

# Sharon Muiruri

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## SKILLS

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**Programming & Databases:** Python (Pandas, NumPy, Scikit-learn), SQL, MongoDB

**Data Visualization:** Tableau, Power BI, Matplotlib, Seaborn

**Machine Learning:** TensorFlow, PyTorch, Scikit-Learn, Neural Networks, Keras

**Big Data & Devops:** Apache Spark, Hadoop, Docker, Kubernetes,

**Cloud Platforms:** Microsoft Azure

**Soft Skills:** Effective communication, Critical thinking, Adaptive team player, Problem-solving

## EXPERIENCE

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### Codsoft

Sep 2023 - present

#### *Machine Learning Intern*

- Engineered data pipelines and developed predictive machine learning models to address business challenges, resulting in a 15% improvement in decision-making efficiency.
- Built and deployed a customer churn prediction model, achieving a 20% increase in customer retention rates through targeted interventions.
- Enhanced a fraud detection classification model by improving preprocessing and feature engineering, leading to a 10% increase in model accuracy.

### Zizu Investments Limited

April 2023 - July 2024

#### *Receptionist*

- Assisted over 30 clients and prospective clients per week by providing detailed information about products and services, improving customer satisfaction by 30%.
- Prepared lease agreements, tender documents, and company profile documents with 100% accuracy and compliance, reducing document errors by 25%.
- Managed employee leave applications using the Wingubox system, streamlining HR processes by reducing manual effort by 40%.
- Addressed and resolved client and employee queries and complaints efficiently through phone, email, and general correspondence, enhancing client communication by 20%.
- Compiled monthly muster roll reports with a 98% accuracy rate, effectively tracking employee attendance and maintaining up-to-date records.

### Flapmax AI Institute

Sep 2022 - Dec2022

#### *Data Science Intern*

- Implemented and customized a Commerce Marketplace SaaS Accelerator on Microsoft Azure, enhancing system scalability by 30% and improving performance metrics.
- Deployed two FastAPI applications using Kubernetes and Docker, improving containerization and orchestration efficiency by 20%.
- Collaborated with cross-functional teams to develop a car damage detection model using Mask-RCNN, increasing object detection accuracy by 15%.

## EDUCATION

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### Massachusetts Institute of Technology

2022 - 2023

Data Science and Machine Learning Certificate

**Awards & Honors:** Grade A

### Jomo Kenyatta University of Agriculture and Technology

2018 - 2022

Bachelor of Business Information Technology

**Awards & Honors:** Second Class Honors

## PROJECTS

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### Credit Card Default Prediction

- Engineered a predictive model to identify customers likely to default on credit card payments.
- Utilized scikit-learn and pandas libraries for data cleaning, analysis, and modeling, conducted feature engineering and applied SMOTE to balance the dataset.
- Built and evaluated five classification models: Logistic Regression, Decision Trees, Random Forest, Gradient Boosting, and XGBoost, with Random Forest achieving the highest ROC AUC score.

### Store Sales Forecasting

- Created a predictive model to forecast six weeks of daily sales for 1,115 Rossmann stores.
- Performed data analysis, handled missing values and performed outlier treatment using Z-score.
- Developed and evaluated five regression models: Linear Regression, Stochastic Gradient Descent Regressor, Decision Trees Regressor and Random Forest Regressor. The best performing model was the Random Forest with the highest R2 score of 0.96.

### Hotel Booking Cancellation Prediction

- Developed a model to predict hotel booking cancellations, aiding in the development of profitable cancellation and refund policies.
- Conducted univariate and bivariate analysis to identify key factors influencing booking cancellations.
- Built four classification models: Logistic Regression, Support Vector Machine, Decision Trees, and Random Forest, with Random Forest achieving the highest accuracy score of 90%.

## OTHER

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**Certifications:** WorldQuant University - Applied Data Science Lab (2024)

**Volunteering:** Zindi – Data Science Volunteer, This is me community - Volunteer

**Languages:** English and Kiswahili