gmail.com | <https://abiolaoajayi.github.io/abiolaajayi/> |

www.linkedin.com/in/abiolaoajayi | IL.

PROFESSIONAL SUMMARY

Results-driven Data Analyst with over five years of experience applying advanced statistical modeling, forecasting, and optimization techniques to solve complex business problems. Proficient in Python, R, SQL, and Tableau, with expertise in time series analysis, financial modeling, and data visualization. Skilled at translating large, complex datasets into actionable insights that improve decision-making, operational efficiency, and risk management. Experienced in working across global markets and regulatory environments, with a proven ability to design innovative models that support both strategic planning and day-to-day operations.

EDUCATION

Western Illinois University, Economics and Decision Sciences – Macomb, IL.
Master of Science in Applied Statistics and Decision Analytics

Jul 2025

Federal Polytechnic, Ado-Ekiti, NG
Bachelor of Science in Mechanical Engineering

Dec 2019

PROFESSIONAL SKILLS

- **Programming & Data Management:** SQL (SQL Server, MySQL, PostgreSQL – query optimization, ETL), Python (Pandas, NumPy, SciPy, Matplotlib), R, MATLAB.
- **Data Visualization & BI Tools:** Tableau, Microsoft Power BI, Excel (VLOOKUP, Conditional Formatting, Pivot Tables).
- **Cloud & Big Data:** Microsoft Azure (Databricks, Data Lake, Data Warehouse), PySpark.
- **Statistical & Machine Learning Methods:** Supervised/unsupervised learning, NLP, generalized outlier detection, time series forecasting, econometrics, statistical modeling.
- **Risk & Financial Modeling:** Quantitative risk assessment, forecasting, portfolio analytics.
- **Core Competencies:** Big data processing, predictive analytics, optimization techniques.
- **Soft Skills:** Analytical thinking, problem-solving, communication, attention to detail.

PROFESSIONAL EXPERIENCE

Data Analyst INTERN – ILLINOIS DEPARTMENT OF TRANSPORTATION

May 2025 – Aug 2025

- Collected, cleaned, and analyzed large construction datasets (pavement quantities, asphalt tonnage, bridge rehabilitation metrics), enabling data-driven decision-making for project managers.
- Built interactive dashboards in SQL, Excel, and Tableau to track project progress, inspection results, and budget utilization, improving reporting efficiency by 30%.
- Conducted variance and trend analyses on project costs and schedules, helping identify over \$2 million in potential savings and contributing to an 11% improvement in operational efficiency.
- Applied statistical modeling and machine learning (outlier detection) to monitor anomalies in materials testing results, reducing compliance risk and improving quality control.
- Partnered with over 10 stakeholders which includes engineers, contractors, and inspectors to gather requirements, present data insights, and support decision-making during field inspections and progress meetings.
- Supported regulatory compliance and documentation by preparing structured datasets and audit-ready reports, ensuring accuracy in pay quantities and project records.
- Leveraged tools such as Python, R, and Power BI to perform forecasting and scenario analysis on construction timelines, enhancing resource planning.

National Agency for Food and Drug Administration and Control

Jul 2018 – Dec 2024

Quality Data Analyst

- Collected, validated, and analyzed large datasets from regulatory inspections, laboratory tests, and pharmacovigilance reports to support evidence-based decision-making.

- Conducted time series and trend analyses on adverse event reports and compliance data, identifying risk patterns that informed targeted regulatory interventions.
- Developed dashboards in Excel, SQL, and Tableau to monitor quality indicators for food, drug, and cosmetic products, improving transparency for senior management
- Partnered with laboratory and field inspection teams to assess quality performance metrics, detect anomalies, and implement corrective actions that improved compliance rates by 15%.
- Prepared monthly and quarterly compliance reports for executive management and stakeholders, ensuring timely dissemination of accurate regulatory data.
- Coordinated with internal audit and governance teams to evaluate data integrity, reporting controls, and regulatory compliance, achieving 100% adherence to internal standards.
- Supported risk assessments on over 20 regulated product categories, contributing to improved public safety outcomes and enhanced inspection protocols.
- Performed time series analysis and optimization techniques to support investment decision-making processes.
- Supported risk governance forums and internal audits by providing detailed analyses and insights into investment methodologies.

PROFESSIONAL AFFILIATIONS & CERTIFICATION

- Lean Six Sigma.
- Financial Modeling and Valuation Analyst (FMVA).
- Professional Member of the American Statistician Association (ASA).

PROJECTS

ANALYSING MALNUTRITION USING DHS DATA

Jan 2024

- Conducted an in-depth analysis of Egypt DHS 2014 data to examine the impact of parental education, occupation, and household factors on child malnutrition (stunting, wasting, and underweight).
- Utilized R (survey package, dplyr, ggplot2) for data cleaning, recoding, and applying sampling weights to ensure nationally representative estimates.
- Applied logistic regression, probit models, kernel smoothing, and non-parametric methods to assess rural–urban differences in malnutrition outcomes.
- Built visualizations and dashboards to communicate prevalence rates, risk factors, and geographic disparities in malnutrition.
- Generated actionable insights for policymakers, highlighting how parental education and household wealth significantly influence child nutritional status.

Data Visualization Projects (Tableau Public)

- **Customer Satisfaction & Demographic Insights** – Built interactive dashboards to analyze survey data, uncovering demographic trends in customer satisfaction and identifying key drivers of retention.
- **Airline Performance Comparison** – Developed a multi-panel dashboard comparing performance metrics and seasonal trends across major airlines, providing actionable insights into operational efficiency.
- **Programming Language Learning Analysis** – Analyzed survey data to visualize programming language adoption trends by gender and experience level, highlighting representation gaps in the tech industry.