

JOSEPH MAINA

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GitHub: <https://github.com/Joseph89155>

Portfolio: <https://joe-analyst.vercel.app>

PROFESSIONAL SUMMARY:

Aid organizations make data-driven decisions by transforming raw data into actionable insights through dashboards, predictive models, and scalable data solutions. With a strong foundation in both data analytics and data science, I use tools like Python, SQL, Power BI, and Excel to analyze trends, optimize performance, and communicate findings clearly to stakeholders. My exposure to full-stack technologies like React and Node.js also enables me to build and deploy web-based tools that make data more accessible and interactive across teams.

TECHNICAL SKILLS:

- Languages & Tools: Python, SQL, JavaScript, HTML/CSS, R, Git, Bash.
- Libraries & Frameworks: React, Node.js, Pandas, NumPy, Scikit-learn, Express.
- Data & Visualization: Power BI, Google Data Studio, Tableau, Excel, Matplotlib, Seaborn.
- Databases: MongoDB, MySQL, PostgreSQL.

WORK EXPERIENCE:

Excelerate	2024 - Present
Data Analyst Associate.	
Data Analyst Associate Intern at Excelerate.	
<ul style="list-style-type: none">• Designed and developed interactive dashboards using Google Data Studio, enabling real time insights for executive decision-making.• Collaborated with a global team to identify key performance indicators, improving cross functional reporting accuracy by 25%.• Translated raw datasets into compelling visual stories, enhancing stakeholder understanding and engagement.• Conducted exploratory data analysis (EDA) to uncover trends, resulting in strategic recommendations adopted by leadership.• Improved data visualization efficiency by standardizing templates and visual best practices, reducing turnaround time by 30%.	
Gertrude’s Children’s Hospital.	2024 – 2025
Full-Stack Developer Intern.	
<ul style="list-style-type: none">• Built responsive web applications using React, Node.js, and MongoDB, improving patient service access by 40%.• Collaborated with cross-functional teams to integrate front-end features with backend APIs, reducing system error by 20%.• Developed a secure authentication system, enhancing patient data privacy and system reliability.• Optimized database queries and indexing strategies, improving app performance and load time by 35%.• Led weekly code reviews and testing cycles, ensuring consistent quality and maintainability of the codebase.	

KCA University.

2022 – 2025

Data Analyst & Scientist Student.

- Conducted data wrangling and preprocessing tasks using Python and SQL to prepare datasets for analysis projects.
- Designed and implemented machine learning models for predictive analytics, achieving over 85% model accuracy in class projects.
- Utilized tools like Excel, Power BI, and Python to visualize complex data trends and present findings to faculty and peers.
- Collaborated on team projects to solve real-world data problems, gaining hands-on experience in hypothesis testing and A/B analysis.
- Created interactive reports and dashboards to support academic research and student-led initiatives.

EDUCATION

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- Bachelor of Science in Information Security | KCA University | 2022 - 2025.
 - Diploma in Computer Science | Zetech University | 2019 - 2021
 - Kenya Certificate of Secondary Education (KCSE) | Bavuni Secondary School, Kenya | 2015 - 2018.

Certifications

- Data Analytics Professional Certificate.
- Data Science Professional Certificate.
- Machine Learning Professional Certificate.
- Python Programming Professional Certificate.
- SQL Professional Certificate.

PROJECTS

Credit Card Fraud Detection – Scikit-learn, Snap ML, SMOTE | [Link](#)

- Developed fraud detection models using Decision Tree and SVM to identify suspicious credit card transactions in imbalanced datasets.
- Applied SMOTE for class balancing and conducted extensive EDA to uncover transaction patterns and risk indicators.
- Evaluated model performance using recall, precision, F1-score, and AUC, prioritizing high-recall results to minimize undetected fraud.
- Demonstrated how machine learning can enhance financial security and reduce monetary losses by identifying fraudulent behavior in real time.

COVID-19 Forecasting and Geo-Visualization – Python, Jupyter Notebook, Plotly | [Link](#)

- Conducted large-scale data cleaning and preprocessing to prepare global COVID-19 datasets for analysis and modeling.
- Built a linear regression model to forecast the spread of COVID-19, aiding in anticipatory healthcare planning.
- Created interactive geospatial visualizations using Plotly to map infection trends, enabling better public awareness and policy response.
- Showcased how data science tools can support crisis response, early warning systems, and global health communication.

Bike Sales Excel Dashboard | [Link](#)

- Designed an interactive Excel dashboard to analyze customer demographics, regional trends, and sales performance.
- Streamlined data cleaning and used pivot tables and slicers for segmentation and drill-down analysis.
- Provided business insights that helped optimize marketing strategies and inventory distribution.

Data Professional Survey – Power BI Analysis | [Link](#)

- Visualized trends in salary, job satisfaction, and tools used among global data professionals.
- Developed a dynamic Power BI dashboard, enabling stakeholders to slice data by region, title, and experience level.
- Identified correlations between learning methods and salary growth to inform upskilling strategies.

Health Analytics Project – SQL, BI & Excel | [Link](#)

- Used advanced SQL queries to extract and analyze hospital data on patient visits, conditions, and outcomes.
- Designed Excel and Power BI dashboards to support hospital leadership in decision-making.
- Uncovered seasonal trends in patient intake and recommended changes in staffing allocation.
- Improved reporting efficiency and informed resource planning at a departmental level.

Loan Approval & Financial Risk Analysis | [Link](#)

- Built a classification model in Python to predict loan approval likelihood with over 90% accuracy.
- Conducted EDA, feature engineering, and model evaluation using libraries like Pandas, Scikit-learn, and Matplotlib.
- Demonstrated how machine learning can reduce approval delays and improve financial risk assessment.

REFEREES

Uri Gakuru – Cloud Engineer, Gertrude's' Hospital

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