### **JOSEPH MAINA**

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GitHub: <a href="https://github.com/Joseph89155">https://github.com/Joseph89155</a>
Portfolio: <a href="https://joe-analyst.vercel.app">https://joe-analyst.vercel.app</a>

#### **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 webbased 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:**

Data Scientist Feb 2025 - Present

#### Deloitte Australia (via Forage) — Remote

- Embark on full data science consulting projects, addressing a client's customer churn challenge through datadriven strategy formulation.
- Frame business goals and hypotheses after reviewing client background and requirements; proposed a structured investigation plan via professional communication.
- Performs exploratory data analysis and cleaning in Python to uncover behavioral churn trends and data quality issues.
- Engineer predictive features based on transactional patterns and customer segmentation, enhancing model performance and business interpretability.

**Tools & Skills:** Python, Pandas, Matplotlib, Seaborn, Random Forest, Data Cleaning, Feature Engineering, Client Communication, EDA, Business Framing

Excelerate May 2024 - Jan 2025

#### Data Analyst Associate.

Data Analyst Associate at Excelerate.

- 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.

# J.P. Morgan Chase & Co. (via Forage) — Remote

Jan 2023 - Feb 2024

- Software Engineering Virtual Intern.
  - Simulated end-to-end software development for high-stakes, enterprise-scale banking systems, following JPMorgan's engineering practices.
  - Engineered a Spring Boot microservice integrating Kafka for asynchronous event streaming, improving system decoupling and scalability.
  - Integrated an H2 in-memory database to enable fast, lightweight data persistence and CRUD functionality for backend services.
  - Consumed and exposed RESTful APIs using Spring MVC to simulate secure third-party integration and interservice communication.

Tech Stack: Java, Spring Boot, Maven, Apache Kafka, REST API, SQL, H2 Database KCA University.

Sep 2022 – July 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
- 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**

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

#### **PROJECTS**

# HR Analytics Dashboard | Tableau Link

- Designed a Tableau dashboard to track hiring trends, diversity metrics, and compensation patterns across departments.
- Helped HR leadership uncover gender gaps and inform strategic workforce decisions.

#### Hospitality BI Dashboard | Power BI Link

- Built Power BI dashboards to monitor revenue, ADR, and RevPAR across hotel branches using DAX and star schema.
- Enabled executives to optimize pricing and resource allocation through city-level performance insights.

#### 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.

#### MLOps Housing Price Prediction | Python, Scikit-learn, Flask Link

- Built an ML pipeline with preprocessing, GridSearchCV tuning, and deployment via Flask API.
- Achieved R<sup>2</sup> = 0.72 for real-time housing price predictions supporting real estate decision-making.

#### Loan Approval Prediction | Python Link

- Developed a classification model using Decision Trees to automate loan approvals and assess risk.
- Improved approval accuracy and demonstrated ML's value in credit decision systems.

#### **House Price Estimator | Python Link**

- Built a linear regression model to predict housing prices based on area.
- Visualized model accuracy using R<sup>2</sup> and RMSE, demonstrating core regression techniques.

#### **REFEREES**

#### Uri Gakuru – Cloud Engineer, Gertrude's' Hospital

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# Erick Nderitu – IT Manager, Windsor Gulf and Country Club

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