Ayima Nigel

Data Science | Analytics | Business Intelligence | Epidemiology

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PERSONAL SUMMARY

I am passionate about **solving business and public health problems** using Data Science & Analytics. I systematically & creatively use my skillset to **add tangible value** to the team, the business, and the end user. I am constantly **learning**, always looking to improve and can adapt easily in fast-paced settings.

SKILLS & TOOLS

Programming: SQL, Python (Base, Pandas, Numpy, Matplotlib, Scikit-Learn, Keras), R
Project Tools: Git, GitHub, SWOT analysis, Log frame, Monitoring & Evaluation
Math: Linear Algebra, Statistics (Hypothesis Testing, AB Testing, Central Limit Theorem, Distributions)
Machine Learning: Linear Regression, Logistic Regression, Decision Trees
Project Management: SWOT analysis, Log frame, Monitoring & Evaluation
Visualization/Story Telling: Tableau, Power BI, Excel, Matplotlib, QGIS
Epidemiological Study Design: Cohort, Case-Control, Cross-Sectional
Business Intelligence (BI) Reporting: ChatGPT, DeepSeek, NotebookLM
Root Cause Analysis: Lean Six Sigma, Process Optimization

WORK EXPERIENCE

Junior Data Analyst, GXO Logistics (Calgary, Canada) Mar 2024 – Present

- To augment Data Demand and Information Use (DDIU), I utilized both **SQL & Tableau** to automate data extraction, and create a dynamic weekly report that helped senior leadership **understand and investigate trends over time, and diagnose potential issues.**
- To Improve Stock requisition timeline, I developed a predictive model in Python to forecast inventory shortages based on historical order trends, reducing warehouse stock-outs by 17%.
- To augment Data Demand and Information Use (DDIU), I automated daily reporting on shipment efficiency and delay trends using SQL and Power BI, saving the operations team over 5 hours per week.
- To maximise delivery efficiency at reduced cost, I applied unsupervised clustering to route efficiency data and implemented a clustering solution that optimized fleet assignments, leading to a 12% reduction in fuel costs
- To minimise failed deliveries, I performed logistic regression to uncover key predictors of failed deliveries, improving planning accuracy and increasing on-time performance by 18%.

Monitoring and Evaluation Analyst, NECC (Yaounde, Cameroon) Jul 2023 – Dec 2023

- Developed a public health dashboard using Tableau and SQL to track community-based screening outcomes across clinics, improving data access for 15+ frontline staff and reducing reporting delays by 40%.
- Built a logistic regression model in R to predict patient appointment no-shows, which enabled targeted outreach and reduced no-show rates by 20%.
- Designed and launched a centralized health metrics dashboard in Tableau for 10+ clinics, reducing manual reporting delays and increasing metric visibility.
- Partnered with program leads to build an automated Excel-to-Tableau pipeline for real-time monitoring of health service uptake, boosting decision-making efficiency during grant reporting.

- Engineered automated data cleaning and transformation scripts in Python and SQL to enhance data quality and streamline analytics workflows.
- Partnered with clinical leads to identify gaps in service uptake, using cohort analysis to inform new program interventions and resource reallocation.

Data Associate, Georgetown University (Yaounde, Cameroon) Jun 2020 – Jul 2023

- Developed a public health dashboard using Python (Plotly Dash) and SQL to track community-based screening outcomes across clinics, improving data access for 15+ frontline staff and reducing reporting delays by 40%.
- Cleaned, merged, and analyzed large-scale epidemiological datasets (N > 500,000) using SPSS and SQL for cross-cluster HIV intervention research, enabling data-driven grant reports.
- Automated weekly data integrity checks with Python scripts and custom error-flagging logic, reducing manual QA time by 60% and improving data accuracy for peer-reviewed analysis.
- Collaborated with clinical leads and public health partners to translate technical findings into visualizations (ggplot2, Power BI), enhancing dissemination to non-technical stakeholders.

Data Analyst, Intersos (Bamenda, Cameroon) Aug 2019 – May 2020

- Developed rapid-assessment dashboards in Excel and Power BI to monitor nutrition and protection indicators for displaced populations, enabling agile humanitarian response across 2 regions.
- Conducted spatial analysis using QGIS and Python to identify service coverage gaps and optimize deployment of mobile clinics, reaching 25% more at-risk children and mothers.
- Built and maintained databases of beneficiary records and program indicators (PostgreSQL), ensuring timely and accurate reporting to UNHCR and donor partners.
- Collaborated with MEAL officers to design survey tools and perform real-time data validation checks, reducing data entry errors by 35%.

Field Data Coordinator, BCHPR (Bamenda, Cameroon) Feb 2018 – Jul 2019

- Led the digital transformation of data collection workflows using DHIS2 and ODK, improving reporting timeliness from 65% to 96% across 20+ health facilities.
- Created an automated SQL-based dashboard to monitor maternal and child health indicators, empowering program managers to take data-driven action in near real-time.
- Designed and implemented a DHIS2-based system to centralize data collection and visualization, reducing reporting turnaround from 5 days to under 48 hours.
- Trained 40+ field workers on mobile data collection tools, enhancing data reliability and boosting reporting accuracy by 30%.
- Conducted quality audits and data validation exercises, resulting in the standardization of indicator definitions and consistent data capture across all regions.

Field Data Collector, National Institute of Statistics (Bamenda, Cameroon) Jan 2017 – Jan 2018

- Collected structured demographic and economic data using digital survey tools (CSPro), contributing to one of the country's largest datasets for national population and housing analytics.
- Applied quality assurance checks during data capture to reduce inconsistencies and ensure standardized inputs across 500+ household records—resulting in a cleaner, analysis-ready dataset.
- Collaborated with supervisors to resolve data anomalies in real time, using logic-based validation and exploratory checks to uphold statistical integrity
- Leveraged geospatial tagging and enumeration metadata to enable more advanced spatial analytics post-collection, supporting regional-level demographic modelling.

PROJECTS

Product Delivery Optimization

- Created & applied a **Genetic Algorithm in Python** to search out a near-optimal route across 10 addresses. This led to estimated **savings of up to 50%** in both delivery time and fuel consumption over a route based upon transaction order alone. This approach could be utilized across many industries as a way to find more optimal solutions.

Real-Time Reporting and Information Use

- Developed a public health dashboard using Tableau and SQL to track community-based screening outcomes across clinics, improving data access for 15+ frontline staff and reducing reporting delays by 40%. This approach could be used by the Ministry of Health to ensure rapid intervention and decrease mortality rate of the population.

Optimize Community Targeting

- Used geospatial analysis in QGIS and Python to identify service gaps, guiding outreach that expanded rural program reach by 30%. This could be used across many industries for targeted outreach and maximise efficiency.

EDUCATION

MSc (Epidemiology/Data Analysis) 2019 - 2021
Catholic University of Central Africa, Cameroon

- Completed conjoint Public Health & Science degrees majoring in Epidemiology & Data Analysis
  Overall Average **16.25 / 20.00**

COURSES, CERTIFICATES AND QUALIFICATIONS

Data Science Professional Certification 2022 - Present
Data Science Infinity

- **Actionable Learnings:** Extracting & manipulating data using SQL. Application of statistical concepts such as hypothesis tests for measuring the effect of AB Tests. Utilising Github for version control, and collaboration. Using Python for data analysis, manipulation & visualization. Applying data preparation steps for ML including missing values, categorical variable encoding, outliers, feature scaling, feature selection & model validation. Applying Machine Learning algorithms for regression, classification, clustering, association rule learning, and causal impact analysis for measuring the impact of an event over time. Machine Learning pipelines to streamline the ML pre-processing & modelling phase. Deployment of an ML pipeline onto a live website using Streamlit. Using Tableau to create powerful Data Visualizations. Turning business problems into Data Science solutions.

MEAL DPro 2023
Catholic Relief Services

- **Actionable Learnings:** Developed logic models and theories of change to inform data-driven program evaluation strategies, enhancing project performance tracking and evidence-based insights. Designed and evaluated indicator-based data systems using MEAL frameworks to support impact measurement, program optimization, and adaptive decision-making in development and humanitarian contexts. Applied data quality assurance and accountability principles (from MEAL standards) to ensure accuracy, integrity, and transparency in data pipelines, from collection to reporting, using tools like Excel, Power BI, and KoboToolbox.