

Regulatory Data Scientist Position Description

Safety Strategy

Adelaide or Sydney, Level 5



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 *Rail Safety National Law*, and promotes and improves rail safety throughout Australia.

Our People

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, whose values align with ONRSRs values of independence, respect, integrity, diligence and excellence. People motivated by the opportunity to improve rail safety and by the benefits this delivers to the Australian community.

Our purpose

Safe railways for Australia



The Role – Your impact and contribution

The **Regulatory Data Scientist** is responsible for the development of advanced analytics to improve rail safety and provide essential insights to the National Operations teams.

Your contribution is to develop regulatory intelligence through the use of advanced statistical and machine learning methods which will require working closely with General Managers, Rail Safety Officers, Technical Specialists, Rail Information Officers and other Analysts to support ONRSR's risk-based approach to regulation.



Key Relationships

Reports to: Senior Manager, Data Analytics.

Internal: General Managers, Rail Safety Officers, Technical Specialists, Rail Information Officers.

External: Various rail organisations and custodians relevant of data.



Your Responsibilities

Activities

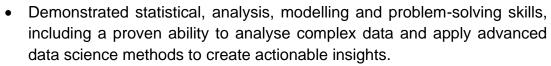
Combining your enthusiasm for data science and your demonstrated experience in analytics, you will:

 Explore and implement advanced analytics and modelling to enhance regulatory intelligence in order to improve rail safety in Australia.

- Consult with various stakeholders to determine regulatory intelligence that will enhance ONRSR's approach to co-regulation.
- Document and explain research conducted to both technical and nontechnical audiences.
- Integrate and analyse a broad range of regulatory data from a variety of internal and external sources, such as notifiable occurrences, audits, inspections, investigations, publications and safety performance reports.
- Respond to ad-hoc requests for analyses of regulatory data to support riskbased regulatory decision making.
- Promote continuous improvement and contribute to projects to enhance systems and processes for the capture, analysis and reporting of regulatory data and associated insights.
- Work constructively with and support the other members of the Data Analytics team.



Key to success in this role is that you have:



- Experience programming in Python/R and SQL to interrogate and analyse both structured and unstructured data.
- Deep understanding of statistical modelling and machine learning concepts, including time series analysis, natural language processing, large language models, classification, etc.
- Minimum five years' experience in a data science related role with tertiary qualification in a STEM related subject desirable.
- Experienced in meeting regular deadlines and flexible enough to adapt to ad-hoc and urgent reporting requests.
- Experienced in the use of business intelligence tools to access, model and analyse data and create interactive reports and visualisations for end users, especially Power BI.
- Well-developed interpersonal, written and verbal communication skills that enable effective and appropriate communication with a broad range of stakeholders.
- Ability to work both independently and as part of a team, demonstrating initiative in managing high volumes, determining priorities and organising work to meet strict deadlines.
- Possess an energetic, dynamic and proactive approach to resolving issues.

Helpful qualifications and experience

 Knowledge and understanding of railway operations and experience using rail safety data is desirable.



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 team and is proud of its structured Regulatory Officer Training Program that supports Regulatory Officers in learning the *ONRSR Way* to rail safety compliance in a supportive environment. All team members can access opportunities to learn key skills in their role and about regulation through this integral 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 and values; providing assistance to team member s 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.