

# DIANA KEMUNTO

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## OBJECTIVE

Seeking a challenging and growth-oriented position in Mathematics and Modelling, where I can apply my skills in statistical analysis, predictive modeling, and computational techniques. Eager to contribute to innovative, data-driven projects that bridge mathematical theory with practical solutions in areas such as data science, financial analytics, and operations research.

## EXPERIENCE

- Highlands Drinks Limited**  November 2023 - December 2023  
*Attachment* Nyeri, Kenya
  - Quality Control: Ensured that beverages met quality and safety standards through routine checks and testing.
  - Production Monitoring: Assisted in the production process, monitored machines, and ensured smooth workflow.
  - Inventory Management: Kept track of raw materials and finished goods to ensure efficient supply chain operations.
  - Data Entry: Recorded production data, inventory levels, and other relevant information for analysis.
  - Packaging and Labeling: Ensured that products were properly packaged and labeled according to company standards.
  - Other roles as assigned by the supervisor.
- Freelance Data Analyst & Research Assistant** August 2022 – May 2025  
*Fiverr (Remote)*
  - Completed diverse projects involving data analysis, academic research, and machine learning.
  - Utilized Python (Pandas, Scikit-learn), Excel, and visualization tools such as Matplotlib and Seaborn.
  - Assisted clients with data preprocessing, model building, statistical reporting, and result interpretation.
  - Delivered high-quality research writing and data-driven reports.
  - Built strong client relationships through effective communication and timely project delivery.
- British Airways Data Science Virtual Experience Programme (via Forage)** August 2023  
*Virtual Experience*
  - Gained practical experience in web scraping to extract company insights.
  - Predicted customer buying behavior using data science techniques.
- STEM Tutor – Community Education Program** January 2023 – november 2024  
*Volunteer*
  - Taught mathematics and introductory Python programming to high school students weekly.
  - Improved students' problem-solving skills and confidence in STEM subjects.
- Workshop Facilitator – Peer Communication Training, Dedan Kimathi University** February 2023 – May 2024  
*Volunteer*
  - Led workshops on communication skills, teamwork, and academic presentation.
  - Boosted student participation in group discussions and presentations by 30%.

## EDUCATION

- Bachelor's Degree (BSc.)** October 2021 – December 2024  
*Dedan Kimathi University of Technology* Nyeri, Kenya  
BSc. Mathematics and Modelling Process  
October 2021 – December 2024
  - Class: Second upper
- Kenya Certificate of Secondary Education (K.C.S.E)** December 2019  
*Ikonge Girls P.A.G Secondary School* Nyamira, Kenya
  - Grade: B-
- Kenya Certificate of Primary Education (K.C.P.E)** October 2015  
*Tenduet Primary School* Kericho, Kenya
  - Marks: 300

CERTIFICATIONS

Data Science Virtual Experience Programme – British Airways (via Forage)

Completed: August 6, 2023

- Gained practical experience in web scraping to extract company insights.
- Predicted customer buying behavior using data science techniques.

PROJECTS

PROJECTS

- **Comparison of Machine Learning Models for Predicting House Prices**  
*February 2024 – September 2024*  
Conducted an in-depth analysis to predict house prices using Decision Tree and Random Forest models. Evaluated the performance of both models using RMSE and R<sup>2</sup> metrics, with Random Forest outperforming the Decision Tree model. Focused on hyperparameter tuning using Grid Search for optimization. The project included steps such as data preprocessing, feature selection, and model evaluation.  
**Technologies used:** Python, Pandas, Scikit-learn, Matplotlib, Seaborn
- **Fraud Detection in Financial Transactions Using Machine Learning**  
*October 2024 – April 2025*  
Conducted a fraud detection project to identify suspicious financial transactions using classification models. Performed exploratory data analysis and handled missing values appropriately. Trained and compared Logistic Regression, Decision Tree, and Random Forest models. Evaluated their performance using metrics such as precision, recall, and F1-score. Among the models, Random Forest achieved the best results in identifying fraud cases. The project involved steps such as data preprocessing, feature engineering, model training, and performance evaluation.  
**Technologies used:** Python, Pandas, Scikit-learn, Matplotlib

SKILLS AND EXPERTISE

- |  |                              |  |
|--|------------------------------|--|
| ◦ Data Entry and Verification (Excel, ERP systems) | ◦ Stock Auditing             | ◦ Problem-solving                          |
| ◦ Data Science                                     | ◦ Ethical Research Practices | ◦ Basics in SQL                            |
| ◦ Decision-making                                  | ◦ Excel for Analysis         | ◦ Python Programming Language              |
| ◦ Inventory Management                             | ◦ Good Communication Skills  | ◦ Research Skills (including LaTeX skills) |
|  | ◦ Mathematics                |  |

LEADERSHIP EXPERIENCE

- **School Captain**  
*January 2018 - December 2019*  
*Ikonge Girls P.A.G Secondary School*  
\* Led and represented the student body, advocating for student concerns and collaborating with the school administration.  
\* Managed student activities and helped organize key school events, increasing student participation by 20%.  
\* Took the initiative in creating a peer mentorship program, improving overall student academic performance.
- **Group Leader**  
*January 2022 - August 2024*  
*Computational Mathematics and Data Analytics*  
\* Coordinated group projects, ensuring effective communication and collaboration among team members.  
\* Enhanced data analysis skills by leading discussions and presenting findings to peers and faculty.  
\* Developed problem-solving strategies that improved group performance in assignments and exams.
- **Communication Skills Leader**  
*January 2024 - August 2024*  
*Various Workshops*  
\* Conducted workshops focusing on effective communication techniques and strategies for peer learning.  
\* Facilitated group activities that promoted teamwork and enhanced interpersonal skills among participants.  
\* Received positive feedback from participants, leading to an increase in workshop attendance by 30%.

REFERENCES

References are available on request.



Figure 1: British Airways certificate