

WHITEHORSE CITY COUNCIL

Position description

Job title: Data Engineer	
Classification: Band 8	Effective Date: July 2025
Reports to: Coordinator Data, Integration and Analytics	Tenure: Permanent Full Time

About Us:

At Whitehorse City Council, community is at the heart of everything we do.

We aspire to be a healthy, vibrant, prosperous and sustainable community. We enable this through strong leadership and community partnerships.

We strive to stay ahead of evolving changes and needs of our community.

Our five key principles empower our employees to be innovative and provide an excellent customer experience. We are a resilient organisation where everyone belongs.



CREATe - Our Values and Behaviours:

Our shared values and behaviours are integral to how we go about our work, interact with each other and our community. Our employees 'live' these shared values. In living these values we also ensure that everyone has a voice and that everyone matters.

Collaboration	Respect	Excellence	Accountability	Trust
We work flexibly together to achieve outcomes and solve problems.	We actively listen, value diversity and care.	We adapt, respond, learn and grow.	We take responsibility and follow through on our promises.	We act with integrity and are empowered to make decisions.

City of Whitehorse is a culturally and linguistically diverse community. We are proud of the diversity of our workforce and recognise the strength this provides in meeting the needs of our community. We are committed to upholding a safe, inclusive and respectful workplace that values the contribution of all.



WHITEHORSE CITY COUNCIL

Position description

Whitehorse City Council is committed to being a child safe organisation. We recognise our responsibilities to keep children and young people safe from harm and have established policies, procedures and training to achieve these commitments.

Goal Statement

Whitehorse City Council is seeking a highly skilled Data Engineer to design, build, and optimize a Data Lake Platform for scalable, high-performance data analytics. The ideal candidate will have deep expertise in big data architectures, ETL pipelines, and cloud-based data solutions while ensuring data governance, security, and compliance.

Key Responsibilities

Position Specific Responsibilities

- Architect, design, and implement a scalable data platform to support structured, semi-structured, and unstructured data.
- Develop data ingestion pipelines to efficiently collect, store, and process massive datasets from various sources.
- Implement data processing frameworks (batch and streaming) using technologies such as Apache Spark, Kafka
- Developing end-to-end data solutions, including data ingestion, transformation, storage, and visualization layers.
- Ensure data governance, metadata management, and cataloguing using tools like AWS Glue, Colibra, or Azure Purview.
- Ensuring solutions align with industry best practices, security standards, and compliance requirements.
- Optimize query performance, storage, and cost-efficiency of the Data Lake platform.
- Collaborate with Data Scientists, Analysts, and Business Teams to enable advanced analytics and machine learning capabilities.
- Evaluate and integrate modern data technologies and best practices to enhance the Data Lake ecosystem.
- Creating and delivering architectural documentation, design patterns, and technical artifacts.
- Automate data infrastructure using IaC and CI/CD pipelines.
- Monitor, troubleshoot, and enhance system performance, scalability, and availability
- Contribute to technical and IT policy, procedure, standards and documentation development
- Actively contribute to the Disaster Recovery (DR) plan and the development and testing of DR scenarios

- Understand the operations and services of a dynamic team and be able to work in a team environment whilst making a positive contribution.

Corporate Responsibilities

- Ensure adherence to all Corporate Policies, Procedures and the Organisational Goals and Values Principles in the current Whitehorse City Council Collective Agreement by all staff under supervision.
- Ensure the organisation is aware of and compliant with relevant statutes and legislation.
- Identify and develop changes to policy and procedure in areas of responsibility.
- Ensure that risk management principles are adopted in all decision-making processes within the team.
- Ensure appropriate care and use of assets and equipment.

Accountability and Extent of Authority

Budget: Nil

Staff responsibility: Nil

Judgement and Decision Making

- The incumbent is required to exercise independent judgement and adaptability in evaluating and deciding on appropriate methods, procedures and practices for achieving organisational objectives and in reviewing and recommending improvements to those methods, procedures and practices.
- The position also requires decision making based on an understanding and knowledge of Council's goals and objectives.

Specialist Knowledge and Skills

- Proficiency in Big Data technologies: Hadoop, Spark, Hive
- Experience with Cloud-based Data Lake Solutions (AWS S3 + Glue + Athena, Azure Data Lake, GCP BigLake).
- Strong ETL/ELT skills using Airflow, or DBT.
- Deep understanding of data modeling, partitioning, and indexing strategies.
- Expertise in Python, PySpark for data processing and automation.
- Hands-on experience with SQL and NoSQL databases (Redshift, Snowflake, BigQuery, DynamoDB, Cassandra).

Qualifications and Experience

Qualifications/ Certificates /Licences:

- Bachelor or Master's degree in Computer Science, Data Engineering, or a related field.
- 5+ years of experience in data engineering and architecture with a focus on data lakes and lakehouse technologies
- Knowledge of Data Governance, Security, and Compliance frameworks.
- Familiarity with DevOps, CI/CD, and Infrastructure as Code (IaC).
- Strong analytical, problem-solving, and communication skills.
- ITIL training and qualifications would be an advantage.
- A valid Victorian driver's licence.
- Satisfactory National Criminal History Check.

Other Attributes (Desirable)

- Demonstrated knowledge of and commitment to the principles of Equal Opportunity and Occupational Health and Safety.
- Certifications in AWS, Azure, or GCP data engineering.
- Experience with Data Fabric, or Lakehouse architectures.
- Familiarity with ML/Data Science workflows and MLOps.
- Prior experience in real-time streaming data processing.

Interpersonal Skills

- Influential in building and maintaining effective relationships including demonstrated experience and skills in liaison, negotiation and problem solving with staff at all levels
- Provide high quality customer service to stakeholders in a friendly, positive and confident manner
- Ability to manage complex collaborative activities including multiple stakeholders from across the organisation, vendors, consultants and contractors.
- High level written and verbal communication skills with a strong customer service ethic
- Demonstrated ability to gain co-operation and negotiate successful outcomes with stakeholders
- Ability to deal with ambiguity, adapt working styles and deal with changing situations.
- Ability to work across multiple business areas, understanding their needs, to find solutions.

Key Relationships:

- The incumbent liaises with staff at all levels within the organisation including, Information Technology Manager, Executive, Managers, Business Support teams, peers and the user base. The position is required to maintain a professional relationship with Government departments and agencies, MAV, other Municipalities, service providers, staff associations, suppliers.
- The position may require contact with residents and community group representatives on matters relating to the Whitehorse computer systems.
- The position will liaise with all IT support staff, suppliers and Whitehorse City Council employees.

Management Skills

- Nil

Application Requirements

- Satisfactory National (and International as applicable) Criminal History Check.
- Working with Children Check.
- A valid Victorian driver's licence.

Key Selection Criteria

1. Relevant tertiary qualification in Information Technology or similar.
2. 5+ years of experience in data engineering and architecture with a focus on data lake and lakehouse technologies.
3. Knowledge of Data Governance, Security, and Compliance frameworks.
4. Familiarity with DevOps, CI/CD, and Infrastructure as Code (IaC).
5. Strong analytical, problem-solving, and communication skills.
6. Excellent organisation and time management combined with exemplary written and oral communication skills.
7. Demonstrated ability to work both independently and as a member/leader of a team, often working to strict deadlines with competing priorities.

Physical Requirements

TASK DESCRIPTIONS (Tick relevant frequency)

Task	Performed Often	Performed Sometimes	Never/Rarely Performed
Keyboard duties	✓		
Reading tasks	✓		
Writing tasks	✓		
Sitting (extended periods)	✓		
Walking/standing (briefly) - counter		✓	
Walking/standing (extended)		✓	
Driving car/utility/truck		✓	
Lifting/carrying duties (light)	✓		
Lifting/carrying duties (heavy)			✓
Pushing/pulling tasks (light)	✓		
Pushing/pulling tasks (heavy)			✓
Chopping/digging tasks			✓
Bending/kneeling requirements		✓	
Climbing stairs/ladders/scaffolds			✓
Handling grease/oils			✓
Exposure to dust/dirt			✓
Exposure to hazardous materials			✓
Exposure to noise		✓	
Repetitive arm/wrist/hand movements		✓	
Other (please specify)			

Any other relevant comments:

The position includes an inherent physical requirement to complete repetitive office-based activities and also heavy lifting may be required. Please refer to the Physical and Functional Requirements Checklist for more information. Short listed candidates may be required to attend a pre-employment medical examination.

A clear National Police check is essential, and a driver's licence is desirable.

The position may be required to attend out of hours meeting.

The position may be required to work from different locations within the municipality