

City of Edinburgh Council job description

Post title	Data Engineer
Directorate	Chief Executive
Service	Strategy, Data and Performance Team
Responsible To	Lead Data Engineer
Number of post holders	1

Purpose of job

The Data Engineer will be responsible for designing, building, and maintaining our data infrastructure, ensuring the efficient and reliable definition, processing, storage, and analysis of large datasets for specific projects.

The Postholder work with the Lead Data Engineer to develop and, manage our Data Analytics Platform (Microsoft Fabric) and will lead cross-functional project teams across the Council to deliver robust data projects that support the delivery of a roadmap of projects and data products in line with the Council's strategic priorities and outcomes.

They will have the expertise to ensure the delivery of high-quality data products that meet the needs of our stakeholders and enable effective decision-making

The what - major tasks and job activities

- Lead on projects to the design and implement scalable, efficient, and robust data pipelines to extract, transform, and load (ETL) data from various sources into and the Microsoft Fabric Platform
- Lead, engage and collaborate with cross-functional teams, to understand their data requirements and translate them into technical solutions
- Lead the development and maintenance of data models, schemas, and structures that optimize data storage and retrieval for analytics and reporting purposes.
- Working with the Lead Data Engineer , our Senior Information analysts and key service stakeholders to identify ways to improve data reliability, efficiency and quality
- Work across the Council to extract, clean, combine and store data in a way that allows it to be exploited and as an asset to help service delivery and decision making.
- Uphold data governance policies and standards, ensuring compliance with data privacy and security regulations

- Lead on documenting data engineering processes, workflows, and technical specifications to facilitate knowledge sharing and ensure reproducibility of analyses.

The how - knowledge and skills, creativity and innovation, contacts and relationships, decision making

- Degree in Computer Science, Information Systems, or a related field. or a combination of education and relevant experience
- Experience demonstrating proficiency as a Data Engineer or similar role, delivering data products and services such as data modelling, data schemas, warehouses and/or lakes.
- Communicating between the technical and non-technical: Communication across organisational, technical and political boundaries. Making complex and technical information and language simple and accessible for non-technical audiences
- Experience demonstrating proficiency working with multiple, complex data sets
- Experience demonstrating proficiency and able to give examples of successful, hands-on implementation of ETL processes and delivery of data pipelines into various data management architecture
- Demonstrating detailed skills in cleaning, integrating and scaling data sets and pipelines, and fixing problems in data sets
- Proficiency in programming languages such as Python, Java, or Scala, used for scripting and automation
- Proficiency in using query languages such as SQL, Hive, R, with any ability to work with SQL and NoSQL databases
- Good working knowledge with data governance principles, data privacy regulations (e.g., GDPR, CCPA), and data security best practices.
- Experience with modern data analytics platforms (e.g. Microsoft Fabric) and data visualization tools (e.g., Power BI) for reporting and analytics purposes.
- Builds and maintains excellent working relationships with a wide range of people, gaining credibility at all levels, including partners and suppliers.

Environment - work demands, physical demands, working conditions, work context

- Although the postholder may be exposed to some physical demands these will be predominantly within the range of normal office based activities.
- Although the postholder may be exposed to some adverse working conditions these will be predominantly within the range of normal office based activities.
- Although the postholder will have some requirement to take care in relation to the working environment, work activities and dealing with

people this will not be more than the normal required of a council employee.

Supervision and management of people

- The postholder will often have project management responsibility over other staff as appropriate. Particular projects, working groups and other tasks are likely to require the post holder to take responsibility for staff from other Council areas and/or external agencies, and to chair and manage project teams.
- In this role, the post is expected to effectively and diplomatically advise Corporate Leadership Team, senior managers, managers and staff across the Council on key actions required to implement continuous improvement and key business decisions.
- The postholder should be visible, approachable and capable of building the trust necessary to secure the commitment of staff to change.

Resources the job holder will be responsible for

- Support the management and monitoring of external consultants and contractors aligned to project delivery.
- The postholder will have a shared responsibility with the Data and Performance team Fabric Administrators for the security and maintenance of the Microsoft Fabric Data Platform.
- Responsible for creating and maintaining all data pipelines/data ingestion into Fabric ensuring that it is available, secure and fit for purpose

Additional information - health and safety (DO NOT AMEND THIS SECTION)

Protecting the health and safety and welfare of our employees, and our third parties including members of the public, contractors, service users and pupils, is the starting point for a forward-thinking Council.

All employees' responsibilities:

1. Taking care of their own health and safety and welfare, and that of others who may be affected by their actions or omissions.
2. Co-operating with management and following instructions, safe systems and procedures.
3. Reporting any hazards, damage or defects immediately to their line manager;
4. Reporting any personal injury and work-related ill health, and accident or incident (including 'near misses') immediately to their line manager, and assist with any subsequent investigation, including co-operating fully with the provision of witness statements and any other evidence that may be required.

Line managers have additional responsibilities for ensuring all health and safety risks under their management are identified, assessed and controlled, with specialist input from H&S Advisers and others including Occupational Health where required. Where the risks cannot be adequately controlled the activity should not proceed.

Additional information can be found in the [Council Health and Safety Policy](#).