

Curriculum Vitae

Moses Mburu

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Location: Kilifi, Kenya

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Professional Summary

A seasoned Data Analyst with extensive experience in data management, statistical analysis, and machine learning. Having worked across healthcare, financial research, and agricultural sectors, I possess a robust understanding of various analytical methodologies and tools, including R, Python, and SQL. My career is marked by a keen focus on leveraging data to address complex issues, complemented by a continuous pursuit of emerging technologies to enhance efficiency in data-driven decision-making.

Employment History

Data Scientist, The Foundation for Innovative New Diagnostics (June 2022 – Present)

- Managing and ensuring the integrity of biobank data through the development of reproducible data management processes and R scripts.
- Developing and deploying interactive Shiny and Power BI dashboards for internal and external stakeholders, integrated within the company's SharePoint wiki page.
- Leading the coordination with external partners and consultants to enhance data management and biobank activities, ensuring project objectives are met timely and effectively.
- Collaborating with the Data Science team to author R packages and enhance data science operations through strategic use of GitHub for code management.
- Contributing to scientific publications and reports, assisting with data analysis and presentation for internal and external audiences.

Data Manager, KEMRI WELLCOME TRUST (May 2019 – May 2022)

- Carry out data review, validation including discrepancy checking, and cleaning.
- Manage data entry staff (permanent or casual) in collaboration with Administration and PIs and monitor performance.
- Design database for capturing and storing data.
- Prepare performance indicator reports on data status as study project progress. Co-ordinate data for all study sites projects.
- Conduct preliminary analysis and generate study progress reports.
- Participate in the development, review and translation of research tools; Participate in the pre-testing of data collection platforms;
- Data cleaning including doing all required consistency checks for project data;

- Document project data sets according to the Centre’s guidelines on data documentation, archiving and sharing;
- Extract data and prepare analytical files;
- Develop template syntax files for research staff to use in creating various data sets;
- Perform basic and advanced statistical analysis of data using tools such as STATA and R.

Data Analyst/Statistician, Low Income Financial Transformation (June 2016 – May 2019)

- Preparing all ‘R’ scripts in a way that they are usable by others (documenting and standardizing code)
- Supporting publications such as blogs, Research Pearls and larger projects with data analysis
- Identifying interesting patterns in the data and making suggestions for publications, e.g. differences between diaries-and-non-diaries respondents, differences between baseline and endline
- Voicing any data discrepancies and suggest solutions to any problems these might cause
- Suggesting improvements on data processing or analysis techniques
- Supporting others on methodological issues such as sample design, sample selection
- Working together with Maria Helmrich on working out data tasks, e.g. correlations analyses
- Supporting any project with sampling and other statistical expertise

Qualifications

Education

- **Bachelor of Science in Statistics**, University of Nairobi, 2012 – 2016
– Specialized in Statistical Modelling, Data Analysis, and Time Series Analysis.

Certifications

- **Spatial Data**, Data Camp: Focused on visualizing and analyzing spatial data using modern tools and techniques.
- **Machine Learning**, Coursera: Mastered both supervised and unsupervised learning methods, encompassing various regression, classification, and clustering techniques.
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Publications

- Gachoki, P., Mburu, M., & Muraya, M. (2019). “Predictive Modelling of Benign and Malignant Tumors Using Binary Logistic, Support Vector Machine and Extreme Gradient Boosting Models.” *American Journal of Applied Mathematics and Statistics*, 7(6), 196-204. DOI: 10.12691/ajams-7-6-2
- Maleche-Obimbo, E., et al. (No date). “Magnitude and factors associated with post-tuberculosis lung disease in low- and middle-income countries: A systematic review and meta-analysis.” *PLOS Global Public Health*. Available at: <https://journals.plos.org/globalpublichealth/article?id=10.1371%2Fjournal.pgph.0000805> (Accessed: 09 October 2023).