

Job Description: Research Assistant

(Open-Source Data Engineering & Dashboard Development)

Location: Remote or On-Campus (as agreed)

Duration: 3- 4 months (extendable up to 6 months)

Start Date: Immediate

Compensation: Stipend commensurate with skills and experience, and as per IIMA guidelines.

About the Role

We are looking for a motivated **Research Assistant** to build a fully open-source, executive-level analytics dashboard. The tool will integrate multiple data sources, run automated pipelines, and present insights for strategic decision-making and governance review.

The role is ideal for candidates passionate about **open-source analytics, data engineering, visualisation, and decision-support tools**.

Key Responsibilities

1. Open-Source Dashboard Development

- Build an interactive dashboard using **R Shiny, Python Dash**, or other open-source frameworks.
- Develop modular panels (financial metrics, performance tracking, external indicators, governance signals).
- Ensure reproducibility using open-source libraries only.

2. Data Collection & Pipeline Engineering

- Use open-source tools for web scraping, APIs, and data extraction (R: rvest, Python: requests, BeautifulSoup).
- Design automated ETL/data-refresh pipelines using **CRON, Airflow-OSS**, or R/Python-based schedulers.
- Store and manage data using open-source systems (e.g., **PostgreSQL, DuckDB, SQLite**).

3. Analytics & Modelling

- Build well-documented analytical scripts for trend analysis, time-series metrics, KPIs, and early-warning indicators.
- Implement models in pure R/Python using open-source packages (e.g., tidyverse, data.table, pandas, statsmodels).

4. Reporting & Documentation

- Generate open-source-based visual outputs (ggplot2, plotly, matplotlib).
- Prepare markdown-based reports (e.g., **R Markdown, Quarto, Jupyter Notebooks**).
- Create complete documentation, including installation, dependencies, workflows, and maintenance guides.

Required Skills & Qualifications

- Bachelors (completed) in **Data Science / Statistics / Economics / Computer Science / Finance / Analytics** programs.
- Strong proficiency in **R** or **Python** using exclusively open-source libraries.
- Experience with open-source scraping, parsing, and data-cleaning tools.
- Ability to build clear, functional dashboards using open-source frameworks.
- Strong analytical thinking and attention to reproducibility and documentation.

The last date for submission of applications is **27th December 2025**. Applicants are requested not to make follow-up inquiries. Only shortlisted candidates will be contacted.

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