

Industry 4.0 job roles in demand

Data analysis and management job roles

Data Scientist

Job Description

Responsible for application of data science methods, processes, algorithms and systems to extract knowledge and insights from structured and unstructured data

Key Responsibilities

- Design, develop and maintain **innovative analytical solutions** using machine learning, predictive models, recommendation engines, and optimisation models
- Identify what data is available and relevant to the problem, **design and develop strategic methods** for data collection, integration and retention
- **Advise and communicate implications** of the data for processes and decisions to stakeholders, and propose implications for future business opportunities

SKILLS AND OTHER REQUIREMENTS

- **Data programming languages:** Python, R, SQL, Shell Scripting etc.
- **Quantitative analysis and statistics:** Practical statistics or modeling experience
- **Data distribution systems:** Redshift, BigQuery, Hadoop, Spark, Amazon Web Services etc.
- **Business intelligence:** Practical in-depth knowledge of data integration, metadata, BI analytics tools
- **Data visualisation:** Well-versed with tools such as Tableau, Power BI, Python, JavaScript etc.
- **Machine learning:** Able to develop self-learning algorithms to enhance automated processes

COMPANIES HIRING FOR THIS JOB ROLE

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| • Agility | • FedEx | • Toll Group |
| • Amazon | • Foodpanda | • UPS |
| • DHL | • Lazada | |

(The above list is not exhaustive)

Number of local job postings ¹	5
Number of global job postings ¹	15

Data scientists are typically hired by **larger multinational corporations** and **technology startups** to apply a scientific approach to logistics processes. There is a constant and high turnover in these jobs, with loss of talent to sectors such as IT, e-commerce, banking, retail etc. Generally, most Singaporean **SMEs do not have the appetite** for hiring data scientists in-house.

Typical education and experience requirements: Bachelor's or Master's degree in Mathematics, Computer Science, Information Management, Statistics or equivalent; At least five years relevant research or work experience preferred.

Key attributes: Constant learner mindset; complex problem-solving; strong logical, analytical and deductive capabilities.