Role Description
Senior Data Engineer

Role Description Fields	Details
Department/Agency	SafeWork NSW
Division/Branch/Unit	Strategic & Corporate Services/ Data and Digital Systems
Classification/Grade/Band	Clerk Grade 9/10
ANZSCO Code	TBC
OSCA Code	TBC
PCAT Code	TBC
Role Family/Function/Type	Data Architecture and Engineering
Date of Approval	May 2026
Agency website	www.safework.nsw.gov.au

Primary purpose of the role

Deliver expert advice and services in the design of data products and data-related services to support the achievement of business outcomes and strategic goals.

Key accountabilities

- Act as a trusted partner collaborating with stakeholders to design, build, test and maintain complex data management systems, to ensure they meet business requirements and user needs.
- Deliver automated, reliable and secure services that provide valuable insights to inform decision making.
- Mentor and coach others to facilitate the development of a suite of robust and automated products that are aligned to best practice methodologies and industry recognised practices and standards.
- Provide expert advice to stakeholders, recommending and implementing ways to improve data efficiency and reliability, ensuring associated risks with deployment are documented and understood.
- Uses agreed standards and tools to design, develop, test, correct and document moderate to complex programs and scripts from agreed specifications and subsequent iterations to meet service delivery outcomes.
- Make complex and technical information and language simple and accessible for non-technical audiences, facilitating difficult discussions within the team or with diverse senior stakeholders and assisting with the management of collaborative processes across the organisation to support the delivery of services to stakeholders and clients.

Key challenges

- Deriving business solutions through creative analysis and insights, whilst ensuring solutions are robust and fit for purpose.
- Responding to client requests for data products and advice while balancing competing demands to ensure objectives are achieved.

- Establishing relationships with stakeholders to develop trust and confidence in designing and creating data fabric that is flexible and robust.

Key relationships

Internal

Who	Why
Manager	• Escalate issues, keep informed, receive guidance and instructions and contribute to decision making • Participate in meetings and discussions to share information, provide advice, input and feedback • Identify sensitive issues, risk & opportunities and recommend potential solutions • Provide regular updates on key projects/programs and priorities
Work team	• Guide, support, coach and mentor team members • Support team members and work collaboratively to contribute to achieving business outcomes • Participate in discussions and decisions regarding resolution of issues and implementation of innovation and best practice • Represent work group perspective and share information • Review work and proposals of team members
Customers/Stakeholder	• Manage the flow of information, seek clarification, and provide customer focused advice and responses to ensure prompt resolution of issues • Articulate the needs and requirements of the service and collaborate with to negotiate solutions, provide expert customer focused advice and regular updates • Address/respond to queries to provide advice where possible, or redirect to relevant party for review and resolution • Optimise engagement to achieve defined outcomes and manage expectations

External

Who	Why
Customers/Stakeholder	• Respond and resolve queries, provide information and/or resources or redirect to the appropriate person or business unit if required • Develop and maintain effective working relationships and open channels of communication to provide and obtain information, and ensure effective management and implementation of expectations and standards • Engage with, consult, seek clarification and provide customer focused advice and responses to ensure the prompt resolution of issues

Role dimensions

Decision making

This role has autonomy and makes decisions that are under their direct control as directed by their Manager. It refers to a Managers' decisions that require significant change to program outcomes or timeframes or are likely to escalate or require submission to a higher level of management. This role is fully accountable for the delivery of work assignments on time and to expectations in terms of quality,

deliverables and outcomes. This role submits reports, business cases and other forms of written advice with minimal input from the manager.

Reporting line

Manager Data Architecture and Engineering

Direct reports

Various

Budget/Expenditure

As per the SafeWork NSW Delegations.

Essential requirements

Tertiary qualifications in Statistics, Mathematics, Social Science, Actuary, Engineering, Computer Science, Econometrics or equivalent experience.

Capabilities for the role

The NSW public sector capability framework describes the capabilities (knowledge, skills and abilities) needed to perform a role. There are four main groups of capabilities: personal attributes, relationships, results and business enablers, with a fifth people management group of capabilities for roles with managerial responsibilities. These groups, combined with capabilities drawn from occupation-specific capability sets where relevant, work together to provide an understanding of the capabilities needed for the role.

The capabilities are separated into focus capabilities and complementary capabilities

Focus capabilities

Focus capabilities are the capabilities considered the most important for effective performance of the role. These capabilities will be assessed at recruitment.

The focus capabilities for this role are shown below with a brief explanation of what each capability covers and the indicators describing the types of behaviours expected at each level.

Focus capabilities

Capability group/sets	Capability name	Behavioural indicators	Level
	**Manage Self** Be persistent, self-reflect and commit to learning	• Keep up to date with contemporary knowledge and practices • Seek and take advantage of opportunities to learn and apply new skills • Commit to achieving challenging goals • Seek and respond positively to constructive feedback and advice • Examine and reflect on your performance	Adept

Capability group/sets	Capability name	Behavioural indicators	Level
	**Communicate Effectively** Communicate clearly, pay attention to others and respond with understanding and respect	• Tailor communication to suit the needs, backgrounds and perspectives of diverse audiences and address barriers to participation • Clearly explain complex ideas and arguments to individuals and groups • Create opportunities for others to contribute • Share information with other teams and business units to enable informed decision-making • Write clearly and concisely in a range of styles and formats • Use contemporary communication channels to share information, engage and interact with diverse audiences • Pay attention and encourage others to express their views	Adept
	**Commit to Customer Service** Provide customer-focused services in line with public sector and organisational objectives	• Take responsibility for delivering high-quality customer-focused services • Design processes and policies based on the customers' experience and engage people with lived experience to inform service improvements • Create opportunities to learn about and measure what is important to customers by engaging with a wide range of customer experience • Use customer data, feedback and insights to improve service delivery • Find opportunities to collaborate with internal and external stakeholders to improve outcomes for customers • Maintain relationships with key customers in your area of expertise • Connect and collaborate with relevant customers from the community	Adept

Capability group/sets	Capability name	Behavioural indicators	Level
	**Work Collaboratively** Collaborate with others and value their contribution	• Encourage a workplace culture that values collaboration • Communicate with other teams to improve information sharing • Share lessons learned with other teams and business units • Identify opportunities to collaborate with stakeholders, including people with lived experience, to develop better processes and solutions • Actively use digital information platforms, collaboration tools and other digital technologies to share information and work with diverse audiences to solve problems and improve services • Consider diverse cultural perspectives to provide insights into collaborative work	Adept
	**Deliver Results** Achieve results by using resources efficiently and committing to quality outcomes	• Use your own and others' expertise to achieve outcomes, and take responsibility for delivering intended outcomes • Ensure staff understand expected goals and acknowledge staff success in achieving these • Identify the resources people need and ensure goals are achieved within budget and on time • Use business data to evaluate outcomes and inform continuous improvement • Identify priorities that need to change and ensure the way resources are allocated meets new business needs • Ensure you budget for and clearly state the financial impacts of new priorities	Adept

Capability group/sets	Capability name	Behavioural indicators	Level
	**Think and Solve Problems** Think, analyse and consider the broader context to develop practical solutions	• Undertake objective, critical analysis to reach accurate conclusions that recognise and manage contextual issues • Work through issues, weigh up alternatives and identify the most effective solutions in collaboration with others • Consider the wider business context when thinking about options to resolve issues • Explore a range of possibilities and creative alternatives to improve systems, processes and business practices • Put systems and processes in place that are supported by high-quality research and analysis • Look for opportunities to design innovative solutions to meet customers' needs and service demands • Evaluate the performance and effectiveness of services, policies and programs against clear criteria	Advanced
	**Technology** Understand and use available technologies to maximise efficiencies and effectiveness	• Promote using creative and accessible technology in your organisation • Actively manage risk to ensure compliance with cyber security and acceptable use of technology, including record keeping, cybersecurity, privacy, and responsible artificial intelligence use • Keep up to date with new technology and technological trends to understand how using them can support business outcomes • Seek advice from appropriate subject matter experts about using technology to achieve business strategies and outcomes • Lead the appropriate use of digital systems, ensuring outputs are aligned with legal, ethical, and organisational standards	Advanced

Occupation specific capability set

Capability group/sets	Capability name	Behavioural indicators	Level
SFIA	**Data science** Applying mathematics, statistics, data mining and predictive modelling techniques to gain insights, predict behaviours and generate value from data	• Plans, coordinates and drives all stages of the development of data science solutions. • Provides expert advice to evaluate the problems to be solved and the need for data science solutions. Identifies and justifies what data sources to use or acquire. • Specifies and applies appropriate data science techniques and specialised programming languages. • Critically reviews the benefits and value of data science techniques and tools and recommends improvements. Contributes to developing policy, standards and guidelines for developing, evaluating, monitoring and deploying data science solutions.	Level 5 DTAS
SFIA	**Programming/software development** Developing software components to deliver value to stakeholders	• Takes technical responsibility across all stages and iterations of software development. • Plans and drives software construction activities. Adopts and adapts appropriate software development methods, tools and techniques. • Measures and monitors applications of project/team standards for software construction, including software security. • Contributes to the development of organisational policies, standards and guidelines for software development.	Level 5 PROG

Complementary capabilities

Complementary capabilities are also identified from the Capability Framework and relevant occupation-specific capability sets. They are important to identifying performance required for the role and development opportunities.

Note: capabilities listed as 'not essential' for this role are not relevant for recruitment purposes however may be relevant for future career development.

Capability group/sets	Capability name	Description	Level
Personal attributes	Display Resilience and Courage	Be open and honest, prepared to express your views, and willing to accept and commit to change	Adept
Personal attributes	Act with Integrity	Be ethical and professional, and uphold and promote the public sector values	Intermediate
Personal attributes	Value Diversity and Inclusion	Be inclusive and respect diverse backgrounds, experiences and perspectives	Intermediate

Capability group/sets	Capability name	Description	Level
	Influence and Negotiate	Gain consensus and commitment from others, and resolve issues and conflicts	Adept
	Plan and Prioritise	Plan to achieve priority outcomes and respond flexibly to changing circumstances	Intermediate
	Demonstrate Accountability	Be proactive and responsible for your actions, and follow legislation, policy and guidelines	Intermediate
	Finance	Understand and apply financial processes to achieve value for money and minimise financial risk	Intermediate
	Procurement and Contract Management	Understand and use procurement processes to ensure effective purchasing and contract performance	Intermediate
	Project Management	Understand and use effective ways to plan, coordinate and control projects	Intermediate

Occupation specific capability set

Capability group/sets	Capability name	Description	Level
SFIA	Functional testing	Assessing specified or unspecified functional requirements and characteristics of products, systems and services through investigation and testing.	Level 5 - TEST