LINDA KARANI

Data Scientist

I am a seasoned data scientist with around 5 years of experience specializing in developing data-intensive tools, comprehensive data processing, intricate data analysis, and predictive modeling. I excel in transforming raw data into actionable insights via interactive and analytical dashboards. My expertise extends to both supervised and unsupervised machine learning, advanced statistical analysis, and geospatial data analysis. I am also proficient in SQL and comfortable with data modeling. I am highly adaptable and thrive in navigating ambiguous and unstructured environments, where I can build innovative solutions from scratch.

My strength lies in consistently driving value for stakeholders and across the organization through through effective storytelling, problem solving and deriving meaningful and actionable insights from data to inform decision making. I am driven by the pursuit of continuous learning, contribution to societal good and actively seek out new challenges to further enhance my expertise.

🎓 EDUCATION

2021 | 2024

Strathmore University
Masters of Science in Data Science and Analytics 📍 Nairobi, Kenya

Relevant units: Advanced machine learning concepts, Advanced statistical analysis, Data visualization and communication, Database management

2022

ETH Zurich
Dissertation: Importance of reproducibility in advancing Sustainable Development Goal(SDG) 6 in R : A comparison of statistical models
📍 Zurich, Switzerland

2014 | 2018

Strathmore University
Bachelor of Business Science in Financial Economics
📍 Nairobi, Kenya

✸ CERTIFICATIONS

2024

IBM
Data Engineering & Data science 📍 Remote

Relevant units: Data Managemant, ETL, Apache, Databases, Data Warehousing, Distributed computing systems, SQL. Generative AI

2024

Esri
Spatial data science 📍 Remote

CONTACT INFO

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🐙 github.com/KaraniLinda

in Linkedin

📞 +254 708054713

DATA TECH STACK

Database/Server : MySQL, PostgreSQL

Programming languages : Python, R programming

Frameworks/libraries : NumPy, Pandas, matplotlib, Scikit-learn, ggplot, tidyverse, dplyr, leaflet, caret

Data visualization/Reporting : R Markdown, Quarto, Power BI, Tableau , Google Data Studio, Excel

Geospatial packages: Uber-H3(Hexagon), ARCGIS, R(raster,tmap), Python (geopandas, rasterio, xarray)

Cloud computing : Google cloud platform

Git and Version Control

LANGUAGES

English : Native

French : Limited working proficiency

💼 PROFESSIONAL EXPERIENCE

Data scientist

World data lab 📍 Nairobi, Kenya

November, 2022
|
Date

- Led the comprehensive data collection, analysis, and forecasting for multiple projects including the in-depth analysis of youth labor force survey data in collaboration with the Mastercard Foundation. Executed the project for Kenya, Rwanda, and Ghana, leading to the establishment of a youth unemployment clock providing real-time insights on jobs. Utilized advanced statistical modelling techniques such as linear regression and time series models to forecast future labour market trends

- Utilized predictive modeling techniques to analyze satellite data such as land cover and nightlights data and demographic information, creating a detailed map of aggregate spending for European countries at the grid (100m*100m) and hexagon level (Uber H3 - Res 9), enabling our client to identify optimal locations for retail chain expansion.

- Applied and deployed advanced machine learning algorithms such as Random Forest and regularized regression models at the lowest census unit for European countries, leveraging geospatial covariates to effectively disaggregate spending at the grid level with a 86% accuracy.

- Organized and executed student hackathons with participation from over 100 students and in collaboration with the top 3 universities in Kenya, resulting in the development of innovative solutions for real-world problems and fostering collaboration within the academic community.

- Conducting rigorous data quality assurance checks, ensuring the continuous enhancement of models with the latest and highest-quality data.

- Demonstrated expertise in the in-depth analysis of household and census survey data.

- Delivered high-impact, actionable insights to clients, focusing on providing data-driven solutions that directly informed strategic decision-making and drove meaningful results.

April, 2021
|
November, 2022

Senior associate- Data analysis and business modelling

Sanergy   📍 Nairobi, Kenya

- Was part of a team that led data management and analysis for a multinational corporation to identify areas in the citywith the greatest potential for introduction of non-sewered sanitation products to allow for future upscale

- Developed several robust quantitative and qualitative data collection tools for citywide inclusive sanitation planning to determine market share and predict an appropriate mix of sanitation products based on key indicators and metrics.

- Analyzed data collected by the Cost and Climate in Urban Sanitation (CACTUS) project led by the University of Leeds and supported by the Bill and Melinda Gates Foundation and used the findings to create a set of improved data collection tools and manuals to facilitate widespread contribution to a database of benchmark cost estimates to inform sanitation investment decisions.

- Effectively communicating analysis and project results to senior leadership and external stakeholders

- Completion of diverse advisory projects with a high standard of quality and production of comprehensive analytical reports

- Conducted data analysis for a UNICEF implemented project to inform progress towards safely managed sanitation

- Proactive stakeholder management and advisory services

September, 2019
|
March, 2021

Finance/Data analyst

Sanergy.   📍 Nairobi, Kenya

- Identified key organizational metrics, cleaned and analyzed data from all departments and presented results on Tableau improving accuracy of results by 35%.

- Aggregated data across all departments that was previously in multiple different sources to create an interactive organization wide dashboard based on key KPIs that led to increased efficiency in operations and improved decision making and that resulted in a 30% reduction in redundancy.

- Using data analytics to identify business needs and requirements and deliver data-driven recommendations and reports to executives and stakeholders.

- Supported teams to understand, monitor and control key business metrics to achieve success and base decisions on data.

- Prepared financial statements and other financial reports and reported performance to senior management and the finance board

🔖 REFERENCES

References available upon request