ABIOLA OLUFEMI AJAYI

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PROFESSIONAL SUMMARY

Data Analyst experienced in turning messy, multi-source data into actionable insights. Proficient in Python, R, and SQL; strong in time-series, forecasting, and econometrics. Built production-ready reports and decision models across public sector and regulatory settings (IDOT, NAFDAC), improving compliance, cost control, and on-time delivery. Comfortable partnering with engineers, inspectors, and leadership to scope problems, validate data, and deliver insights.

EDUCATION

Western Illinois University, Economics and Decision Sciences – Macomb, IL. **Jul 2025**
Master of Science in Applied Statistics and Decision Analytics

Federal Polytechnic, Ado-Ekiti, NG **Dec 2019**
Bachelor of Science in Mechanical Engineering

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, Cost Accounting, Budget Planning, Forecasting, Variance Analysis, Product Costing, Capital Expenditure Forecasting, problem-solving, communication, attention to detail.

PROFESSIONAL EXPERIENCE

Data Analyst Intern – Illinois Department Of Transportation

- 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%.
- Performed cost and variance analyses on large-scale infrastructure projects, identifying over $2M in cost savings opportunities and driving an 11% improvement in project cost 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.
- Developed expense forecasts and supported capital planning for bridge rehabilitation and pavement projects, ensuring accurate budget alignment

National Agency for Food and Drug Administration and Control
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 audit and governance teams to ensure accurate financial reporting of inspection program costs and compliance expenditures, achieving 100% adherence to 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.
- Partnered with management to develop financial dashboards tracking regulatory program costs, improving budget transparency and cost allocation efficiency

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

- 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.