

The Data Analyst Role

Responsibilities of a Data Analyst

- Using statistical techniques
- Analyzing patterns
- Preparing reports and charts
- Creating appropriate documentation

Technical Skills

1. Expertise in using spreadsheets: Microsoft Excel or Google Sheets
2. Proficiency in statistical analysis and visualization tools and software: IBM Cognos, IBM SPSS, Oracle visual analyzer, Microsoft Power BI, SAS, and Tableau
3. Proficiency in programming languages: R, Python, C++, Java, and MATLAB
4. Good knowledge of SQL and ability to work with data in relational and NoSQL databases
5. The ability to access and extract data from data repositories: Data Marts, Data Warehouse, Data Lakes, and Data Pipelines
6. Familiarity with Big Data processing tools: Hadoop, Hive, and Spark

Functional skills

1. Proficiency in Statistics: Analyze data, validate the analysis, identify fallacies and logical errors
2. Analytical skills: research and interpret data, theorize, make forecasts
3. Problem-solving skills: come up with possible solutions for a given problem
4. Probing skills: identify and define the problem statement and desired outcome
5. Data visualization skills: create clear and compelling visualizations to present the analysis
6. Project management skills: manage the process, people, dependencies, and timelines

Soft skills:

1. Work collaboratively with business and cross-functional teams
2. Communicate effectively to report and present your findings
3. Tell a compelling and convincing story
4. Gather support and buy-in for your work
5. Curiosity: Allowing new questions to surface and challenging your own assumptions and hypothesis
6. Intuition: having a sense of the future based on pattern recognition and past experiences

A day in the life of a Data Analyst

1. Acquiring data from varied sources
2. Creating queries for fetching data from data repositories
3. Looking for insights in data
4. Creating reports and dashboards
5. Interacting with stakeholders for gathering information and presenting findings

Cleaning and preparing data for analysis