Benjamin Mwamburi Mwasambo
Data Scientist/Data Analyst

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I am a hardworking and motivated Data Scientist/Analyst with 6 years' experience in data driven business solutions and products development support. I am experienced in creating innovative technology solutions across diverse industries with knowledge in machine learning, and big data; highly skilled communicator, with extensive technical knowledge able to serve as a trusted and valuable consultant; collaborates with all levels of internal and external developers and project stakeholders; leads teams in the development of new products; building machines/data, credit risk models and driving integrated solutions that encourage long-term business growth.

On-going MSc. in Geospatial Information Science (GIS) and Remote sensing with technical skills of using R programming for both spatial and non-spatial data sets, different data formats manipulation from various sources: APIs, JSON, RDBMS, Spatial/Geodatabases.

I enjoy learning new things each day, and I am always ready to take up new challenges as they arise.

≡ Competencies

Statistics software:	R
Programming:	R, SQL
Databases:	PostgreSQL, Spatial/Geodatabase
Development editors:	RStudio
Data visualization/Reporting:	R Markdown, R Shiny, ArcGIS
Geospatial and Remote sensing:	ArcGIS, QGIS, ENVI, ERDAS imagine, R
Version control systems:	GIT
Operating systems:	Windows, Linux

▣ Professional Experience

April 2021
April 2022

DRIP MSc. Scholar, icipe, Nairobi, Kenya

MSc scholar at International Center of Insect Physiology and Ecology (**icipe**) with research interest in Spatial modelling of invasive pests

Research project: Pest risk analysis and mapping of alien *Bactrocera zonata*

November 2020
to Date

Data Scientist, Blue Marble Microinsurance, Nairobi, Kenya

∠ Lead the development of new parametric products.
∠ Supporting in the design, pricing and monitoring of existing parametric products across all Blue Marble's ventures.
∠ Designing, development, coding and maintenance of Blue Marble platform modules (Primarily Agsuite data visualization portal), including data architecture, UI/UX design and functionality using in-use language and frameworks (R, shiny, SQL).
∠ Proactively proposing and implementing solution improvements for existing ventures and platforms
∠ Proactively contributing to the R & D work of Blue marble.
∠ Proposing high-value structural and implementation improvements to the index models, pricing platforms and data architecture.
∠ Providing actuarial and analytical support on an ad hoc basis.
∠ Documenting all work with clarity, requisite details and storing in appropriate Blue Marble's cloud storage drive.

| R | Shiny | ArcGIS | Excel | PostgreSQL |

August 2020
January 2018

Data Scientist, FarmDrive Limited, Nairobi, Kenya

∠ Organizes large datasets to obtain actionable insights including finding innovative ways to combine fields of data and ensuring high quality data management techniques.
∠ Collects data from diverse sources including web APIs and internal databases encoded in SQL.
∠ Utilizes advanced R programming skills to efficiently sort large data sets and apply filters and conditions to data.
∠ Spearheads processing of structured and unstructured data in order to analyze large amount of information and isolate trends and patterns.
∠ Collaborates with engineering and product development teams to build appropriate predictive models (including credit risk modelling) and machine learning algorithms.
∠ Create meaningful data visualization that clearly communicates finds and relates them to business impact.
∠ Processes solution and strategies to address business challenges and provides foundation for data-driven decision making.
∠ Big data analysis using the sparklyr package.
∠ Analysis of loan portfolios.
∠ Analysis of market/customer churn rate.
∠ Creating interactive dashboards with Shinydashboard and writing reports with Latex and Rmarkdown packages.
∠ Manage day to day teams to meet timelines for client's deliverables.
∠ Analysis of geospatial and remote sensing data (Vector and raster data formats) including spatial modelling and interpolation.

| R | Shiny | ArcGIS | Excel | PostgreSQL |

December 2017
February 2016

Program manager, FarmDrive Limited, Nairobi, Kenya

Lead in operations department which consisted of customer support, data analysis, loan recovery and collections units:
∠ Planning and designing program.
∠ Defining programs governance arrangements.
∠ Managing communication with stakeholders.
∠ Impact reporting, customer on-boarding and retention.
∠ Accounts escalation, customer relationships management and advocacy.
∠ Strategic loans collection planning and implementation.
∠ Data analysis and reporting.
∠ Managing and analysis of geospatial projects and data.
∠ Development of interactive dashboards

| R | ArcGIS | ENVI | Excel | PowerPoint |

January 2016
October 2015

Geospatial data analyst intern, Kenya Forest Service, Nairobi, Kenya

∠ Analysis and visualization of geospatial data

🎓 Projects and Achievements

> Humanitarian response to cyclone Idai in Zimbabwe: [dashboard link](#)
> Helped in development of FarmDrive's geolocation algorithm: [blog link](#)
> Using satellite data(Earth observation-ESA) to monitor Agricultural loan risks: [Pilot description](#)
> Insights from a loan portfolio analysis for a FinTech loan product: [Project ink](#)
> Time series market analysis for agricultural commodities in Kenya: [Project link](#)
> University of Eldoret and University of Eastern Finland collaborative project on improving Forestry Education in Kenya;- helped in development of two mobile applications(**Eucalyps** and **MtiCalc**): [APK link](#), [Research paper](#), [Standard digital article](#), [Daily nation article](#)

📖 Languages

English ●●●●●
Swahili ●●●●●

+ Strengths

∠ Capacity Building
∠ Passionate
∠ Motivated
∠ Team Player
∠ Research

🎓 Education

2017 - 2020: MSc. Geospatial Information Science & Remote sensing - Jomo Kenyatta University of Agriculture & Technology, Kenya.
Research topic: Potential risk of invasion and spatial distribution of *Bactrocera zonata* in Eastern Africa.

2011 - 2015: BSc. Forestry – University of Eldoret, Kenya

🎓 Professional development

2019 - 2019: Data Scientist with R - DataCamp online accredited (Statement of accomplishment awarded)
2015 - 2015: Introduction to basic GIS and remote sensing – Kenya Forest service

66 References

Rita Kimani	**Professor Balozi Bekuta Kirongo**	**Dr. Myriam Douce Munezero**
Co-Founder & CEO	Head, Dept. of Forestry & Wood science	Project Supervisor
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***Contact information will be provided upon request.**