JOB DESCRIPTION

Job Title	Senior Data Engineer		
Directorate	Strategy Performance & Communications		
Reporting to	Data Engineering & Science Lead		
Grade	8		
Evaluation ref:	RP113	Job Family ref:	

Role purpose

The Senior Data Engineer at Somerset Council will play a pivotal role in the Strategy Performance & Communications directorate. Reporting to the Data Engineering & Science Lead, this role is responsible for designing, building, and maintaining robust data flows to connect operational systems, data for analytics, and business intelligence systems and architectures that support the council's strategic initiatives.

The post holder will work closely with data scientists, analysts, and other stakeholders to ensure data integrity, accessibility, and security. This role involves recognising opportunities to reuse existing data flows, leading the build of data streaming systems, and optimising code to ensure processes perform optimally. The post holder will also lead work on database management, ensuring data solutions are resilient, scalable, and future proof. The post holder will undertake data profiling and source system analysis, present clear insights to colleagues, and design, build and test complex data products.

Additionally, the role includes maintaining and updating data models, managing metadata repositories, and resolving problems in databases, data processes and data products. The post holder will lead the development of data solutions that drive informed decision-making and enhance the council's performance and communication strategies. The ideal candidate will have a strong background in data engineering, a keen eye for detail, and the ability to translate complex data requirements into scalable solutions. They will also be expected to mentor junior team members and promote best practices in data management and engineering.

Accountabilities

- Design and lead the implementation of data flows to connect operational systems, data for analytics and BI systems.
- Lead the build of data streaming systems and on database management.
- Collaborate with data scientists and analysts to understand data needs and deliver solutions.
- Ensure data integrity, quality, and security across all data platforms.
- Lead the implementation of data governance and best practices.
- Optimise code and data workflows for performance and efficiency.
- Undertake data profiling and source system analysis.
- Design, build and test complex data products.
- Produce, maintain and update relevant data models.
- Develop and maintain documentation for data processes and systems.

- Troubleshoot and resolve data-related issues responding to problems in databases, data processes, and data products. Initiate actions, monitor services, and identify trends to resolve problems.
- Select and implement appropriate technologies for data solutions and stay updated with the latest advancements and technologies in data engineering.
- Participate in strategic planning and contribute to the Council's data strategy.
- Present clear insights to colleagues to support the end use of data. Communicating effectively with technical and non-technical stakeholders.

Knowledge / Experience / Skills

	Essential	Desirable
Knowledge		
In-depth understanding of meta data management practises and data warehousing concepts and best practices.	x	
Knowledge of organisational standards for data solutions, data governance and compliance standards.	x	
Familiarity with cloud-based data platforms such as AWS, Azure, or Google Cloud.	x	
Understanding of big data technologies like Hadoop, Spark, or Kafka.		x
Knowledge of data visualisation tools like Tableau or Power BI.		x
Awareness of emerging trends in data tools and analysis techniques including machine learning and AI concepts.		x
Experience		
Proven experience in data engineering or a related field.	x	
Experience with SQL and NoSQL databases.	x	
Experience in designing and implementing ETL processes.	x	
Experience with data integration and API development.	x	
Experience in database management and building data streaming systems.		x
Experience with agile development methodologies.		x
Qualifications / Registrations / Certifications		
Degree in Computer Science, Information Technology, or demonstrate equivalent qualifications through relevant professional experience.	x	

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Professional certifications in data engineering or related disciplines.		x
Advanced degree (Master's or PhD) in a relevant field.		x
Certification in cloud platforms such as AWS Certified Data Analytics or Azure Data Engineer.		x
Data modelling and metadata management		x
Training in data governance and compliance.		x
Continuous professional development in data engineering.		x
Skills		
Strong programming skills, coding, and scripting in languages such as Python, Java, or Scala.	x	
Excellent problem-solving and analytical skills.	x	
Ability to work collaboratively in a team environment.	x	
Strong communication skills, both written and verbal - Ability translate technical concepts into non-technical language.	x	
Proficiency in data modelling and database design.		x
Ability to manage multiple projects and priorities.		x

Working Conditions

This role involves working within a dynamic and supportive local authority environment. Candidates should be prepared for the following conditions:

- **Work Hours:** Standard working hours are 37, with occasional requirements for evening or weekend work to meet project deadlines or attend community events.
- **Location:** The primary work location is County Hall, with opportunities for remote work as per organisational policies.
- **Travel:** Some travel within the local area may be required for meetings, site visits, and community engagement activities.
- **Work Environment:** The role involves working both independently and as part of a team, with access to modern office facilities and resources.
- **Health and Safety:** Adherence to all health and safety regulations is mandatory, ensuring a safe working environment for all employees.

Dimensions of the role

Working Arrangements

Somerset Council's dynamic Working Strategy will be applied to this position.

Corporate Accountabilities
• Ensure compliance with all relevant legislation, organisational policy, and professional codes of conduct to uphold standards of best practise. • Deliver the aims of the council's equality, diversity and inclusion policies; health, safety and wellbeing of self and others; and Organisational values in everything you do, ensuring team members are also aware of their responsibilities and maintaining their understanding that Equality and Diversity practice covers both interaction with staff, service users and communities and includes challenging discrimination and promoting equality of opportunity for all.

Date: 21/10/2024