

# Data Engineer

Service	Reporting to	Location	Grade
Digital Data and Technology	Head of AI & Data	Swinton Civic Centre / hybrid	4A

## About the role

### Data at the heart of what we do at Salford City Council

Salford City Council is building modern, cloud-based data foundations to support better decision-making, smarter services and the responsible use of AI. As part of the Digital, Data and Technology service, this role sits within the Data, Analytics and Insight function and plays a critical part in delivering the council's Data and AI Blueprints.

As a Data Engineer, you will design, build and operate scalable, secure and reliable data platforms that enable the ingestion, storage, processing and sharing of data across the organisation. Working primarily in cloud environments, you will develop data lakehouse-style solutions that support both structured and unstructured data, making data accessible for analytics, reporting, operational systems and AI use cases.

You will take ownership of the end-to-end data lifecycle, from source system integration and data ingestion through transformation, storage, quality assurance and ongoing optimisation. This includes designing robust data pipelines, applying engineering best practices, and ensuring data solutions are resilient, well-documented and aligned to agreed architectural standards.

The role requires close collaboration with analytics, AI, digital and service teams. You will help translate service needs into sustainable data engineering solutions, apply appropriate data architecture patterns, and ensure that data is managed ethically, securely and in line with information governance requirements. You will also play a key role in improving data maturity across the council by enabling reuse, automation and consistent approaches to data engineering.

## Key outcomes

- **Modern Data Platforms & Architecture**
  - Design, build and maintain cloud-based data platforms using modern lakehouse patterns.
  - Apply appropriate data architecture patterns to support scalability, interoperability and long-term sustainability.
  - Shape and evolve the council's data infrastructure, including data ingestion, storage, processing and integration layers.

- **Data Lifecycle Management & Pipelines**
  - Own the end-to-end data lifecycle, ensuring data is reliably ingested, transformed, stored, versioned and retained.
  - Build and maintain automated, reusable and well-governed data pipelines.
  - Establish standards for data quality, validation, lineage and metadata management.
  - Improve the flow of data between systems, reducing duplication and manual effort.
  
- **Engineering Quality, Reliability & Automation**
  - Ensure data solutions are robust, secure, performant and cost-effective.
  - Embed automation across data engineering workflows, including testing, deployment and monitoring.
  - Apply engineering best practices to ensure maintainable, well-documented and observable data pipelines.
  - Identify and address data reliability issues proactively, improving trust in data across the organisation.
  
- **Enablement & Collaboration**
  - Work closely with analytics, AI and service teams to enable downstream use of data for insight, operational reporting and machine learning.
  - Support self-service access to well-governed data products where appropriate.
  - Enable reuse of datasets, pipelines and patterns across multiple services and domains.
  - Share knowledge and best practice, contributing to improved data engineering capability across the council.
  
- **Governance, Ethics & Compliance**
  - Ensure data platforms and pipelines comply with information governance, security and data protection requirements.
  - Embed ethical data principles into data engineering design and delivery.
  - Support auditability, transparency and accountability across the data estate.
  - Maximise the effective and responsible use of data to improve service outcomes and reduce risk.

## What we need from you

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- **Data Engineering & Cloud Expertise**
  - Proven experience designing, building and operating modern data engineering solutions.
  - Strong experience with cloud-based data platforms, ideally Microsoft Fabric, with knowledge of Oracle and/or AWS equivalents desirable.

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- Experience implementing lakehouse-style architectures supporting structured and unstructured data.
  - Strong skills in building and maintaining data pipelines using modern data engineering tools and frameworks.
  - Proficiency in relevant programming languages and query technologies (e.g. SQL, Python).
- **Data Lifecycle, Quality & Architectural Awareness**
    - Strong understanding of the full data lifecycle, from ingestion to consumption and retention.
    - Experience implementing data quality, validation, lineage and metadata management practices.
    - Working knowledge of data architecture principles and the ability to apply appropriate patterns to real-world problems.
    - Ability to design data solutions that balance flexibility, performance, cost and governance.
- **Ways of Working & Approach**
    - Strong analytical and problem-solving skills, with the ability to diagnose and resolve data issues.
    - Ability to communicate technical concepts clearly to both technical and non-technical stakeholders.
    - Enthusiasm for improving how data is managed and used for public benefit.
- **Qualifications**
    - Degree, apprenticeship, or equivalent experience in Computer Science, Information Systems, or related discipline.
    - Cloud and data platforms certifications (Azure, AWS, Oracle Cloud Infrastructure) are desirable.
    - Evidence of continuous learning, either through formal study, online training, or project work.

To model and demonstrate our values and behaviours.

## What we can offer you

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Your ongoing professional development and success in your role is important to us, and that is why we provide a variety of learning and development opportunities. Within the sections below you will find development options tailored to you which will enable you to further develop your existing skills and learn new ones at a pace that suits you best. If you are joining us now, your development will form part of ongoing discussions with your manager. If you are an existing employee, you should use your Personal Development Reviews to discuss your development with your manager and create your development journey. It's important you also take full advantage of any informal learning available to you during the course of your work.

### Online learning

Develop your knowledge across a wide range of areas through our Me-Learning platform, with over 200 free courses to choose from. To have the best possible start and comply with current legislation, you must complete the following modules: Welcome to Salford, Health and Safety in the Office, GDPR, Equality Essentials, and Safeguarding Children and Adults. You may also benefit from a variety of courses in categories such as Business Skills, IT and Project Management which are available to learn at your own convenience and pace.

### Professional Development

Gain role specific skills and time to learn through a wide range of development opportunities. Learn whilst working and get support towards your qualification through an apprenticeship standard. Access professional development ranging from entry level to master's type qualifications, including achieving a role appropriate qualification. Details can be found on [the Institute of apprenticeships](#) website.

## A digital organisation

### Developing your digital skills

Our ambition is to provide our workforce with the right level of digital capabilities needed to be successful. Whatever your current digital abilities are, we can provide development ranging from essential workplace skills to specialist workplace skills. These will be delivered through our Digital Skills Academy using both self-directed and guided learning opportunities to enable you to develop. Additionally, you can access free online courses through the [iDea website](#).

### Sharing your digital skills

Our goal is to support you to share your digital knowledge with other people. Our Digital Eagles programme has been designed to cover basic digital skills and build your confidence to assist others. By the end of this programme you will join hundreds of staff members who already are digital eagles, and be able to help colleagues, customers, residents, or people in your personal life with all things digital.

## Our organisation's values

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**We have four values: Pride, Passion, People, Personal responsibility.**

[Our four values](#) are central to the way we communicate about the council and the way in which we behave with colleagues, customers, and partners - so that we live and breathe our values each day.

## Our values



**Pride**

**Passion**

**People**

**Personal responsibility**

## Application guidance

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We are a values-based organisation so reflecting our values or a values-based approach in your evidence will support your application.

The different sections of this role profile are there to give you an understanding of the purpose of the role. The 'what we need from you' section outlines the minimum criteria you will need to meet within your application.

### Role details

Completed by:

Date:

Job code:

Job score:

Date of evaluation:

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