



MEGHALAYA BASIN DEVELOPMENT AUTHORITY (MBDA)

C/o Meghalaya State Housing Financing Cooperative Society, Upper Nongrim Hills,
Behind Bethany Hospital, Shillong, East Khasi Hills District, Meghalaya – 793003

(Reg No. SR/MBDA – 4/11 OF 2011)

Phone: +91-364- 2522921/2522992

Website: www.mbda.gov.in, E-mail: admin.mbda@gov.in

TOR for Data Scientist

1. Key Responsibilities

Data Management & Integration

- Manage and integrate datasets from ViewZen Analytics, AppVerse, Excel-based MIS systems, and MongoDB databases.
- Develop automated data workflows for data cleaning, transformation, and consolidation.
- Ensure data quality, validation, and consistency across datasets.
- Support secure storage and management of data using cloud storage services such as AWS S3.

Data Analysis & Visualization

- Perform statistical and exploratory data analysis using Python and Excel.
- Develop dashboards and reports using Power BI and other visualization tools.
- Generate insights and analytical reports to support programme monitoring and decision making.

Reporting & Data Communication

- Present analytical findings through clear data storytelling and visual reports.
- Support programme teams in interpreting data for planning and performance tracking.

Collaboration & Support

- Work with programme teams to improve data collection and reporting systems.
- Assist in strengthening institutional data practices and documentation.

2. Technical Skills

- Strong proficiency in Python for data analysis including libraries such as Pandas, NumPy, Matplotlib/Seaborn, and Scikit-learn for building models related to prediction, regression, classification, and forecasting analysis.
- Experience with Power BI for interactive dashboards, data modelling, and report development.
- Advanced Microsoft Excel skills, including functions such as VLOOKUP, INDEX–MATCH, Pivot Tables, Power Query, data cleaning, and automated reporting.
- Working knowledge of MongoDB or similar database systems for querying, managing, and processing structured and semi-structured data.
- Experience in data cleaning, transformation, and statistical analysis for large and multi-source datasets.
- Ability to perform predictive and forecasting analysis using statistical techniques to analyze trends and support programme monitoring.
- Knowledge of time-series analysis and regression techniques for forecasting programme indicators and performance trends.
- Experience in ETL (Extract, Transform, Load) processes and automated data pipeline development.
- Familiarity with SQL for data querying and database management.
- Experience in data validation, quality checks, and data standardization across datasets.
- Familiarity with cloud storage platforms such as AWS S3 for secure data storage and management.
- Ability to develop analytical reports, dashboards, and visual insights to support evidence-based decision making.
- Strong data interpretation and data storytelling skills for presenting insights to programme and management teams.

3. Required Qualifications

Essential Qualification: Post Graduate in Data Science, Computer Science, Artificial Intelligence, Machine Learning, Statistics, Mathematics, Applied Mathematics, Data Analytics, Business Analytics or Post Graduate in Engineering with specialized in Computer Science, Information Technology, Data Science, Artificial Intelligence, Machine Learning.

Essential Requirements

1. Good written and verbal communication
2. Experience working with multiple stakeholders
3. Experience working with vendors to take care of the implementation of the projects from end to end.
4. Should be available to work whenever necessary including holidays,



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TOR for Data Analyst

1. Key Responsibilities

Data Management

- Compile and manage datasets from multiple sources including ViewZen Analytics, AppVerse, Excel-based MIS systems, and MongoDB databases.
- Perform data cleaning, validation, and standardization to ensure data accuracy and consistency.
- Maintain organized datasets and support periodic updates of programme data.

Data Analysis

- Conduct descriptive and exploratory data analysis using Excel and Python.
- Generate periodic analytical summaries on programme performance, field activities, and financial progress.
- Identify trends, patterns, and inconsistencies within datasets.

Dashboards & Reporting

- Develop and maintain dashboards using Power BI for programme monitoring.
- Prepare regular reports, data summaries, and visual presentations for management review.
- Support programme teams in interpreting dashboard outputs.

Data Support to Programme Teams

- Assist field and programme teams in improving data collection formats and reporting systems.
- Ensure timely compilation of data required for monitoring and evaluation.
- Support documentation and data archiving processes.

2. Technical Skills

- Strong Microsoft Excel skills and basic automation.
- Experience with Power BI for dashboard development and reporting.
- Basic to intermediate Python skills for data analysis, including Pandas and NumPy.
- Familiarity with SQL queries for data extraction and analysis.
- Working knowledge of MongoDB or similar databases.
- Experience in data cleaning, validation, and dataset preparation.
- Ability to prepare data summaries, charts, and analytical reports.
- Understanding of basic statistical analysis and trend analysis.

3. Required Qualifications

Essential Qualification: Graduate or Post Graduate in Engineer with specialized in Computer Science, Information Technology, Data Science or Graduate or Post Graduate in Computer Science, Mathematics, Statistics, Finance, Economics, Data Analytics.

Essential Requirements

1. Good written and verbal communication
2. Knowledge of database management and data validation techniques.
3. Understanding of data confidentiality and data management practices.