



Keywords



Data Analytics



Data Modelling



Insights



R, Python, SQL, Hadoop,
Teradata



Analysis



Risk Modelling

Data Analyst

Data Analysts lead the design, analysis and delivery of relevant, trusted and objective statistics and data-related insights

By using a variety of methodologies and programming languages, Data Analysts analyse data to discover relationships between datasets. They transform data to derive insights and develop business rules or statistical models to quantify risks, behaviours and/or benefits.

Guided by their judgement, domain knowledge and shared understanding of the business problem with stakeholders, Data Analysts work with other data professionals to manage the collection, description and preparation of data for various purposes, especially descriptive and diagnostic analytics. They then tell the story behind the data in an engaging and meaningful way for technical and non-technical audiences using reports, visualisations, or other communication methods.

Data Analysts understand and apply appropriate data governance controls and frameworks to ensure compliance with relevant legislation, regulation and policy. They document their analytic solutions, use version control software, and automation tools to produce repeatable and re-usable insights.

They may also assist in designing and testing applications, systems, and other data collection methods to ensure the data specification and solutions are fit for purpose and assure data quality.



Key Technologies

Enterprise Data
Platforms

MS Office Suite

Programming and
scripting languages

Data modelling
applications

Visualisation Tools
(Cognos, Power BI, etc)

Specialisation Roles

Risk and Behaviour
Modelling Analyst

Visual Analytics
Specialist

Technical Analyst

Data Architect

Key Relationships



Clients /
Users



IT
Professionals



Data
Professionals

Data Analyst



Level 1 | Foundation

- Transform data from known sources and organise data into a format that can be analysed, guided by simple frameworks and patterns for use in analysis
- Use basic functionalities of common applications and platforms to generate basic analysis outputs. Awareness of the methodology being used in their work
- Use data modelling methods to organise data objects such as predictive modelling, clustering and association rules
- Utilise existing data analysis tools and techniques to interpret data, find patterns or trends
- Contribute to the design, build, test and maintenance of data solutions, systems and databases to solve data related problems, using known design patterns, programming languages and tools
- Communicate findings and insights from basic data, using-reports and dashboards to range of stakeholders
- Diagnose and troubleshoot business rules to identify organisational risk and/or client behaviour using familiar methodologies or patterns
- Aware of data governance and data quality frameworks.
- Support contribution to technical documentation

APS DCF

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1	COM
1	OUT
1	RSC

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Level 2 | Intermediate

- Identify and transform data from multiple sources, guided by existing frameworks and patterns, into a new dataset for use in analysis, risk or behaviour modelling, self-service applications, or other use cases
- Use basic functionalities of common applications and platforms to generate analysis outputs, understand the analytical and/or modelling methodology being used and build repeatable solutions
- Use best practice data modelling methods to organise data objects (for example, predictive modelling, advanced clustering, text mining, social network analysis and association rules)
- Utilise suitable data analysis tools and techniques to interpret data, reduce bias, find patterns or trends, validate unexpected results and solve problems for uncomplicated datasets
- Design, build, test and maintain data solutions, systems and databases to solve data related problems, using known design patterns (including security), and choosing appropriate programming languages and tools
- Communicate findings and insights from data to technical and non-technical stakeholders using-reports and dashboards that may require creation or modification using visualisation techniques.
- Develop, fit, diagnose, and troubleshoot business rules or statistical models to identify organisational risk and/or client behaviour using familiar methodologies or patterns
- Contribute to technical documentation and use appropriate templates/version control to ensure repeatable, reproducible results by developing data definitions, dictionaries, metadata and data quality metrics
- Collaborate with other data professionals and business stakeholders to support process improvements and apply data governance and data quality frameworks
- Coach and train less experienced analysts

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Level 3 | Advanced

- Identify and transform data from multiple sources using novel techniques or emerging patterns into new datasets for use in analysis, risk or behaviour modelling, self-service applications, or other use cases
- Use full range of functionalities of common applications and platforms, including automation and scheduling to generate analysis outputs, understand the analytical and/or modelling methodology being used and build complex repeatable solutions
- Use a wide range of advanced data modelling methods to organise complex data objects (for example, predictive modelling, advanced clustering, text mining, social network analysis and association rules.) Perform advanced data analysis techniques to interpret data, reduce bias, find patterns or trends, validate unexpected results and solve problems for complex or sensitive datasets
- Design, build, test and maintain data solutions, systems and databases to solve data related problems, inclusive of translating complex or novel business requirements in technical specifications, using or establishing design patterns (including security), and choosing appropriate programming languages and tools
- Generate high value actionable insights from highly complex data and communicate findings to technical and non-technical stakeholders using highly complex reports, dashboards and other visualisation techniques.
- Develop, fit, diagnose, and troubleshoot business rules or statistical models to identify organisational risk and/or complex client behaviour using unfamiliar methodologies or new patterns
- Influence improvements to technical documentation and use appropriate templates/version control to ensure repeatable, reproducible results by developing data definitions, dictionaries, metadata and data quality metrics.
- Collaborate with other data professionals, business stakeholders, and IT specialists to drive system and process changes to realise strategic goals or deliver significant operational outcomes
- Coach and train other analysts, and contribute at whole of agency or APS level to developing the Data Analyst capability

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