

Role Description

Data Scientist



Cluster	Creative Industries, Tourism, Hospitality and Sport
Department/Agency	NSW Institute of Sport
Division	Corporate Services
Classification/Grade	NSWIS Grade 3 Level 2
Senior executive work level standards	Not applicable
Location	Sydney Olympic Park
OSCA Code	223234
PCAT Code	3226892
Date of Approval	5 August 2026
Agency Website	NSW Institute of Sport (NSWIS)

Agency overview

The NSW Institute of Sport [NSWIS] is a high performance sporting organisation that supports exceptional athletes and inspires NSW communities. We reach all regions of NSW with an Olympic and Paralympic training facility based at Sydney Olympic Park and high performance hubs across NSW that provide world leading daily training environments. Our experts work in collaboration with national sporting system partners to deliver high performance support services and environments to prepare athletes and coaches for international competition.

NSWIS plays an integral part in Australia's High Performance 2032+ Sport Strategy – Win Well. We are committed to building an inclusive and sustainable sporting system that is athlete focused, exceptionally led and purposefully collaborative.

We ensure athlete safeguarding is prioritised and that the integrity of sport is embedded in our organisation.

Primary purpose of the role

The Data Scientist will develop and deliver data services to both internal and external client groups by executing high value data science initiatives. A strong focus will be increasing the advanced analytics capability within NSWIS by leading data science projects focused on organisational and athlete performance.

This role will play a significant part in the ongoing execution of an organisation wide road map and best practice approach to data science ensuring NSWIS develops an international reputation as a progressive leader and provides our athletes with access to world class performance environments and services.

Key accountabilities

- Collaborate with managers to execute data science initiatives and projects aligned with NSWIS strategic objectives and business planning. This includes exploratory data analysis,

building effective statistical models, computer vision projects, and disseminating insights from findings to impact athlete and organisational performance.

- Provide technical expertise to other members of the Sport Intelligence & Technology team, as well as internal and external client groups, to impact performance, encourage innovation, and drive evidence-based decision making.
- Frame business/organisational problems into mathematical models, develop analytics-based solutions, and present actionable recommendations to key stakeholders.
- Deploy and maintain an appropriate technology stack that enables the delivery of high-quality data science applications.
- Support ongoing data stewardship by ensuring the integrity and security of all data systems and platforms, taking a best-practice approach across the organisation in relation to data governance and handling.
- Assist Performance Support Staff in the use and implementation of appropriate data science systems, coding, models, and platforms to achieve daily training environment and sport program objectives.
- When appropriate, contribute to national high-performance data science/technology and innovation projects.

Key challenges

- Providing solutions or insights to support recommendations to complex issues and challenges in an efficient manner that is in line with both the National Data Strategy and NSWIS data security policies.
- Maintaining the Institute's position as a data science leader in the national system and develop technology and innovation capabilities within NSWIS
- Working collaboratively within a restricted resource environment, with multiple stakeholders and varying agendas

Key relationships

Internal

Who	Why
Supervisor/Manager	• To seek guidance and ensure performance is aligned for success
NSWIS staff & managers	• To work collaboratively to achieve organisational objectives
NSWIS Performance Teams	• To support an integrated delivery of a high-performance program to collaboratively prepare world's best athletes

External

Who	Why
System Partners	• To support the achievement of NSWIS and system outcomes

Role dimensions

Decision making

This role has some level of autonomy and refers to the line manager for decisions that require significant change to program outcomes or timeframes or are likely to escalate.

The role is fully accountable for the delivery of work assignments on time and to expectations in

terms of
quality, deliverables, and outcomes.

Reporting line

This role accounts and reports to the Section Lead, Senior Data Analyst

Direct reports

Nil

Budget/Expenditure

Nil

Key knowledge and experience

- Technical excellence in statistics, machine learning, generative AI, large language models (LLMs), computer vision or software engineering
- Experience working with surveillance systems, longitudinal datasets, and/or sensor data particularly related to cloud-based data warehousing and reporting
- Proven capability in project management
- Ability to work with various data sources, platforms and software and a proven ability to work with Python, R, MS SQL Server, MongoDB, Snowflake or similar programs.
- Demonstrated ability to deliver analysis using web apps and visualisation tools such as Streamlit, R Shiny Power BI, or similar.
- Demonstrated high level data science skills, including, experience with data wrangling and joining from multiple sources.
- Demonstrated experience applying Artificial Intelligence (AI) and Generative AI techniques to solve business problems, including the development, evaluation and deployment of machine learning and large language model (LLM) solutions, with an understanding of responsible AI, model governance and emerging AI technologies.
- Demonstrated capacity to provide timely, compelling and concise advice to inform executive members, senior management and internal/external client groups to support decision making
- Intermediate/Advanced knowledge of MS Office and other sports specific computer programs; Smartabase or similar Athlete Management System (AMS) is desirable
- Intermediate/Advanced knowledge of SQL and NoSQL databases
- Experience using version control (eg. Github)

Essential requirements

- Fluent programming skills: R or Python, and SQL
- Experience managing and maintaining cloud-based databases
- Intermediate/advanced knowledge of MS Office programs
- Ability to transform data into meaningful information for stakeholders.
- Current Working with Children check

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.

Capability group/sets	Capability name	Behavioural indicators	Level
 Personal Attributes	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
 Relationships	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
	Influence and Negotiate Gain consensus and commitment from others, and resolve issues and conflicts	- Negotiate from an informed and credible position - Lead and facilitate productive discussions with staff and stakeholders	Adept

Capability group/sets	Capability name	Behavioural indicators	Level
Relationships		- Encourage others to share and debate ideas to help reach a consensus - Recognise diverse perspectives and the need for compromise when negotiating mutually agreed outcomes - Influence others with a fair and thoughtful approach and sound arguments - Be sensitive and show understanding when resolving conflicts and differences - Manage challenging relationships with internal and external stakeholders - Anticipate and minimise conflict	
 Results	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
 Results	Plan and Prioritise Plan to achieve priority outcomes and respond flexibly to changing circumstances	- Consider the future aims and goals of the team, business unit and your organisation when prioritising work - Set, prioritise, consult on and develop team and business unit goals, strategies and plans - Anticipate, assess and respond appropriately to the impact of changes, including changes to government policy and economic conditions, on team or business unit goals - Ensure current work plans and activities support and are consistent with organisational change initiatives - Evaluate outcomes and adjust plans accordingly	Adept
	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	Advanced

Capability group/sets	Capability name	Behavioural indicators	Level
Results		• 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	
 Business Enablers	Project Management Understand and use effective ways to plan, coordinate and control projects	• Prepare and review project scope and business cases for projects with multiple interdependencies • Use key subject matter experts' knowledge to inform project plans and directions • Design and implement effective stakeholder communication strategies for all project stages • Monitor project completion and implement effective and rigorous project evaluation methodologies to inform future planning • Develop strategies to correct projects if they vary from their plans • Manage transitions between project stages and ensure any changes to projects are consistent with organisational goals • Participate in governance processes, such as project steering groups	Advanced

Complementary capabilities

Complementary capabilities are also identified from the Capability Framework and relevant occupation-specific capability sets. They are important to identify 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	Intermediate
 Personal Attributes	Act with Integrity	Be ethical and professional, and uphold and promote the public sector values	Adept
 Personal Attributes	Value Diversity and Inclusion	Be inclusive and respect diverse backgrounds, experiences and perspectives	Intermediate
 Relationships	Communicate Effectively	Communicate clearly, pay attention to others and respond with understanding and respect	Adept
 Relationships	Commit to Customer Service	Provide customer-focused services in line with public sector and organisational objectives	Adept
 Results	Demonstrate Accountability	Be proactive and responsible for your actions, and follow legislation, policy and guidelines	Adept
 Business Enablers	Finance	Understand and apply financial processes to achieve value for money and minimise financial risk	Intermediate

Capability group/sets	Capability name	Description	Level
 Business Enablers	Technology	Understand and use available technology to maximise efficiencies and effectiveness	Adept
 Business Enablers	Procurement and Contract Management	Understand and use procurement processes to ensure effective purchasing and contract performance	Intermediate