



## 1. JOB TITLE: DATA SCIENTIST

**Department:** DATA MANAGEMENT OFFICE

**Location:** Tanzania Head Office

**Number of openings:** 2

### Job Purpose

This role leverage data analytics, statistical modeling, and machine learning techniques to develop AI-driven solutions that enhance banking operations, optimize customer experiences, and drive business insights.

### Principle Responsibilities

- Develop and implement predictive and prescriptive ML models for key banking applications such as fraud detection, credit risk scoring, and customer segmentation.
- Perform exploratory data analysis (EDA) to uncover insights and inform model development.
- Work closely with business stakeholders to understand banking challenges and translate them into AI-driven solutions.

- Conduct feature engineering, selection, and dimensionality reduction to enhance model performance.
- Implement time-series forecasting, NLP, or deep learning techniques as needed for specific banking use cases.
- Use statistical analysis, hypothesis testing, and A/B testing to validate AI-driven recommendations.
- Collaborate with MLOps and engineering teams to deploy models into production with API integrations and cloud-based solutions.
- Monitor model performance in production, retraining models when necessary to handle data drift.

### **Qualifications Required**

- 3+ years of experience in machine learning, statistical modeling, or data analysis.
- Proficiency in Python, SQL, and ML frameworks such as Scikit-learn, XGBoost, TensorFlow, or PyTorch.
- Strong understanding of statistics, probability, and data science principles.
- Experience with data visualization tools (Tableau, Power BI, Matplotlib, Seaborn) to communicate insights effectively.
- Familiarity with cloud-based ML solutions on AWS, Azure, or GCP.
- Strong problem-solving skills and ability to work with large datasets.
- Strong analytical and critical-thinking skills.
- Ability to translate business challenges into AI/ML solutions.
- Effective communication and data storytelling skills.
- High attention to detail and model accuracy.
- Ability to work both independently and as part of a team.

**Deadline:** 2025-12-24  
**Employment Terms:** PERMANENT

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**2. JOB TITLE: SPECIALIST; AI GOVERNANCE AND ETHICS**

**Department:** DATA MANAGEMENT OFFICE  
**Location:** Tanzania Head Office  
**Number of openings:** 1

**Job Purpose**

Responsible for developing, implementing, and overseeing bank’s Responsible AI policies, frameworks, and ethical standards. The role ensures that all Artificial Intelligence (AI) and Machine Learning (ML) models adhere to internal governance principles, regulatory requirements, and ethical norms promoting fairness, transparency, and accountability across all AI initiatives.

**Principle Responsibilities**

- Develop, implement, and maintain Responsible AI and Ethics frameworks in line with Bank’s AI/ML governance strategy.
- Promote ethical AI practices across all AI/ML projects and ensure compliance with regulatory and organizational standards.
- Conduct ethical risk assessments for AI models to ensure transparency, explainability, and fairness.
- Monitor deployed AI systems for ongoing compliance with fairness, privacy, bias mitigation, and accountability standards.

- Work with data scientists, compliance officers, and legal teams to ensure ethical handling of personal and sensitive data in line with Tanzania’s Data Protection Act and Bank of Tanzania regulations.
- Maintain documentation for ethical reviews, model validation, and audit trails to support regulatory inspections.
- Provide training and awareness sessions on Responsible AI, model transparency, and data ethics for AI practitioners and stakeholders.
- Collaborate with the Data Governance Council to align AI governance with enterprise-wide data governance policies.
- Advise on the ethical implications of AI use cases, ensuring responsible innovation and alignment with Bank’s corporate values.
- Support the AI Model Risk and Governance Framework through continuous evaluation of ethical compliance.

## Qualifications Required

- Bachelor’s degree in computer science, Data Science, AI, Law, or a related discipline.
- Certification or formal training in **AI Governance, Ethics, or Responsible AI** is an advantage.
- Minimum of **4 years’ experience** in AI/ML governance, data ethics, compliance, or risk management in the financial sector.
- Experience in developing or auditing AI systems for bias, fairness, and explainability.
- Working knowledge of data protection regulations and banking sector compliance frameworks.
- Demonstrated ability to collaborate across multi-disciplinary teams (Legal, Compliance, Risk, and IT).
- Python and R programming.

- PyTorch (or equivalent ML framework).
- Database Management (SQL and NoSQL), Data Encryption and Anonymization techniques.
- Cloud Computing (Azure, on-prem hybrid environment).
- Scripting and Policy Automation.
- Familiarity with AI ethics frameworks (e.g., OECD, EU AI Act, Deloitte Trustworthy AI Framework).

**Deadline:** 2025-12-24

**Employment Terms:** PERMANENT

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### **3. JOB TITLE: MANAGER; AI GOVERNANCE & MODEL RISK**

**Department:** DATA MANAGEMENT OFFICE

**Location:** Tanzania Head Office

**Number of openings:** 1

#### **Job Purpose**

Responsible for establishing, implementing, and overseeing Bank's AI governance frameworks and model risk management practices. The role ensures that all AI and Machine Learning (ML) models are developed, deployed, and monitored in accordance with regulatory, ethical, and organizational standards.

#### **Principle Responsibilities**

- Develop, implement, and maintain the AI Governance Framework and Model Risk Management Framework aligned with Bank's strategic objectives and regulatory requirements.

- Ensure that all AI and ML models meet standards for transparency, explainability, fairness, and robustness throughout the model lifecycle.
- Oversee model validation, approval, and monitoring processes to ensure compliance with internal governance and external regulatory expectations.
- Lead periodic model risk assessments to identify, measure, and mitigate risks associated with AI and ML models.
- Collaborate with the Data Governance Council, Risk Management, and Compliance Teams to integrate AI governance into the wider enterprise governance structure.
- Define and monitor Key Risk Indicators (KRIs) and Key Performance Indicators (KPIs) for AI models and related governance activities.
- Drive awareness, training, and organizational accountability for responsible AI use, ensuring ethical and compliant implementation across departments.
- Establish audit trails and documentation standards for all AI and ML models to support regulatory reviews and internal audits.
- Ensure alignment of AI governance with the Tanzania Data Protection Act, Bank of Tanzania Guidelines, and CRDB's internal model governance framework and AI policy.
- Act as the subject matter expert on AI ethics, risk controls, and regulatory compliance, advising leadership on emerging trends and risks in AI model governance.

### **Qualifications Required**

- Bachelor's degree in data science, Computer Science, Risk Management, Statistics, or a related field (master's degree preferred).
- Minimum of 5 years' experience in model governance, AI/ML model risk, or data governance within the financial services or regulated sector.
- Demonstrated experience in establishing or managing AI or model risk frameworks.

- Strong understanding of regulatory frameworks, such as the Bank of Tanzania guidelines, Data Protection Act, and international AI governance standards.
- Experience with AI/ML development environments and version control tools.
- Proven ability to lead cross-functional teams and promote a culture of responsible and ethical AI.
- AI Lifecycle Management (development, validation, deployment, and monitoring).
- Model Risk Management and Model Validation Practices.
- Programming in Python, R, or Java.
- Data Governance and Quality Management
- Ethical Judgment, Strategic, Risk-Based Decision-Making and Analytical Thinking.
- Change Management and Organizational Awareness.
- Ability to Translate Technical Concepts into Governance and Policy Language.

**Deadline: 2025-12-24**

**Employment Terms: PERMANENT**

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#### **4. JOB TITLE: MACHINE LEARNING ENGINEER (ML)**

**Department: DATA MANAGEMENT OFFICE**

**Location: Tanzania Head Office**

**Number of openings: 1**

## **Job Purpose**

Responsible for designing, building, optimizing, and deploying machine learning (ML) models into production environments. The role bridges the gap between data science and operational systems by ensuring that models are scalable, secure, and performant.

## **Principle Responsibilities**

- Develop, deploy, and operationalize machine learning and deep learning models in collaboration with data scientists and MLOps engineers.
- Build and maintain model APIs, microservices, and serving infrastructures for real-time and batch inference.
- Ensure model scalability, performance, and security in production environments.
- Implement CI/CD pipelines for seamless integration, testing, and deployment of ML models.
- Collaborate with data engineers to optimize data ingestion, preprocessing, and feature engineering for model readiness.
- Monitor deployed models for drift, accuracy degradation, and operational performance, implementing retraining pipelines as needed.
- Contribute to the design and maintenance of ML infrastructure and containerized environments using tools like Docker and Kubernetes.
- Work closely with the Data Governance and AI Governance teams to ensure compliance with ethical, regulatory, and operational standards.
- Document ML processes, model configurations, and versioning for auditability and reproducibility.
- Continuously research and integrate emerging ML engineering practices and tools to enhance model lifecycle management.



## Qualifications Required

- Bachelor's degree in Computer Science, Data Science, Software Engineering, or a related technical field.
- 3–5 years of experience in machine learning engineering, data engineering, or related roles.
- Proven experience deploying and maintaining ML models in production environments.
- Practical knowledge of API development, DevOps tools, and container orchestration.
- Familiarity with MLOps pipelines, model monitoring, and version control systems (Git).
- Experience working in financial institutions or regulated environments is an added advantage.

**Deadline: 2025-12-24**

**Employment Terms: PERMANENT**

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