

Job title	Senior Data Scientist		
Job family	Data & Analytics	Band	D

Job purpose

Individuals within the Data Scientist role are responsible for modelling complex problems, discovering insights and identifying opportunities through the use of statistical, algorithmic, mining and visualisation techniques. In addition to advanced analytic skills, this role is also proficient at integrating and preparing large, varied datasets, architecting specialised database and computing environments, and communicating results.

These professionals will need a combination of business focus, strong analytical and problem-solving skills, and programming knowledge to be able to quickly cycle hypothesis through the discovery phase of the project. Excellent written and communications skills to report back the findings in a clear, structured manner are required.

As a Senior Data Scientist you will work as part of a multi-disciplinary team to ensure that the BBC's data management, analytics and data science services are put into effect and matured in the area that you support to transform business capabilities and enable the next generation of Broadcast and Digital services.

You will be a specialist in your field with expertise in at least one technology, software, infrastructure, application, digital or broadcast and production domain. You will provide knowledge and guidance to multiple stakeholders. You will have an appreciation of how the complete range of data science specialisms impact your area and you will use this knowledge to ensure you deliver data-informed change, improve decision making and creative reuse of assets across the area that you support.

Key responsibilities and accountabilities

- Designs experiments, test hypotheses, and build models
- Conducts advanced data analysis and complex designs algorithm
- Works with the data engineer to ensure that the information used is in compliance with the regulatory and security policies in place
- Qualifies where information can be stored or what information, external to the organization, may be used in support of the use case
- Identifies and analyses patterns in the volume of data supporting the initiative, the type of data (e.g., images, audio, video, text, clickstream etc.) and the speed or sudden variations in data collection
- Works in partnership with the data engineer to ensure that the information used follows the compliance, access management and control policies, and that it meets the qualification and assurance requirements
- Partners with the data engineers to define the data quality expectation in the context of the specific use case
- Recommends ongoing improvements to methods and algorithms that lead to findings, including new information

- Presents and depicts the reasons for their findings in easy to understand terms for the business
- Reports results that contradict common belief, if needed
- Communicates and works with business subject matter experts
- Educates the organisation both from technology and the business perspectives on new approaches such as testing hypotheses and statistical validation of results. Helps the organisation understand the principles and the math behind the process to drive organisational buy-in
- Provides business metrics for the overall project to show improvements (contribution to the improvement should be monitored initially and over multiple iterations)
- Demonstrates the following scientist qualities: clarity, accuracy, precision, relevance, depth, breadth, logic, significance, and fairness
- Provides on-going tracking and monitoring of performance of decision systems and statistical models

Knowledge, skills, training and experience

Essential

- Bachelor degree in mathematics, statistics or computer science or related field; Master degree preferred OR similar knowledge gained through relevant experience.
- Broad relevant quantitative and qualitative research and analytics experience.
- Knowledge of statistical techniques.
- The ability to come up with solutions to loosely defined business problems by using pattern detection over potentially large datasets.
- Strong programming skills (such as Hadoop MapReduce or other big data frameworks, Java) and statistical modeling (like Python or R).
- Experience using machine learning algorithms.
- Proficiency in the use of statistical packages.
- Proficiency in statistical analysis, quantitative analytics, forecasting/predictive analytics, multivariate testing, and optimization algorithms.
- Good communication and interpersonal skills.
- Knowledge of one or more business/functional areas.

Desirable

- Broadcast, production, start-up or media experience
- A mix of public sector and commercial experience

Job impact

Decision making

- *Provides a leadership role in the development and implementation of data science capability and standards; promoting best practice within the area of business*
- *Assessing for value-for-money options for business as usual and emerging technologies*

- *Assessing the appropriate mix of build/buy options within the area of business taking into account strategic direction, business flexibility and emerging disruptive tech*

Scope

- *This is a leadership role providing technical leadership across: project teams; technical delivery resources; an emerging matrix organisation*
- *Strategic dimensions: covering transformation mid and long-term (2-5 years)*
- *People Management: 0+ direct reports. Develops, coaches, motivates, energises and inspires people who do not report to them*
- *Oversee the quality of the work performed by members of any project / supplier teams ensure it delivers measurable business benefits and maintains integrity with the architecture and technology strategy*

Other information

For Reward team use only

Job Code

Definition:

Content / Content Support / Support

This job description is a written statement of the essential characteristics of the job, with its principal accountabilities, incorporating a note of the skills, knowledge and experience required for a satisfactory level of performance. This is not intended to be a complete, detailed account of all aspects of the duties involved.