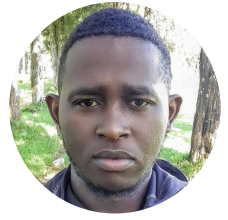


ADRIAN JULIUS ALUOCH

Data Analyst

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PROFILE

I'm a Data Analyst with a strong foundation in statistics and data analytics. I use SQL, Python, R, and BI tools to make sense of complex data and turn it into insights that help teams make smarter decisions and improve business outcomes.

SKILLS

SQL Python R Microsoft Excel Google Sheets Microsoft Power BI Tableau Google BigQuery

PROJECTS

HOW THE COST OF FOOD HAS CHANGED IN KENYA

06/2025 - 07/2025 Eldoret, Kenya, KE

This project looks at how price changes in common household foods impact what families can afford. By building a simple food basket using World Food Programme market price data, the study tracks whether rising or falling prices in individual items ease or increase the cost of living for households.

- Built a household essentials basket (maize flour, sugar, cooking oil, milk, sukuma wiki, tomatoes, onions) using WFP market price data.
- Found overall basket costs rose **5% YoY** — from **KSh884 (June 2024)** to **KSh928 (June 2025)**.
- Identified key drivers: **tomatoes +25% (KSh19 rise)**, **cooking oil +14% (KSh35 rise)**, and **sugar +13% (KSh19 rise)** — together adding **KSh73** to the basket.
- Highlighted partial relief from onions, which fell **-37% (-KSh45)**, slightly offsetting household food inflation.
- Result:** Household food inflation persists despite isolated price drops, leaving families with higher overall costs.

HOW KENYAN HOUSEHOLDS CAN CUT MAIZE FLOUR COSTS

08/2025 - 09/2025 Kisumu, Kenya, KE

This project looks at whether milling dry maize is actually cheaper than buying packaged maize flour. Using 10 years of price data analyzed in **SQL**, **Python**, and **R**, the study compares the real cost households face and shows how milling losses can reduce or eliminate potential savings.

- Cleaned and analyzed 10 years of dry maize vs. maize flour price data using SQL, Python, and R to test if milling saves money.
- Found that milling dry maize (**KSh130/2kg**) saves households **KSh40 per 2kg** compared to buying packaged flour (**KSh170/2kg**), if milling losses are ignored.
- Showed that with **25%** milling losses, the effective cost rises to **KSh174/2kg**, making packaged flour cheaper at retail.
- Confirmed differences with Wilcoxon tests; the cost gap of **KSh5 per 2kg** was statistically significant, though the effect size was modest.
- Outcome:** While milling can cut costs, savings quickly disappear once milling inefficiencies are factored in.

CAN KENYAN MAIZE FARMERS AFFORD DAP THIS SEASON

09/2025 - 10/2025 Kisumu, Kenya, KE

This project looks at how affordable DAP fertilizer is for farmers compared to other options like NPK, CAN, and Urea. Using national market price data, the study highlights both national and county-level price differences, tracks trends over the past few years, and shows how high DAP prices can push farmers toward cheaper alternatives.

- Assessed farmer affordability by benchmarking DAP against other fertilizers (NPK, CAN, Urea) using national market price data.
- Found DAP fertilizer averaging **KSh120/kg nationally**, **KSh20 higher** than NPK (**KSh100/kg**), making it the costliest planting option.
- Exposed county variation: **Kitui at KSh125/kg** (highest) vs. **Kisumu at KSh110/kg** (lowest), a **KSh15 gap** that scales to thousands of shillings per farmer.
- Tracked trends since 2021: DAP spiked from **KSh80 to KSh130 (+62.5%)** in 2022, eased slightly to **KSh120 by 2025**, but plateaued at near-record levels.
- Insight:** While prices have stabilized, affordability remains strained, forcing farmers toward NPK or organic substitutes.

EXPERIENCE

01/2026 - Present

Remote

Data Analyst

TeacherOn

- Provide one-on-one online tutoring in statistical analysis for undergraduate students, focusing on both theory and practical application.
- Explain core statistical concepts including probability, hypothesis testing, regression analysis, and statistical modeling in a clear, structured manner.
- Guide students through data analysis workflows, including **data cleaning**, **exploratory data analysis** (EDA), and result interpretation.
- Support students in applying statistics using **Python**, **R**, and Excel for real-world datasets.
- Help students design and execute final-year projects, including **anomaly detection** and **predictive analysis** topics.
- Develop structured learning plans aligned with academic syllabi and individual student goals.

01/2025 - 02/2025

Remote

Data Analyst Intern

Excelerate

- Completed a 4-week virtual internship as an AI Data Analyst, analyzing student engagement datasets to uncover trends and behavioral patterns.
- Performed data preprocessing, **exploratory data analysis** (EDA), and built **predictive models** to identify factors driving sign-ups, completions, and drop-offs.
- Generated actionable insights to improve engagement strategies, presenting findings through clear visualizations and reports.
- Gained practical experience with **Python**, **SQL**, and machine learning workflows for real-world data problems.
- Recognized as a Star Performer for outstanding analytical work and solution-oriented insights.

05/2024 - 08/2024

Kisumu, Kenya, KE

Data Analyst Attachee

Kenya Medical Research Institute (KEMRI-CGHR)

- Managed and maintained data using **Microsoft SQL Server**, ensuring data integrity and efficiency.
- Conducted statistical analysis using **Python**, **R**, and **STATA**, deriving insights to support research and operational decisions.
- Developed comprehensive data reports and visualizations using **Quarto**, effectively communicating key findings to stakeholders.
- Collaborated with a cross-functional team to streamline data workflows, improving the organization's reporting processes.

EDUCATION

08/2021 - 08/2025

Eldoret, Kenya, KE

Bachelor of Science in Computer Science

Moi University

CERTIFICATIONS



Google Data Analytics Professional Certificate

- Completed 8 courses covering: data foundations, **data cleaning**, **analysis**, **visualization**, R programming, and SQL.

• Developed hands-on skills in preparing, processing, analyzing, and sharing data for decision-making.

• Gained proficiency in tools including **Excel**, **SQL**, **Tableau**, and **R**.

• Verified at: <https://coursera.org/verify/professional-cert/JJHO687M0ZX0>

ACHIEVEMENTS



Large-Scale Workflow Automation Deployment

Successfully deployed and monitored **14,118+ automated workflow runs** using GitHub Actions to extract, process, and upload agricultural market data into **Google BigQuery**, demonstrating strong system architecture, automation, and infrastructure management skills.



Anomaly Detection in M-PESA Transactions

Developed a three-stage anomaly detection framework on 5,126+ personal **M-PESA** transaction records, reducing flagged anomalies from 496 (**IQR**) to 169 (**STL**) and 49 (**Isolation Forest**), demonstrating expertise in statistical modeling, time series decomposition, and context-aware anomaly detection.