

PAUL MBARU KAMAU

PERSONAL INFORMATION

Address: Uppsala, Sweden

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PROFILE

Second-year master's student in Data Science – Machine Learning and Statistics at Uppsala University, Sweden, with over 3 years of experience in data science and a strong academic background in Statistics. Hands-on experience in quantitative research, machine learning, natural language processing, big data, cloud technologies, and large-scale computation. Interested in applying modern statistical and computational methods to real-world challenges across diverse domains, including finance, biology, and other data-intensive fields. Passionate about developing practical, scalable solutions and conducting data-driven research at the intersection of statistics, machine learning, and artificial intelligence.

EDUCATION

Sep 2025 – Ongoing

Master's Programme in Data Science – Machine Learning and Statistics

Uppsala University, Uppsala, Sweden.

Key Coursework: Machine Learning, Data Ethics and Law, Database Design, Data Engineering, Financial Derivatives, Analysis of Time Series, High-Performance Programming, Accelerator-based Programming, Reinforcement Learning, Computational Finance: Pricing and Valuation, Computer-Intensive Statistics and Applications, Mining of Social Data

Sep 2015 – Apr 2021

Bachelor of Science Degree in Biostatistics

Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya.

Key Coursework: Probability and Statistics, Calculus for Statistics, Linear Algebra, Statistical Programming, Stochastic Processes, Bayesian Inference, Regression Modelling, Numerical Analysis, Non-Parametric Methods, Statistical Computing, Theory of Estimation, Differential Equations for Statistics, Design and Analysis of Clinical Trials, Computational Biology, Statistical Genetics, Survival analysis.

WORK EXPERIENCE

Mar 2022 – Jun 2025

Data Scientist & Market Analyst (Freelancer)

Upwork Inc.

- Top-Rated Freelancer who provides data science, market analysis, statistical modeling, and machine learning solutions to international clients, translating complex quantitative findings into actionable insights.
- Developed automated trading strategies for 4 online proprietary trading firms, applying quantitative analysis to financial-market data and risk management.
- Built a master securities database integrating equity financial data from market data vendors using modern data engineering tools and methodologies.
- Written financial and market-analysis articles for several outlets, communicating complex financial data to broad audiences.

Sep 2021 – Jan 2022

Field Enumerator

Kula Vyema Centre of Food Economics, Nairobi, Kenya.

- Part of a team that conducted field research on The International Fund for Agricultural Development, Upper Tana Project, a poverty reduction initiative in Kenya aimed at increasing sustainable food production and incomes for rural households.
- Personally led surveys and held interviews with over 1,000 farmers and rural households to gather data on agricultural practices, food security, and natural resource management.
- Contributed to a study assessing the impact of the 2019-2021 desert locust infestation on household livelihoods and food security in Kenya.

Jun 2021 – Aug 2021

Political Data Analytics/ Data Science Intern

The United Nations Office at Nairobi (UNON).

- Contributed to the implementation of the UN's first-ever UN-wide Data Strategy, supporting conflict prevention and peacebuilding efforts.
- Was part of a team that utilized Python, Power BI, QGIS, Microsoft SQL, and cloud computing services to provide data analytics and technical support for the establishment of a conflict prevention database, including early warning mechanisms and situational

reporting to inform UN Senior Management's decision-making.

- Personally, developed over 5 Power BI dashboards and integrated data visualization solutions from multiple sources to enhance situational awareness and guide conflict prevention efforts.

May 2019 – Aug 2019

Data Analyst Intern

Kenya Forestry Research Institute (KEFRI), Nairobi, Kenya.

- Analyzed large datasets for research projects using Python, R, SPSS, Excel, and Microsoft Power BI, delivering actionable insights to support environmental studies.
- Trained 50+ staff members on Python and R, enhancing the team's ability to perform independent data analysis and improve research productivity.

TECHNICAL SKILLS

- **Programming & Databases:** Python, SQL, C, JavaScript/HTML/CSS, Bash, OpenMP, R, MATLAB, LaTeX, Jupyter Notebook, Advanced Excel, PowerBI, Relational & NoSQL Databases
- **Data Engineering & Analytics:** Apache Spark, Apache Kafka, ETL/ELT, Data Pipelines, Data Integration, Data Processing, Data Warehousing
- **MLOps & Cloud:** ML Pipelines, CI/CD, Model Deployment, Model Serving, Model Monitoring, Model Versioning, APIs, GCP, OCI, OpenStack
- **Quantitative Finance:** Derivatives, Time-Series Analysis, Volatility Modeling, Forecasting Models, Automation
- **Professional Skills:** Team Collaboration, Communication, Analytical Thinking, Problem Solving, Technical Reporting

LANGUAGES

English: Full professional proficiency

Swedish: B2 (Intermediate)

Swahili: Native

Kikuyu: Native