



Job Summary Overview

Job title	Senior Data Engineer
Career family	Organisational Enablers
Professional pathway	Data
Career family level	Technical / Professional Expert or Specialist (Tier 6)
Grade	14
Reports to	Data Architect/ Spatial Data and Systems Team Leader
Financial responsibility	N/A
Supervisory responsibility	None
Reference number	ROP-DAT-2025-6A

Job Summary

The Senior Data Engineer is a hands-on technical lead responsible for designing and implementing robust data solutions that connect operational systems with analytics and business intelligence platforms. Your role may be in either the Data Architecture and Engineering team - focused on design, build and maintenance of our data foundations, including data architecture, infrastructure, engineering, and governance; or focused on specifically spatial data and systems within the within the Spatial Data and Systems team – focussed on spatial data and technology and bridging IT support functions, technical data management, business intelligence, mapping, location analytics, and spatial data applications and products by managing geospatial technology as a product.

The roles support Oxfordshire County Council's ambition to be data-driven by building scalable Extraction, Transformation, and Load (ETL) pipelines, data models, and warehousing solutions. The postholders will also provide technical leadership, mentor colleagues, and ensure data quality and consistency across systems, while engaging with stakeholders to translate business needs into effective data products. Engaging with senior managers to advise and support utilising data effectively and consistently across OCC.

You'll be working with varied and interesting data across all areas of the council's work – with these data originating from a wide range of sources, and the outputs you create will lead to direct operational and strategic impacts.

This is a bullet point list of the main duties or tasks that the post holder will be expected to undertake.



- To support OCC in being data driven by ensuring robust and reliable data is available for insight generation and management information/business intelligence processes.
- Designing and implementing ETL processes (e.g., Creating ETL scripts to transform and load data)
- To design, model and build solutions for data warehousing, data migration and data reporting
- Design, build, and test data products based on feeds from multiple systems, using a range of different storage technologies and access methods. Create repeatable and reusable products.
- Select and implement technologies to deliver resilient, scalable, and future-proofed data solutions.
- Produce data models and understand where to use different types of data models. Ensure that data models are consistent across the organization.
- Lead work on database management to ensure data integrity and performance.
- Undertake data profiling and source system analysis to present clear insights.
- Communicate effectively with both technical and non-technical stakeholders.
- Actively promote the involvement and engagement of service users in the delivery and improvement of services
- Design and improve metadata repositories and advise team members on metadata management.
- Design, code, test, and document moderate-to-complex programs and scripts.
- Ensuring data quality and consistency across various sources and providing technical solutions for the investigation and reporting on data quality and develop processes for improving and maintaining data quality
- Leading partnership and active collaboration with other Data and Analytics teams across the Data Office, service area spokes (where relevant) and with service area clients.
- Provide leadership, guidance and technical knowledge and skills to the directorates on all aspects of data management, sharing and reporting.
- Provide clear documentation, expertise and guidance to projects and developments where information, data and business applications are key deliverables

Specific requirements	Essential <i>Mark with ✓</i>	Desirable <i>Mark with ✓</i>
Professional qualification or accreditation relevant to the specialist field	✓	
Demonstrable experience of working with stakeholders to capture requirements	✓	
Experience of locating and understanding source data	✓	
Significant knowledge and understanding of ETL tools and data migration	✓	
Ability to create source-to-warehouse data mappings and undertake data profiling and source system analysis	✓	
Experienced in creating data flows from source to populate data warehouses	✓	
Skilled in use of SQL Queries	✓	
Experience in the building and management of Information and Data warehouses	✓	
Skilled in use of ETL tools (for example: Talend, SSIS, FME, Azure Data Factory)	✓	
Skilled in SQL Server database administration		✓



Experience of working with programming languages (for example DAX, Python, R).		✓
Ability to use advanced data modelling tools (SSAS)		✓
An understanding of the key strategic partnerships that impact on local government.		✓
Evidence of continuing professional development in relevant areas		✓

Working Arrangements

- The post is not politically restricted.
- Standard DBS check with Barring List is required.
- Contractual base as detailed on contract, but you are able to work on a flexible basis in line with our [Agile Working Policy](#)
- Able to travel across the county and work from various office locations within the county.

Health and Safety at Work

All employees have responsibilities for health and safety – both for themselves, colleagues and the people we work with. The potential significant hazard(s) and risk(s) for this post are identified below (those ticked).

☐	Provision of personal care on a regular basis	☐	Driving HGV or LGV for work
☐	Regular manual handling (which includes assisting, manoeuvring, pushing and pulling) of people (including pupils) or objects	☐	Any other frequent driving or prolonged driving at work activities (e.g. long journeys driving own private vehicle or a council vehicle for work purposes)
☐	Working at height/ using ladders on a regular/ repetitive basis	✓	Restricted postural change – prolonged sitting
☐	Lone working on a regular basis	☐	Restricted postural change – prolonged standing
☐	Night work	☐	Regular/repetitive bending/ squatting/ kneeling/crouching
☐	Rotating shift work	☐	Manual cleaning/ domestic duties
☐	Working on/ or near a road	☐	Regular work outdoors
✓	Significant use of computers (display screen equipment)	☐	Work with vulnerable children or vulnerable adults
☐	Undertaking repetitive tasks	☐	Working with challenging behaviours
☐	Continual telephone use (call centres)	☐	Regular work with skin irritants/ allergens
☐	Work requiring hearing protection (exposure to noise above action levels)	☐	Regular work with respiratory irritants/ allergens (exposure to dust, fumes, chemicals, fibres)
☐	Work requiring respirators or masks	☐	Work with vibrating tools/ machinery
☐	Work involving food handling	☐	Work with waste, refuse
☐	Potential exposure to blood or bodily fluids	☐	Face-to-face contact with members of the public
☐	Other (please specify):		