

NSWIS ROLE DESCRIPTION

Role title:	Data Scientist
Reports to:	Manager, ITO
Area:	ITO
Division:	High Performance
Location:	Sydney Olympic Park, NSW
Roles that report to this role:	Performance Data Coordinator

ORGANISATIONAL CONTEXT

The NSW Institute of Sport [NSWIS] supports Australian athletes to become world’s best. We are a nationally focused high-performance centre, Olympic and Paralympic training facility based at Sydney Olympic Park, reaching all regions of NSW. In partnership with the national high-performance sport system and national and state sporting bodies we enable, impact and support targeted athletes, coaches and performance support staff to prepare for international competition. Performance is at the centre of all that we do, and our people are our greatest performance advantage.

ROLE PURPOSE

Establish a data science discipline and provide high level data science services, and advice to internal and external client groups within targeted sports and the greater Australian high-performance sport network. A strong focus will be increasing the data analytics capability within NSWIS. The role will manage projects and work within a diverse dynamic environment

KEY CHALLENGES

- Build and develop the data science capability within NSWIS
- Build partnerships within industry, universities and sport institutes to enhance operations
- Working in a fast paced, complex multi-sport and multi-discipline high performance environment.
- Working collaboratively within a restricted resource environment, with multiple stakeholders and varying agendas.
- Adapting ways of working to include ‘cross discipline’ delivery of services requiring liaison with discipline expertise

KEY RELATIONSHIPS

Who	Why
Direct reports (staff)	To align performance for success and enable individual excellence To supervise, mentor, coach and develop
Supervisor/manager	To ensure performance is aligned for success
NSWIS staff & managers	To work collaboratively to support, enable and impact athlete performance and organisational effectiveness
NSWIS partners	Foster collaborative relationships that inform and support Data projects, including AIS, SIS/SAS, Universities and industry partners
NSWIS Sport	Use data science to improve decisions making that supports athlete improvement
ITO Team	To support the integrated and holistic service to the organisation in regard to data science

KEY ACCOUNTABILITIES


Operational	Description
Data Science Services	<p>In consultation with team managers, implement the organisational strategic agenda to achieve section and business outcomes. This includes:</p> <ul style="list-style-type: none"> ▪ Collect, process, cleanse and analyse data from various sports. ▪ Develop, evaluate and improve data analysis methods for technical applications ▪ Conduct analytic projects as directed and produce results and reports. ▪ Lead development of data storage, data processing and data retrieval systems ▪ Maintain professional knowledge and continue to develop knowledge and expertise in relation to professional skills and requirements ▪ Provide advice and interpretation within technical or specialist area, including preparing relevant strategic advice where appropriate ▪ Conduct research and analysis on complex matters within area of expertise and disseminate findings to key stakeholders, including the writing of peer reviewed publications where applicable ▪ Liaise with internal and external professionals to resolve assessments, complete assessments or make referrals and ensure positive outcomes ▪ Contribute to the identification and implementation of improvement initiatives
Project Management	<ul style="list-style-type: none"> ▪ Analyse data science capabilities of NSWIS ▪ Identify suitable projects ▪ Develop project plan including timelines and milestones ▪ Implement, manage and review Plan ▪ Report on results
Staff – Professional Excellence and Planning [PEP]	<ul style="list-style-type: none"> ▪ Meet monthly or quarterly with employees and management to plan and discuss performance, monitor progress and consider future requirements ▪ Proactively drive the formal PEP process with all employees ▪ Commit to delivering on the agreed professional development plan
Operations & Reporting	<p>Utilise and work with NSWIS staff including:</p> <ul style="list-style-type: none"> ▪ Coordinate the financial and administrative aspects of Data Science and associated projects ▪ Communicate effectively and fulfil all agreed responsibilities and respective ITO Business Plan requirements ▪ Support and/or establish, implement and maintain quality data capture, analysis and reporting process using AMS as the primary platform in support of sport, discipline and organisational performance outcomes ▪ Manage issues professionally
General	<ul style="list-style-type: none"> ▪ Represent the NSWIS as required ▪ Work collaboratively with other sections/units of NSWIS towards organisational and sport outcomes ▪ Adhere to all the NSW Institute of Sport policies and procedures, particularly the Code of Conduct ▪ Reflect the NSWIS values in everyday work environment ▪ Comply with WHS legislation, company WHS policies, objectives and procedures. Contribute and participate in the health and safety of all staff, visitors and contractors.

SUCCESS PROFILE

Experience	Qualifications and Knowledge
<ul style="list-style-type: none"> ▪ Technical excellence in statistics, machine learning or computer engineering. ▪ Experience using Statistical techniques including correlation analysis, design of experimentation ▪ Experience working with surveillance systems, longitudinal datasets, sensor data and/or data linkage particularly related to cloud-based data warehousing and reporting ▪ Proven capability in project management as evidenced by formal qualifications and/or informal learning ▪ Ability to work with various data sources, platforms and software and a proven ability to work with Stata, R, R Studio, Python or similar programs. ▪ Demonstrated ability to deliver analysis using web apps such as Shiny, DASH (plotly) or similar ▪ Demonstrated high level data science skills, including the ability to: <ul style="list-style-type: none"> ➢ Track record in research and particularly within data science. ➢ Experience with data wrangling from multiple sources. ➢ Good understanding of Machine Learning (Supervised Learning and Unsupervised Learning). ▪ Data mining skills including cluster analysis, neural networks and predictive modelling ▪ Experience with data flow, data standardization and integration, data transformation using SQL. ▪ Demonstrated capacity to provide timely, compelling and concise advice to inform executive members, senior management and internal/external client groups to support decision making. 	<ul style="list-style-type: none"> ▪ Postgraduate qualifications in one of the following areas: data science, mathematics, information technology, epidemiology (with advanced data analysis), or biostatistics ▪ Fluent programming skills (Python, R, Java etc.) ▪ Intermediate/Advanced knowledge of MS Office and other sports specific computer programs, AMS Smartabase (desirable) ▪ First aid and resuscitation certificate ▪ Working with children check ▪ Current driver’s license
Competencies	Personal Attributes
<ul style="list-style-type: none"> ▪ Execution ▪ Driving Innovation ▪ Facilitating Change ▪ Influencing ▪ Creating a culture of trust ▪ Building Partnerships ▪ Building Networks ▪ Strategic Planning ▪ Planning and Organising ▪ Inspiring others 	<ul style="list-style-type: none"> ▪ Passion/Enthusiasm for sport ▪ Initiative/Adaptability ▪ Continuous learning ▪ Commitment/Persistence/Discipline ▪ Team Player ▪ Competitive/Drive ▪ Courage ▪ Authenticity/Honesty/Integrity ▪ Clarity of thinking

CAPABILITY SUMMARY

The NSW Public Sector Capability Framework applies to all NSW public sector employees. The Capability Framework is available at www.psc.nsw.gov.au/capabilityframework. Below is the full list of capabilities and the level required for this role. The capabilities in bold are the focus capabilities for this role. Refer to the next section for further information about the focus capabilities.

Capability Group	Capability Name	Level
 Personal Attributes	Display Resilience and Courage	Adept
	Act with Integrity	Advanced
	Manage Self	Advanced
	Value Diversity	Intermediate
 Relationships	Communicate Effectively	Advanced
	Commit to Customer Service	Advanced
	Work Collaboratively	Adept
	Influence and Negotiate	Adept
 Results	Deliver Results	Advanced
	Plan and Prioritise	Adept
	Think and Solve Problems	Advanced
	Demonstrate Accountability	Adept
 Business Enablers	Finance	Intermediate
	Technology	Advanced
	Procurement and Contract Management	Intermediate
	Project Management	Advanced
 People Management	Manage and Develop People	Adept
	Inspire Direction and Purpose	Adept
	Optimise Business Outcomes	Advanced
	Manage Reform and Change	Adept

FOCUS CAPABILITIES

The focus capabilities for the role are the capabilities in which occupants must demonstrate immediate competence. The behavioural indicators provide examples of the types of behaviours that would be expected at that level and should be reviewed in conjunction with the role's key accountabilities.

Group and Capability	Level	Behavioural Indicators
Personal Attributes Manage Self	Advanced	<ul style="list-style-type: none"> ■ Act as a professional role model for colleagues, set high personal goals and take pride in their achievement ■ Actively seek, reflect and act on feedback on own performance ■ Translate negative feedback into an opportunity to improve ■ Maintain a high level of personal motivation ■ Take the initiative and act in a decisive way
Relationships Communicate effectively	Advanced	<ul style="list-style-type: none"> ■ Present with credibility, engage varied audiences and test levels of understanding ■ Translate technical and complex information concisely for diverse audiences ■ Create opportunities for others to contribute to discussion and debate ■ Actively listen and encourage others to contribute inputs ■ Adjust style and approach to optimise outcomes ■ Write fluently and persuasively in a range of styles and formats
Relationships Influence & negotiate	Adept	<ul style="list-style-type: none"> ■ Negotiate from an informed and credible position ■ Lead and facilitate productive discussions with staff and stakeholders

Group and Capability	Level	Behavioural Indicators
		<ul style="list-style-type: none"> ▪ Encourage others to talk, share and debate ideas to achieve a consensus ▪ Recognise and explain the need for compromise ▪ Influence others with a fair and considered approach and sound arguments ▪ Show sensitivity and understanding in resolving conflicts and differences ▪ Manage challenging relations with internal and external stakeholders ▪ Pre-empt and minimise conflict
Results Deliver Results	Advanced	<ul style="list-style-type: none"> ▪ Drive a culture of achievement and acknowledge input of others ▪ Investigate and create opportunities to enhance the achievement of organisational objectives ▪ Make sure others understand that on-time and on-budget results are required and how overall success is defined ▪ Control output of business unit to ensure government outcomes are achieved within budget ▪ Progress organisational priorities and ensure effective acquisition and use of resources ▪ Seek and apply the expertise of key individuals to achieve organisational outcomes
Results Plan & prioritise	Adept	<ul style="list-style-type: none"> ▪ Take into account future aims and goals of the team/unit and organisation when prioritising own and others' work ▪ Initiate, prioritise, consult on and develop team/unit goals, strategies and plans ▪ Anticipate and assess the impact of changes, such as government policy/economic conditions, on team/unit objectives and initiate appropriate responses ▪ Ensure current work plans and activities support and are consistent with organisational change initiatives ▪ Evaluate achievements and adjust future plans accordingly
Results Think & solve problems	Advanced	<ul style="list-style-type: none"> ▪ Undertake objective, critical analysis to draw accurate conclusions that recognise and manage contextual issues ▪ Work through issues, weigh up alternatives and identify the most effective solutions ▪ Take account of the wider business context when considering options to resolve issues ▪ Explore a range of possibilities and creative alternatives to contribute to systems, process and business improvements ▪ Implement systems and processes that underpin high quality research and analysis
Business Enablers Technology	Advanced	<ul style="list-style-type: none"> ▪ Show commitment to the use of existing and deployment of appropriate new technologies in the workplace ▪ Implement appropriate controls to ensure compliance with information and communications security and use policies ▪ Maintain a level of currency regarding emerging technologies and how they might be applied to support business outcomes ▪ Seek advice from appropriate technical experts to leverage information, communication and other technologies to achieve business outcomes • Implement and monitor appropriate records, information and knowledge management systems protocols and policies
Business Enablers Project Management	Advanced	<ul style="list-style-type: none"> ▪ Prepare scope and business cases for more ambiguous or complex projects including cost and resource impacts ▪ Access key subject-matter experts' knowledge to inform project plans and directions ▪ Implement effective stakeholder engagement and communications strategy for all stages of projects ▪ Monitor the completion of projects and implement effective and rigorous project evaluation methodologies to inform future planning ▪ Develop effective strategies to remedy variances from project plans, and minimise impacts ▪ Manage transitions between project stages and ensure that changes are consistent with organisational goals