DATA ANALYST

ALSO KNOWN AS: BUSINESS INTELLIGENCE ANALYST | DATA SCIENTIST | STATISTICAL ANALYST | DATA MINING SPECIALIST

BE THE MODERN-DAY DETECTIVE.

In a world driven by information, Data Analysts sift through vast amounts of data to uncover valuable insights and drive informed decision-making.

KEY SKILLS

Skills which may benefit anyone considering a job as a data analyst include:

- Data visualisation
- Problem solving
- Programming
- SQL
- Statistical Analysis

VALUES & ATTRIBUTES

Values and attributes of anyone considering a job as a data analyst include:

- Analytical
- Attention to detail
- Curious
- Communication
- Continuous learning
- Investigative – "Thinker"

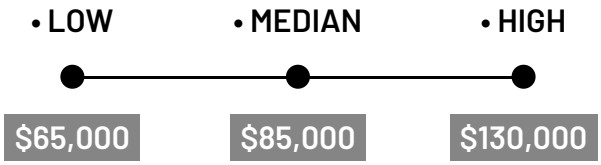
CAREER PROGRESSION

In this role, you may have the opportunity to progress to other positions. Career progression opportunities include:

- Chief Engineering Officer
- Chief Executive Officer
- Chief Financial Officer
- Chief Operating Officer

SALARY EXPECTATION

The expected salary for a Data Analyst can vary across different areas of manufacturing and may vary as you become more experienced.



RELATED INDUSTRIES

▸ Aerospace and Defence ▸ Chemicals, Hydrocarbons and Refining ▸ Food and Beverage ▸ Furniture and Other Products ▸ General Manufacturing and Engineering ▸ Meat and Seafood Processing ▸ Pharmaceutical and Medical Technology ▸ Polymers, Plastic and Rubber ▸ Printing and Graphic arts ▸ Pulp, Paper and Packaging ▸ Renewables ▸ Textiles, Clothing and Footwear ▸ Timber and Wood ▸ Transport Equipment and Machinery

RECOMMENDED SCHOOL SUBJECTS

- Chemistry
- Design
- Mathematical Methods
- Specialist Mathematics

CORE SCHOOL SUBJECTS

- General Mathematics
- Essential English
- Information and Communication Technology
- Digital Solutions

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JOB OVERVIEW

Data Analysts play a crucial role in today's data-driven business landscape. They collect, process, and perform statistical analyses of data, transforming complex datasets into clear, actionable insights that guide strategic business decisions. Data Analysts help organisations optimise their operations, understand market trends, and predict future outcomes.

In the manufacturing industry, Data Analysts are instrumental in driving efficiency and quality improvements. They analyse production data to identify bottlenecks, optimise supply chain operations, and predict equipment maintenance needs. By leveraging techniques such as statistical process control and predictive analytics, Data Analysts help manufacturers reduce downtime, improve product quality, and streamline inventory management. Their insights contribute to lean manufacturing practices, enabling data-driven decision-making on the factory floor and throughout the supply chain.

In their day-to-day work, Data Analysts might be found cleaning and validating data, creating data visualisations, developing predictive models, or presenting findings to stakeholders. They use a variety of tools and technologies, including statistical software packages, database systems, and data visualisation tools.

The role of a Data Analyst requires a unique combination of technical skills, analytical thinking, and communication abilities. They must be proficient in data manipulation and statistical analysis, have a keen eye for patterns and trends, and be able to translate complex findings into clear, understandable reports for non-technical audiences.

WHAT WILL YOU DO?

Your role may include duties as follows:

1. Collect and clean large datasets from various sources
2. Perform statistical analyses to identify trends and patterns
3. Create data visualisations and dashboards to communicate findings
4. Develop and maintain databases and data systems
5. Collaborate with teams to identify business questions and provide data-driven solutions

HOW TO BECOME A DATA ANALYST

Becoming a Data Analyst typically requires a strong educational background in a quantitative field and proficiency in data analysis tools and techniques. Here are the steps to become a Data Analyst:

1. Earn a bachelor's degree in statistics, mathematics, computer science, or a related field
2. Gain proficiency in data analysis tools such as SQL, Python, R, and Excel
3. Develop skills in data visualisation using tools like Tableau or Power BI
4. Build a portfolio of data analysis projects to showcase your skills
5. Consider pursuing certifications such as Certified Analytics Professional (CAP) or Microsoft Certified: Data Analyst Associate

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VOCATIONAL EDUCATION & TRAINING

While many Data Analyst positions require a university degree, there are vocational education and training options that can provide valuable skills and knowledge in data analysis related to manufacturing:

- Diploma of Applied Technologies (MEM50822)
- Diploma of Competitive Systems and Practices (MSS50322)

These courses can provide hands-on experience with data analysis tools and techniques, which can be valuable for those entering the field or looking to enhance their skills in data analysis.

UNIVERSITY & HIGHER EDUCATION

A university degree is typically required for Data Analyst positions, with most employers preferring candidates with a bachelor's degree in statistics, mathematics, computer science, or a related field. These programs provide a strong foundation in quantitative analysis, programming, and data management.

For those looking to advance their careers or specialise in specific areas of data analysis, postgraduate degrees such as a Master of Data Science or a Master of Business Analytics can be beneficial. These advanced programs often involve in-depth study of advanced statistical techniques, machine learning, and big data technologies.

Many universities also offer specialised courses or certifications in data analysis and business intelligence, which can be valuable for professionals looking to gain expertise in this rapidly evolving field. These programs often cover topics such as data mining, predictive analytics, and data-driven decision making.

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