

# Machocho Mengo

Data Analyst, Web developer

<https://github.com/Machocho254>

254723254041

[machocho.mengo254@gmail.com](mailto:machocho.mengo254@gmail.com)

<https://www.linkedin.com/in/machocho-mengo/>

## EXPERIENCE

<https://machocho254.github.io/Simon-Says-game/>

### **Kilifi Youth Initiative, Mtwapa(Remote) — Volunteer Data Analyst.**

January 2022- PRESENT

- Capacity building by hosting virtual data science meetups where budding data scientists get to share knowledge with each other.
- Coordinate fundraising walks and drives to raise funds for the organization's programs.
- Using clustering algorithms to map out regions and demographic analysis of participants to inform the interventions of the organization.
- Generating weekly, monthly, and quarterly reports, analytics, and presentations from Google analytics.

### **TechnoServe, Mombasa — Data Analyst**

September 2020- December 2021

mSPARK: A one-year program that aimed to work with 28,000 micro-enterprise owners, providing targeted digital and financial support to help them survive the COVID-19 crisis and reduce the pandemic's negative impact.

- Built a K-Nearest Neighbours recommender system for registration of beneficiaries into the mSPARK program based on the demographic data of the previous cohort reducing the time needed for mobilization by 3 weeks and increasing the efficiency of the mobilization by 15%.
- Wrangled participant data that was collected and stored in CommCare (structured) and data from Facebook and WhatsApp (unstructured data), remodeled and visualized the data using Tableau to keep track of loan recovery of +8000 participants in Mombasa county under the mSPARK program.
- Built a Support Vector machine model for loan recovery. This increased loan recovery by 40%, from at most \$20000 a week to at least \$100000 a week. We were also able to cut the cost of loan recovery by reducing the number of debt collectors needed from 25 to 14.
- Presented the results to team members and helped come up with strategies to increase loan recovery in areas that had low recovery rates.

### **KPMG, Remote/Virtual — Data Science Intern**

April 2020 - October 2020

- Receive, clean, and prepare data from clients using SAS, SQL, and Python to help machine learning engineers build marketing models. This cut down the time needed to build models by 6 hours.
- Built a customer attrition random forest model that improved monthly

## SKILLS

Python, R, MS Excel

HTML, CSS, JavaScript

SQL, MySQL, Tableau

A/B Testing, Data Science Pipeline, Statistics, Experimental design

Hypothesis Testing

## AWARDS

UDEMY: FullStack Web Development

FREECODECAMP: Data Visualization Certificate

FREECODECAMP: Data Analysis with Python Certificate

Humanitarian Leadership Academy: MEALDPRO

## LANGUAGES

ENGLISH, SPANISH, FRENCH

retention by 30% (from a pool of 1000 clients) for clients likely to opt out of subscriptions by providing relevant product features based on their demographic data.

- Coordinate with product marketing teams to determine what kind of client interactions resulted in maximized opt-ins, increasing conversion by 15%

## EDUCATION

### **Moringa School, Nairobi— Certificate**

October 2019 - April 2020

Data Science, Machine Learning and Artificial Intelligence bootcamp

### **The University of Nairobi, Nairobi— BSc**

October 2012 - December 2016

Second Class Upper Division

## PROJECTS

Scrum Master, Hacker News API Popularity Prediction Model

*30th March to 17th April 2020*

URL: <https://github.com/Machocho254/Hacker-News-Project>

The objective of this project is to predict the popularity of a story based on the title. The data was obtained from the Hacker News BigQuery API.

- Text data preprocessing using NLP, building an RNN model for classification with 82% accuracy
- Tools used to achieve the objectives were, EDA - Pandas and Matplotlib, Modelling using Keras and Tensorflow, Storytelling, and visualization using Seaborn.