Dela Akpalu

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Summary

Data Analyst and Scientist with expertise in Python, SQL, R, and advanced statistical modeling, passionate about using data to improve healthcare and public services. Experienced in working with large, complex datasets, developing automated data pipelines, and delivering actionable insights through Power BI, Tableau, and Python visualization libraries. Skilled at anomaly detection, reporting, and communicating findings to both technical and non-technical stakeholders.

Technical Skills

- **Programming & Data:** Python, SQL, SAS, R, C++, Julia, Databricks, Snowflake
- **Visualization:** Power BI, Tableau, Matplotlib, Seaborn, Redash
- **Data Tools:** REDCap, MySQL, Salesforce (basic), Splunk (familiarity)
- **Methods:** Statistical Modeling, Predictive Analytics, Anomaly Detection, A/B Analysis, Machine Learning

Key Achievements

- Built a 90%-accurate ML model for patient activity prediction, reducing false positives by 18% — directly relevant to improving healthcare outcomes.
- Engineered a recommender system (Python/SQL) that cut query time by 30%, showcasing ability to optimize data operations at scale.
- Automated REDCap pipelines for healthcare research, improving reproducibility and efficiency in data processing.
- Designed and deployed dashboards and reports in Power BI and Tableau for cross-functional stakeholders.

Work Experience

Research Assistant – Wake Forest University

Summer 2024 – Present

- Improved healthcare research data quality and integrity in REDCap, ensuring reliable data for policy-relevant studies.
- Automated cleaning and validation workflows in R and Python, reducing manual time and enhancing reproducibility.
- Conducted quantitative analysis, identifying anomalies and trends to inform project decisions.
- Delivered reports and visualizations in Power BI and Python, making findings accessible to research and administrative teams.

Teaching Assistant – Wake Forest University

2023 – Present

- Mentored 50+ students in applied statistics, focusing on interpretation and clear communication of data-driven insights.

- Provided structured feedback to improve quantitative reasoning and reporting skills.

Relevant Projects

Human Patient Activity Prediction – Healthcare Analytics

Aug 2024 – Dec 2024

- Built ML models to detect and predict patient activity in care homes with 90% accuracy.
- Applied anomaly detection techniques to reduce false positives by 20%, improving trust in predictions.

Logistics Analytics & Reporting System

Aug 2024 – Dec 2024

- Developed a recommender pipeline (Python/SQL) to streamline operations, reducing query time by 30%.
- Created real-time dashboards and visualizations to improve tracking and decision-making.

Nowcasting Stock Markets with Big Data

Feb 2023 – Apr 2023

- Designed hybrid models (VAR + neural networks) for time series forecasting.
- Implemented Python pipelines for reproducible reporting and visualization.

Education

Wake Forest University – M.S. in Statistical Science

Aug 2023 – May 2025

- **Relevant Coursework:** Machine Learning, Database Management, Data Mining, Bayesian Statistics

African Institute for Mathematical Sciences – Structured Masters in Data Science

2022 – 2023

- **Relevant Coursework:** Computational Statistics, Reinforcement Learning, Big Data Analytics, Optimization

Kwame Nkrumah University of Science and Technology – B.S. in Statistics

2016 – 2020

- **Relevant Coursework:** Statistical Learning, Regression Analysis, Stochastic Processes, Econometrics

Awards & Certifications

- **Data Science Certificate** – Wake Forest University
- **Distinguished Teaching Assistant Award (2025)** – Department of Statistical Sciences, Wake Forest University