

# Sylvia Wangui Mwai

## Data Scientist & Industrial Mathematics Professional

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### SUMMARY

Results-driven Data Scientist with a Bachelor's degree in Industrial Mathematics, specializing in advanced data analytics, machine learning, and predictive modeling. Proficient in Python, MATLAB, and PowerBI, with a proven ability to drive business growth and operational efficiency. Successfully led a project that increased Airbnb pricing accuracy by 8% using the Lasso model. Adept at turning complex data into actionable insights that align with organizational objectives, enhancing customer engagement and financial strategies. Eager to contribute innovative, data-driven solutions to support organizational success.

### EXPERIENCE

#### KPMG Data Analytics Consulting Intern

##### Forge

📅 11/2023 - 01/2024

- Implemented a client-focused simulation using Excel and PowerBI, resulting in a 20% increase in customer engagement.
- Identified key trends based on customer demographics and attributes, including data-driven solutions that resulted in 12% improvement in operational efficiencies.
- Contributed directly to strategic decision-making processes with a data-backed PowerPoint presentation.

#### Junior Machine Learning Engineer

##### Omdena

📅 05/2023 - 11/2023

- Developed advanced machine learning models for Airbnb pricing that resulted in an increase of 5-10% in prices.
- Implemented user-centric enhancements and a data-driven decision-making process to enhance the user experience by 20%.
- Increased prediction accuracy by 8.03% using the Lasso model, validated by a significant decrease in Root Mean Squared Error and Mean Absolute Error.
- Achieved higher pricing accuracy and reliability by establishing the Lasso model as the best value for money.
- Led strategic analyses and implemented revenue-boosting measures that increased revenue by 12%.
- Assessed over 6000 Airbnb listings, facilitating strategic decision-making and boosting revenue.
- Streamlined data processing, reducing processing time by 25% and increasing efficiency.

#### Internship Trainee - Finance and Investment (Cost Management Accounting)

##### National Hospital Insurance Fund - Kenya

📅 01/2023 - 03/2023

- Fortified the accuracy of NHIF financial records by synthesizing 5% of total bank reconciliation reports.
- Leveraged extensive research on best practices to optimize organizational strategies in financial budgeting presentations.
- Partnered with claims assessors to verify claims details, amplifying the investigation process through the reimbursement of staff and imp rest fund surrenders.
- Mitigated team workload and maximized claims management efficiency by streamlining approximately 200 daily claims under WIBA, EDU-AFYA, and last expense policies.
- Executed the processing of 200 paid-up vouchers daily across multiple branches, ensuring accurate financial records and facilitating timely decision-making.
- Consolidated bank statements with cashbook figures each day, achieving an accuracy rate of 98%, ensuring financial transparency and monitoring discrepancies.
- Oversaw the collection of income from area and revenue offices, streamlining fund processing, which resulted in a 15% reduction in collection times and enhanced revenue forecasting accuracy for NHIF.

### SOFTWARE SKILLS

Python	Financial Analysis	MySQL& Postgres
GCP (Big Query)	Git Version Control	XGBoost &Scikit
Big Data	Excel and PowerBI	MATLAB

### EDUCATION

#### Professional Certificate in Data Science with Python

Jomo Kenyatta University of Agriculture and Technology (JKUAT)

📅 2024   📍 Juja, Kenya

#### Bachelor of Science in Industrial Mathematics

Jomo Kenyatta University of Agriculture and Technology

📅 2019 - 2023   📍 Juja, Kenya

#### Kenya Certificate of Secondary Education

Moi Girls' High School

📅 2014 - 2018   📍 Eldoret

### SKILLS

Data Analysis   Machine Learning Algorithms

Financial Modeling   Mathematical Modeling

Statistical Analysis   Predictive Analytics

Model Selection and Evaluation

Data Processing Optimization

Algorithm Development   Portfolio Analysis

Optimization Techniques

### PROJECTS / CERTIFICATIONS

- Data Science with Python
- Database and SQL for Data Science
- Microsoft Excel and Data Visualization with PowerBI
- Advanced Financial Math and Statistics
- Google Cloud big data and Machine Learning

### HONORS / AWARDS

#### Presidential Awards Adventurous Journey

Silver Level

### REFERENCES

#### Kennedy Chege

Senior Levy Officer, Tourism Fund  
Email: [Kchege@tourismfund.co.ke](mailto:Kchege@tourismfund.co.ke)

#### Erastus Gathathu

Lead Supervisor, JHUB  
Email: [gathathu.ngatia@yahoo.com](mailto:gathathu.ngatia@yahoo.com)

#### Wanjohi Christopher

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