

Gathu Macharia

Actuary & Data Scientist

A theory has only the alternative of being right or wrong. A model has a third probability: it may be right, but irrelevant
Gathu Simon Macharia

Education

- 2025– 2026 **Full Stack Developer & Data Scientist, ALX**
- 2021–2024 **Bsc Statistics and Actuarial Science**, *Dedan Kimathi University of Technology*, Nyeri
Statistics Background and Statistical Modeling using R and Python
- 2024 **Data Science Summer School and Workshop**, *Data Science Africa Africa*, Nyeri
Data science for social good, Computer Vision Data collection, extraction of features and modeling
- 2021–2021 **Cisco Certified Network Association**, *Jomo Kenyatta University of agriculture and Technology*, Kiambu
Basic Networking and Network Visualization
- 2016–2019 **Certificate of Secondary Education Kenya**, *Utumishi Academuy*, Gilgil
Secondary certificate and Computer background

Degree thesis

- title Modeling the Recovery Time of Stock Prices using Accelerated Failure Time Model
- supervisors Dr. Mundia
- description Using statistical survival models to model the survival time of medical condition to be prevalent is widely used by medical researchers. We thought of using the same concept but this time to assess the effects of covariates on recovery time of stocks in Kenyan stocks. The hazard rates were not proportional so we opted for non proportion hazard model which is AFT

Experience

Internship

- 2024–2024 **Data Scientist**, *Info Tech*, Remote
Machine Learning Projects and Data preprocessing
- 2023–2024 **Risk Management and Internal Audit**, *National Social Security Fund*, Nairobi
Utilized Benford's law in fraud detection. Used IDEA software, R and Excel to analyze Audit data. Also made compliance files and was involved in writing reports of respective field.

Job

- 2022–Present **Freelance**, *Freelancer*, Fivver & Upwork
Used both R, SPSS and Python to carry out test of hypothesis, generalized models, Bayesian models, Gradient Boosting Models, Neural Networks, PCA and others.

Languages

Kiswahili Proficient
English Proficient
Gikuyu Proficient

Favourite
Reading
Lingual

Skills

Actuarial Theory Insurance, Investment and Banking theory
Big Data Apache Spark, Hadoop, Bigmemory and ff
R Proficient in statistical Programming Proficient Data Modeling & Visualization
Python Proficient in Machine learning Good Web scrapping
SPSS Statistical Inferencing
EXCEL Data Analysis

Projects

- Used GIS Mapping to visualize the population Density of Kenya in each Sub-county in Python; A heatmap as the output
- Used Decision Trees, Logistic Regression and Neural Network to recommend loan approval or loan denial on loan applications from customers in SPSS
- PCA Used principal Component Analysis for Dimension Reducability in R , prcomp()
- Forecasting the stock prices of NSE-listed Companies using GARCH Extensions.
- Built a predictive model using logistic regression to estimate the probability of customer churn.

and alot more ...

Extra Curricular Activities

- Member f Data Science Africa
- Participated in 2021 Nationals at UON and emerged as winners.
- Actuarial Club
- Data Science Society DSAIC (R Tutor)

References

Name: Dr. Mundia S.M, Lecturer
Position: Project Coordinator
Company: Dedan Kimathi University of Technology
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Email: simon.maina@dkut.ac.ke

Name: Julius Miheso
Position: Internal Auditor
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Name: Gideon Ngome
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