

Position Description



Data Engineer

Division	Office of the Chief Executive
Team	Safety and Regulatory Insights
Location	Melbourne
Classification	ONRSR Enterprise Agreement - Specialist 1
Reports to	Senior Manager, Data Management & Platform
Direct Reports	Nil
Key Relationships	Internal: Director, Technology Services and business unit leads External: ONRSR technology vendors and suppliers

About ONRSR	The Office of the National Rail Safety Regulator (ONRSR) plays an integral role in keeping Australians safe across the nation's vast and varied rail networks. Headquartered in Adelaide, and with offices around the country, ONRSR is an independent regulatory authority that encourages safe rail operations, enforces national compliance with the <i>Rail Safety National Law</i>, and promotes and improves rail safety throughout Australia.
Our People and Our Culture	At ONRSR we aim to enhance and promote rail safety nationally through effective risk-based regulation. To achieve that, we need people with the vision to contribute to the safety of Australia's railways – people who are professional and motivated by the opportunity to improve rail safety and by the benefits this delivers to the Australian community. We recognise that a diverse workforce strengthens our capability by bringing together different perspectives, experiences, and skills. We are committed to creating an inclusive environment that enables all staff members to contribute fully. By fostering this culture, we support collaboration, drive innovation, enhance decision-making, and elevate our overall organisational performance. Our culture reflects our values of Integrity, Respect, Independence, Diligence and Excellence in the way we work, lead and engage with others. Our Culture

	Blueprint guides us to create a respectful, inclusive and equitable workplace where diversity is embraced, and every individual can contribute, grow, and thrive. Every role plays a part in shaping this culture.
Our Purpose	Safe railways for Australia
Your impact and contribution	The Data Engineer is responsible for designing, building and maintaining ONRSR's core data platforms and pipelines that underpin regulatory insight, intelligence and decision making. The role focuses on ensuring that data collected, integrated and stored by ONRSR is reliable, secure, scalable and fit for use in a national safety regulator context. Working closely with analysts, intelligence specialists and business stakeholders, the Data Engineer translates regulatory and operational requirements into robust technical solutions that enable evidence based regulation and safety improvement.
Your Responsibilities	Combining your demonstrated experience and knowledge of data engineering and passion for the transformative ability of data, information, and insights you will: • Design, develop and maintain data pipelines, integrations and storage solutions supporting regulatory systems such as TRAC and NLXP. • Implement and manage ingestion of structured and unstructured data from internal systems and external data providers. • Ensure data solutions meet security, privacy, legislative and risk management requirements. • Contribute to the development and maintenance of ONRSR's enterprise data model. • Optimise data structures and performance to support analytics, reporting and intelligence use cases. • Implement data quality checks, monitoring and automation to improve reliability and trust. • Document technical designs, data flows and operational processes to support sustainability and knowledge transfer. • Collaborate with platform, analytics and governance teams to continuously improve data capability. • Ensure reliability, availability and performance of data platforms supporting the enterprise data warehouse and advance analytics use cases. • Implement data validation, and monitoring processes to ensure accuracy, completeness, and timeliness of data. • Support the implementation of ONRSR's data architecture, standards, and engineering best practices, with the broader data strategy. • Ensure data engineering solutions comply with relevant information security, privacy, and governance requirements.

	• Troubleshoot and resolve data pipeline, platforms, and performance issues to ensure a continuous flow of trusted data.
Key Competencies	Key to success in this role is that you have: • Demonstrated experience in data engineering, including data pipelines, databases and integration technologies. • Strong understanding of data modelling, data quality and data lifecycle management. • Ability to design solutions in complex, multi-source data environments. • Understanding of information security, privacy and risk considerations in government or regulated settings. • Strong analytical thinking and problem solving capability. • Clear communication skills and ability to work effectively with technical and non-technical stakeholders. • Ability to prioritise competing demands by understanding the role of data in various analytical models. • Understanding of governance obligations including sound knowledge of the Privacy Act.
Qualifications and Experience	Key to success in this role is that you: • Hold a tertiary qualification in a relevant field (Data Engineering, Data Science Computer Science, or similar qualification) • Have a minimum of 5 years hands on Data Engineering experience. • Have experience in: ○ Microsoft Fabric: Lakehouse, Data Pipelines/Data Factory, notebooks, Delta tables and workspace deployment practices. ○ ETL/ELT engineering: building robust Bronze-Silver-Gold pipelines with incremental loads, schema evolution handling, and orchestration. ○ Python and SQL: strong coding for data transformation, validation, automation, and reusable pipeline components. ○ Dimensional modelling: practical experience designing Star/Snowflake schemas, conformed dimensions, surrogate keys, and SCD patterns. ○ Data quality and observability: automated checks, reconciliation, lineage, logging, and alerting for pipeline failures/data drift. ○ Performance optimisation: partitioning, file sizing, query tuning, and cost-aware processing in Fabric/Spark environments. ○ Security and governance: RBAC, least-privilege access, sensitive-data handling, and compliance-aware data design.
Capability Framework	• Cultural Capability Framework (L5-S2, RSO 2,3) • SRI Engineers (Data Engineer)
Your compliance	As a regulator, it is important that we are all on the same page when it comes to safety and risk management and everyone at ONRSR is responsible for actively

	supporting this aspect of our role to promote a positive and safe culture. ONRSR has a zero tolerance to the use of alcohol and non-prescription drugs for all workers while undertaking ONRSR work, in accordance with the Drug and Alcohol Policy.
Special Conditions	Special conditions that apply to this role include: • On occasions, this role may require you to work outside of normal business hours, on weekends and public holidays. • There is a requirement to travel which may include short stays in ONRSR interstate offices. • Required to complete a national police check • Hold and maintain the right to work in Australia
Privacy Notification	ONRSR requires personal information and documents relevant to your employment. The collection and handling of this information will be consistent with the requirements of relevant privacy laws.
Our Commitment to You	ONRSR is genuinely committed to investing in the capability of its team and is proud of its structured approach to supporting capability and development of all employees in a supportive environment. All team members can access opportunities to learn key skills in their role and about regulation through a range of programs including our Regulatory Officer Training Program. The success of these programs relies on your engagement, openness to learning and willingness to share with your peers. ONRSR expects its people to contribute to the efficient and effective functioning of the organisation to meet ONRSR and team strategic goals. This includes actively participating in the Performance Development Plan; demonstrating appropriate and professional behaviours in accordance with the Code of Conduct, Respect and Inclusion at ONRSR Policy and Culture Blueprint; providing assistance to team members if required; and undertaking other key responsibilities or activities as directed.
Your Commitment to ONRSR	I have read and understood the requirements of the position and agree to carry out the key responsibilities to the best of my ability. I understand that I may be required to perform other duties from time to time to fulfill the position requirements.

Employee Signature:	Date:
----------------------------	--------------