

<b>Job title</b>	Data Engineer		
<b>Job family</b>	Data & Analytics	<b>Band</b>	C

**Role specific to the opportunity**

The BBC World Service delivers News in 42 languages across the world. These are brought over different channels, including linear like TV or radio and digital channels including website and a selection of social media platforms. The various channels provide News in written, audio and video formats. All of this combined results in a complex system of News and the way it's delivered across the countries.

This opportunity lies in the World Service Audiences Insight team, where you'll be joining an international team of researchers, data analysts and data scientists. The team uses qualitative, quantitative and data science methodologies to understand and report on its audiences and markets around the world. Depending on the nature of business question being answered, projects can use multiple methodologies across qualitative, quantitative and data science methods.

The team carries out audience and provide constructive feedback to editorial teams and recommends strategies to the business.

This role requires

- Experience in data engineering patterns and constructs e.g. Data Warehouse, Data Lake, ETL, MapReduce
- Database experience for both structured and unstructured databases
- Cloud experience - preferably AWS and setup and management of data storage solutions.
- Experience in automation as well as finding and integrating available data sources, including experience in data quality assessment and validation
- Some experience with relational database internals, including both query processing and query planning, or other data processing infrastructure
- Some experience in programming languages - preferably Python
- Some experience in machine learning
- Flexibility and ability to work in parallel on different projects
- Excellent time management and organisation skills
- A good balance of working in a team and autonomously
- Analytical thinking and a solution-driven mind

The ideal candidate

- Will be able to translate a non-technical requirements into technical solutions
- Will be able to manage a project through the whole project lifecycle
- Is comfortable with communicating results and outcomes to stakeholders in non technical language

**Job purpose**

The BBC aims to stimulate and delight audiences across the UK with distinctive, creative content. To underpin this aim, BBC is entering a new charter period of significant and exciting change, developing new capabilities in order to define a BBC fit for the next generation.

**OUR MISSION:** To inform, educate and entertain all audiences, to deliver our public purposes

OUR AIM: To reinvent the BBC for a new generation

We'll do this through... OUR AMBITIONS: Making sure everyone gets value from the BBC, world-class creativity, global reach, financial stability and making the BBC an even greater place to work.

Data Engineering team are made up of individuals with domain knowledge. They are responsible for designing the data model, building and maintaining the data pipelines and aiding large scale and high resilience infrastructure.

These teams strive to deliver quality with an eye on value for money and exceptionally high ethical and technical standards.

Data Engineers are a key members of a multi-disciplinary agile team working alongside analysts, data scientists and software engineers to deliver services and applications for the next generation of BBC products.

Data Engineers will be critical to driving positive change for users and the business, and be able to embrace it in a spirit of collaboration and positive attitude.

As a team member you will be expected to:

- share knowledge and best practises
- recognise and embrace change and operate in adaptable way
- recognise when help is needed and seeking assistance from others

## Key responsibilities and accountabilities

- Helps build Big Data and batch/real-time analytical solutions
- Aids in the translation of stakeholder requirements into technical approaches
- Finds innovative solutions to acquiring or enriching data used to build machine learning algorithms
- Works on a project as a team member helping design and develop software applications, testing, and building automation tools
- Codes, tests, and documents new or modified data systems with the help of other team members
- Helps conduct logical and physical database design, helps design key and indexing schemes and helps design partitioning
- Helps develop, test, implement, and maintain database management applications, constructs and implements operational data stores and data marts
- Participates in building and testing business continuity & disaster recovery procedures per requirements
- Collaborates with other disciplines to create value with data across the wider organisation

## Knowledge, skills, training and experience

### Essential

- Typically an advanced degree in computer science, computer engineering, other technical discipline, or equivalent work experience.
- Software development or database experience.
- Familiarity with agile or other rapid application development methods and experience with object-oriented design, coding and testing patterns
- Some experience with object-oriented coding with a variety of languages
- Some experience with relational database internals, including both query processing and query planning, or other data processing infrastructure

- Some knowledge of key data structures and algorithms and a basic knowledge of machine learning
  - Knowledge of data modelling and understanding of different data structures and their benefits and limitations under particular use cases.
  - Some familiarity with monitoring, backup, and disaster recovery of data systems and knowledge in different programming or scripting languages.
- Desirable**
- Contributing to the development of area of specialism or industry domain
  - Broadcast, production, start-up or media experience
  - A mix of public sector and commercial experience
  - Participation in published documents within your area of specialism
  - Successful academic background in your specialist discipline

<b>Job impact</b>
<p>Decision making (2)</p> <ul style="list-style-type: none"> <li>• Provides technical expertise in the development and implementation of data science capability and standards; promoting best practice within the area of business</li> <li>• Develops novel data engineering approaches to vaguely defined business problems</li> <li>• Assessing options for business as usual and emerging technologies</li> <li>• Assessing the appropriate mix of build/buy options within the area of business taking into account strategic direction, business flexibility and emerging disruptive tech</li> </ul> <p>Scope (Domain Expertise, 5, 4)</p> <ul style="list-style-type: none"> <li>• This is a junior level role</li> <li>• People Management: no direct reports.</li> <li>• Domain expertise: Strong domain knowledge and ability to explain domain to others in simple terms</li> <li>• Influencing: Influences direction of their deliverables with evidence</li> <li>• Leadership: Ownership of activities and tasks within a project and responsibility for the outcomes.</li> </ul>

<b>Other information</b>	
<b>For Reward team use only</b>	
Job Code	
Definition:	Content 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.*

**Appendix**

There may be sub-sets of the generic job described above which require additional technical skills. This appendix to the generic job description can be developed to cover such situations.

**JOB DESCRIPTION**



<b>Division</b>	
<b>Reports to (title)</b>	<b>Principal or Lead Data Engineer</b>
<b>Location base</b>	

<b>Organisation structure</b>	

<b>Additional job specific responsibilities and accountabilities_</b>

<b>Approval</b>	
<b>Manager</b>	Name and job title
<b>HR Business Partner</b>	Name
<b>Date</b>	