Joel Mande
Statistician | Actuarial Analyst

Tel: +254 796 895 403 | **Email**: joelwanjala09@gmail.com |

GitHub: https://github.com/wajoel | **Homepage**: https://wajoel.github.io/wajoel

PROFESSIONAL SUMMARY

- Statistics and Actuarial science graduate with expertise in statistical modeling, predictive analytics, and financial risk management, particularly in real-world financial applications.
- Skilled in developing data-driven solutions that provide actionable insights, enhance strategic decision-making, and mitigate financial risks, leading to improved business performance and risk management strategies.
- Member of the Actuarial Society, contributing to the development of actuarial practices and advancing professional standards within the field.

WORK EXPERIENCE

Data Scientist   Sep 2024 – Present
Center for Data Science and Artificial Intelligence (DSAIL)   *Nyeri, Kenya*

- Increased coffee yield forecasting accuracy by 30% through advanced statistical modeling in Python and R.
- Designed interactive dashboards with Power BI and Tableau, reducing analysis turnaround time by 25%.
- Conducted multivariate analyses of environmental and economic factors to identify yield fluctuations, offering stakeholders targeted mitigation strategies.
- Collaborated with interdisciplinary teams to develop predictive risk models that improved operational planning.
- Automated data extraction and cleaning processes, reducing manual effort by 40% and enhancing data reliability.
- Designed and facilitated technical workshops on advanced data visualization and forecasting techniques, equipping 20+ professionals with actionable skills that improved team efficiency by 15%.
- Compiled and presented detailed quarterly reports to stakeholders, highlighting key analytical insights that directly led to the implementation of three sustainable agricultural practices within regional farming communities.

NHIF Attachee   Sep 2023 – Dec 2023
National Hospital Insurance Fund (NHIF)   *Nyeri, Kenya*

- Processed and verified over 1,000 insurance claims monthly, ensuring compliance with NHIF's policies and guidelines.
- Assisted in the data entry and management of health insurance records for over 5,000 members, streamlining the registration process and improving data accuracy by 15%.
- Provided customer support to 100+ members weekly, addressing inquiries related to claims, coverage, and benefits, improving member satisfaction through prompt resolution.
- Collaborated with a team of 10+ professionals in executing NHIF's annual compliance audits, leading to improved operational transparency and performance.
- Analyzed claims data and identified key trends in healthcare utilization, contributing to 25+ monthly reports that informed department strategies.

EDUCATION

B.Sc., Statistics and Actuarial Science
Dedan Kimathi University of Technology (DeKUT)   *Nyeri, Kenya*

- Achieved top 10% of the class.
- Conducted an independent study on commodity futures pricing using the Black-Scholes-Merton model.

SKILLS

Technical Skills

DeKUT and Online Courses

- Proficient in programming languages such as Python (NumPy, Pandas, Scikit-learn), R (ggplot2, dplyr), and SQL for data analysis and modeling.
- Experienced in data visualization using Power BI, Tableau, Matplotlib, Seaborn, and Excel.
- Skilled in machine learning, including predictive modeling, regression, classification, clustering, and neural networks.
- Familiar with actuarial and quantitative tools such as SAS, Prophet, VBA, and actuarial models.
- Strong foundation in statistical techniques, including Monte Carlo simulation, time series analysis, multivariate analysis, and hypothesis testing.
- Knowledgeable in financial mathematics, including present value analysis, loss modeling, and investment forecasting.

Soft Skills

DeKUT and DSAIL

- Leading team discussions, facilitating problem-solving sessions, and coordinating meetings to streamline project execution and optimize workflow efficiency.
- Communicating complex statistical insights to both technical and non-technical audiences, delivering structured presentations on actuarial modelling, financial risk assessment, and data-driven decision-making.
- Applying a data-driven mindset, leveraging actuarial and statistical techniques to identify patterns, mitigate risks, and support business strategies.
- Collaborating within multidisciplinary teams to integrate actuarial insights with business operations and client objectives.
- Keeping up with industry advancements in actuarial science, data analytics, and machine learning, applying emerging techniques to enhance decision-making.
- Managing multiple projects efficiently, ensuring timely delivery of analyses, reports, and strategic recommendations.

ACTIVITIES

- Guided over 50 students and professionals on machine learning and statistical analysis projects, achieving a 90% project success rate.
- Designed and implemented more than 10+ actuarial science projects, including yield forecasting models and risk analysis algorithms, recognized for practical impact.
- Partnered with industry experts to create pricing strategies that improved portfolio returns by 15%.
- Delivered presentations on predictive modeling in commodity markets at university research seminars.
- Organized and conducted training sessions on statistical programming and data analytics for undergraduates.