

# Shelmith Nyagathiri Kariuki

## Senior Data Analyst

[in linkedin.com/in/shelmith-kariuki-44351363](https://www.linkedin.com/in/shelmith-kariuki-44351363) [github.com/Shelmith-Kariuki](https://github.com/Shelmith-Kariuki) [i https://shelkariuki.netlify.app](https://shelkariuki.netlify.app)

+254 xxx xxx xxx @ kariukishelmith@gmail.com

Nairobi, Kenya

I am a hardworking and motivated Senior Data Analyst, currently based in Nairobi, Kenya. I have a breadth of data analysis experience, having worked on different development projects, both in Kenya and beyond. I have extensively worked with R for 7 years, and with Python for 3 years. I am also an active member of amazing data science communities in Nairobi, i.e PyData Nairobi, Nairobi Women in Machine Learning, AI Kenya, NairobiR and AfricaR. I enjoy learning new things each day, and I am always ready to take up new challenges as they arise. I am very passionate about using data analytics to drive development projects in Africa and beyond.

## Competencies

**Statistics software :** R, STATA, SPSS

**Programming :** Python, SQL

**Databases :** MySQL, PostgreSQL

**Development editors :** RStudio, Sublime

**Data visualization/Reporting :** R Markdown, Jupyter notebook, R Shiny

**Operating systems :** Mac OS, Windows, Linux

**Survey Programming :** ODK

## Professional Experience

September 2020

To date

**Data Analytics Consultant, UN DESA, Population Division**

> Evaluation and standardization of mortality data by age and sex.

R

January 2020

October 2019

**Research Manager, Geopoll, Nairobi, Kenya**

- > Enhance data collection services including survey design, sample management, survey implementation, case study development and reporting.
- > Coordinate on projects with diverse partners and clients for survey design and research.
- > Provide consultation and guidance to the research team and other teams on statistical methodologies and analysis.
- > Engage in day to day research tasks such as open ended coding, data preparation and quality control and implementing improvements for faster data preparation for custom research and media audience data.
- > Develop a research strategy for leveraging the Geopoll platform to improve both understanding of population behavior, needs, and vulnerabilities as well as capacity to monitor and evaluate the impact of clients projects, policies and programs.
- > Perform case studies with existing data sets and mobile surveys to explore a new methodology of research and modular analysis.
- > Assist in strategically thinking about mobile surveys, uses of data and information design.
- > Implement any software required for accessing and handling data appropriately.
- > Engage with technical and development teams for best approaches on different data collection outputs.
- > Visualise and report data findings creatively in a variety of formats and creation of dashboards used for output/display of data
- > Further development of team capabilities
- > Manage day to day teams to meet timelines for clients deliverables, for customs research and audience measurement.

R

SPSS

PowerBI

- August 2019  
May 2017
- Data Analyst, Busara Center for Behavioural Economics, Nairobi, Kenya**
- > Data validation and processing
  - > Analysis of data from field, lab studies and transactional data from institutions
  - > Designing data collection tools using Survey CTO
  - > Cleaning data and conducting high frequency checks
  - > Generating visualisations (using R's ggplot2 and R Shiny)
  - > Preparing data tasks for interviewees
  - > Training R to research analysts and associates
  - > Attending client meetings, to explain statistical concepts to them
  - > Assist in preparation of pre-analysis plans by selecting appropriate statistical methods
  - > Development of interactive dashboards
  - > Collaborate with the programming team to develop internal systems
  - > Application of machine learning algorithms to build predictive models
  - > Assist in designing reviewing research tools and writing proposals
- R Shiny Python MySQL PostgreSQL
- 2017  
2015
- Assistant Lecturer, JKUAT, Karatina University, Kimathi University**
- > Teaching statistics and actuarial science units.
  - > Teaching statistical programming in R
  - > Setting and marking exams
  - > Invigilating exams
- R

## Projects and Achievements

- > Projects : <https://shelkariuki.netlify.app/>
- > RStudio Tidyverse Certified Trainer : "<https://education.rstudio.com/trainers/people/kariuki+shelmith/>"
- > Zindi Ambassador for Kenya, "<https://zindi.africa/blog/meet-our-zindi-ambassadors>"
- > Lecturer, International Summer School in Uganda : Survey Methodology and Data Management (ISSU), "<https://www.gesis.org/en/services/events/gesis-training/international-summer-school-in-uganda/introduction-to-data-analysis-using-r/>"

## Languages

English ●●●●●  
Swahili ●●●●●

## Strengths

- > Capacity Building
- > Passionate
- > Motivated
- > Team Player

## Education

- 2021 The Causal Inference Bootcamp - Duke University (Online)
- 2021 Mastering Econometrics - Marginal Revolution University (Online)
- 2015 Msc. Applied Statistics - Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya
- 2012 Bsc. Actuarial Science - Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya

## References

**Antony Waititu, Professor - JKUAT**

☎ +254 xxx xxx xxx  
@ to be shared upon request

**Nathanial Peterson, VP, Busara**

☎ +254 xxx xxx xxx  
@ to be shared upon request

**Sara Hertog, Population Affairs Officer, United Nations**

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@ to be shared upon request