




# Data Engineer

## Position Description

Safety and Regulatory Insights

Adelaide | Specialist 1

	<p><b>About ONRSR</b></p> <p>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.</p> <p><b>Our People and Our Culture</b></p> <p>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.</p> <p>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.</p> <p><b>Our purpose</b></p> <p>Safe railways for Australia</p>
	<p><b>The Role – Your impact and contribution</b></p> <p>The <b>Data Engineer is</b> responsible for designing, building and maintaining ONRSR's core data platforms and pipelines that underpin regulatory insight, intelligence and decision-making.</p> <p>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.</p>
	<p><b>Key Relationships</b></p> <p><b>Reports to:</b> Senior Manager, Data Management and Platform</p> <p><b>Internal:</b> Senior Manager, Business Technology Services, and business unit leads</p> <p><b>External:</b> : ONRSR technology vendors and suppliers</p>
	<p><b>Your Responsibilities</b></p> <p><b>Activities</b></p> <p>Combining your demonstrated experience and knowledge of data engineering and passion for the transformative ability of data, information, and insights you will:</p>



- 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 in line 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.



### **What you Bring – Key Competencies**

Key to success in this role is that you are or 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.
- Pragmatic and practical understanding of data governance, tempered with the need of real data scientists working with imperfect data and imperfect systems.
- Robust understanding of data transformation especially using Apache Parquet and Databricks.
- Advanced knowledge and experience of SQL, experience in working with heavily normalised data structures.

- Ability to prioritise competing demands by understanding the role of data in various analytical models.
- Understand governance obligations including sound knowledge of the Privacy Act.
- Delivery and outcome focused with a constructive approach to challenges and problem solving.

**Helpful qualifications and experience**

The successful candidate will hold a tertiary qualification in a relevant field (Data Engineering, Computer Science, Statistics, Analytics) and have a minimum of 5 years hands on analytic experience.

**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 to 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. This includes workers recalled to duty unexpectedly who should decline to work if doing so puts them in breach of the Drug and Alcohol Policy.

**Other items of note**

On occasions, this role will 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. If you would like more information about how ONRSR regulates please read the [ONRSR Way 2020](#).

**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 and your Commitment to ONRSR**

ONRSR is genuinely committed to investing in the capability of its staff and is proud of its structured Regulatory Officer training program that will support Regulatory Officers in learning the *ONRSR Way* to rail safety compliance in a supportive environment. Opportunities to learn key skills in both a classroom and infield setting are made available through the delivery of our training program and advancing your skills and knowledge in these areas is also available within this program. The success of this program also relies on your engagement and willingness to engage with ONRSR staff and potentially coach and mentor staff in areas related to your subject matter expertise.

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 and Review process; demonstrating

appropriate and professional behaviours in accordance with the Code of Conduct and values; providing assistance to team members if required; and undertaking other key responsibilities or activities as directed.

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.