PRODUCT DATA SCIENTIST

BRANCH/UNIT	Product Insights & Innovation		
TEAM	Insights & Engagement		
LOCATION	Location Negotiable		
CLASSIFICATION/GRADE/BAND	TAFE Worker Level 9		
POSITION NO.	TBA		
ANZSCO CODE	224712	PCAT CODE	1229192
TAFE Website	www.tafensw.edu.au		

1. ORGANISATIONAL ENVIRONMENT

TAFE NSW's purpose is to skill the workforce of the future. It is Australia's leading provider of vocational education and training with over 500,000 annual enrolments and a proud history for setting the benchmark for quality service. As the NSW public provider, it supports the NSW Government's priority to grow skills for the economy and jobs of tomorrow. Critically, TAFE NSW plays a vital role in providing vocational education in rural and regional NSW, and job training pathways for the most vulnerable in the community.

TAFE NSW offers the best of campus-based delivery as well as flexible, online and work-based learning. The TAFE NSW values of Customer First, Collaboration, Integrity and Excellence guide our team in strengthening communities, delivering world-class training for our students and producing job ready graduates for employers. The operating environment for TAFE NSW is dynamic as we leverage our scale, expertise, passion and reputation to meet the rapidly changing VET landscape.

TAFE NSW is committed to its students and customers and the role it plays in changing lives and opening up opportunities through learning.

2. POSITION PURPOSE

The Product Data Scientist is responsible for advancing data science and machine learning technology within the Insights & Innovation unit of the Product Group and TAFE NSW. This role plays a key role in extraction, analysis, processing and presention of complex data, insights and actionable recommendations.

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3. KEY ACCOUNTABILITIES

1. Extract, process and analyse complex and multifarious raw data and intelligence and apply a range of techniques to synthesize this into simple, yet actionable, insights messaging.
2. Operate as a master storyteller, prepare analysis, methods, results, insights and recommendations to non-expert personnel, management teams and technical experts throughout different projects
3. Analyse research data, producing customised charting, writing and proofing reports, preparing results presentations and participating in the delivery of reports and services to stakeholders across the business.
4. Develop and manage data science processes, policies, procedures and frameworks in the development of innovative solutions for use across TAFE NSW and the enhancement of Product Group data science capability.
5. Provide specialist technical advice and guide the work of a team of Analysts in data science to ensure insights align to business and Product Group initiatives.
6. Proactively explore lead and lag indicators, and construct sophisticated analyses to inform strategic direction based on insights drawn from data analyses.
7. Support customised projects by designing and implementing advanced statistical models on TAFE NSW data sets, and oversee mulitple projects from concept to completion.
8. Liaise closely with stakeholders across the business to understand their insight and data visualisation needs, focusing on root causes, broader opportunities, and areas of focus for high performance.
9. Collaborate with business owners, subject matter experts and go-to-market teams to deploy methodology into an automated data science environment, and interact with the global academic and business community to develop new techniques.
10. Serve as a subject matter expert to others seeking to utilise data science methodologies to automate and streamline existing manual business processes.
11. Reflect TAFE NSW's values in the way you work and abide by policies and procedures to ensure a safe, healthy and inclusive work environment.
12. Place the customer at the centre of all decision making.
13. Work with the Line Manager to develop and review meaningful performance management and development plans.

4. KEY CHALLENGES

- Balancing operational demands given the need to manage resource development whilst also delivering on day to day priorities.
- Interpreting and synthesizing large amounts of information and data into representations that effectively model accurate and actionable insights.
- Developing and implementing innovative approaches to resource development and providing recommendations regarding data collection, analysis and insights generation processes.
- Accessing project team members with appropriate and relevant technical skills.
- Ensuring technical knowledge and expertise is maintained and continually improved to ensure relevance and suitability to support product development in a dynamic environment.

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5. KEY RELATIONSHIPS

WHO	WHY
Internal	
Learning Analytics Manager	• Receive leadership, direction and advice. • Regular information exchange and to proactively provide advice regarding service innovation and delivery.
Insights and Innovation Teams	• Collaborate to developing advanced analytical approaches to evaluating next generation learning technologies. • Collaborate on introducing innovative data-science and machine learning technologies to improve interactive presentations of learning materials. • Manage internal relationships and competing priorities.
Product Development Teams	• Engage in collaborative research and development of cutting-edge online learning products.
Skills Excellence Networks	• Collaborate on innovative approaches to learning and teaching resource development delivery.
Data Services Team, Systems Group	• Collaborate on developing data science processes, policies, procedures and frameworks.
External	
Relevant industry bodies and sources of information	• Ensure up to date knowledge is maintained and accessible.

6. POSITION DIMENSIONS

Reporting Line: Learning Analytics Manager

Direct Reports: Nil
Indirect Reports: Nil

Financial delegation: TBA
Budget/Expenditure: TBA

Decision Making:

- Makes decisions on complex and sensitive issues that are based on professional judgment, evaluating risks and in the context of a complex and changing environment.
- Matters requiring a higher level of approval are referred to the Reporting Line Manager.

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7. ESSENTIAL REQUIREMENTS

1. Degree qualification in related field or equivalent significant experience.
2. Strong problem-solving skills with an emphasis on real-world product development.
3. Knowledge of a variety of advanced statistical and machine learning techniques and their real-world advantages and disadvantages, and a drive to learn and master new technologies and techniques.
4. Experience using statistical computer languages (Python, R, Julia, etc.) to manipulate data and draw insights from large datasets, with a particular focus on visualising/presenting insights to stakeholders.
5. Ability to address and meet focus capabilities as stated in the Position Description.

8. CAPABILITIES

NSW Public Sector Capability Framework

Below is the full list of capabilities and the level required for this role as per the NSW Public Sector Capability Framework. The capabilities **in bold** are the focus capabilities for this role. Refer to the next section for further information about the focus capabilities.

Capability levels are as follows and reflect a progressive increase in complexity and skill:

Foundational **>** Intermediate **>** Adept **>** Advanced **>** Highly Advanced

CAPABILITY GROUP	NAME	LEVEL
Personal Attributes	**Display Resilience & Courage**	**Adept**
	Act with Integrity	Intermediate
	Manage Self	Adept
	Value Diversity and Inclusion	Intermediate
Relationships	**Communicate Effectively**	**Advanced**
	Commit to Customer Service	Intermediate
	Work Collaboratively	**Adept**
	Influence and Negotiate	Adept
Results	Deliver Results	Adept
	Plan And Prioritise	Adept
	Think and Solve Problems	**Adept**
	Demonstrate Accountability	Adept
Business Enablers	Finance	Intermediate
	Technology	**Advanced**
	Procurement and Contract Management	Intermediate
	Project Management	**Adept**

FOCUS CAPABILITIES

The focus capabilities for the Product Data Scientist 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 position's key accountabilities.

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NSW Public Sector Focus Capabilities

NSW Public Sector Capability Framework		
Group and Capability	**Level**	**Behavioural Indicators**
Personal Attributes Display Resilience and Courage	Adept	• Be flexible, show initiative and respond quickly when situations change. • Give frank and honest feedback and advice. • Listen when ideas are challenged, seek to understand the nature of the comment and respond appropriately. • Raise and work through challenging issues and seek alternatives. • Remain composed and calm under pressure and in challenging situations.
Relationships Communicate Effectively	Advanced	• Present with credibility, engage diverse audiences and test levels of understanding • Translate technical and complex information clearly and concisely for diverse audiences • Create opportunities for others to contribute to discussion and debate • Contribute to and promote information sharing across the organisation • Manage complex communications that involve understanding and responding to multiple and divergent viewpoints • Explore creative ways to engage diverse audiences and communicate information • Adjust style and approach to optimise outcomes • Write fluently and persuasively in plain English and in a range of styles and formats.
Relationships Work Collaboratively	Adept	• Encourage a culture that recognises the value of collaboration. • Build cooperation and overcome barriers to information sharing and communication across teams and units. • Share lessons learned across teams and units. • Identify opportunities to leverage the strengths of others to solve issues and develop better processes and approaches to work. • Actively use collaboration tools, including digital technologies, to engage diverse audiences in solving problems and improving services.
Results Think and Solve Problems	Adept	• Research and apply critical-thinking techniques in analysing information, identify interrelationships and make recommendations based on relevant evidence. • Anticipate, identify and address issues and potential problems that may have an impact on organisational objectives and the user experience. • Apply creative-thinking techniques to generate new ideas and options to address issues and improve the user experience. • Seek contributions and ideas from people with diverse backgrounds and experience. • Participate in and contribute to team or unit initiatives to resolve common issues or barriers to effectiveness. • Identify and share business process improvements to enhance effectiveness.

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NSW Public Sector Capability Framework

Group and Capability	Level	Behavioural Indicators
Business Enablers Technology	Advanced	• Champion the use of innovative technologies in the workplace. • Actively manage risk to ensure compliance with cyber security and acceptable use of technology policies. • Keep up to date with emerging technologies and technology trends to understand how their application can support business outcomes. • Seek advice from appropriate subject-matter experts on using technologies to achieve business strategies and outcomes. • Actively manage risk of breaches to appropriate records, information and knowledge management systems, protocols and policies.
Business Enablers Project Management	Adept	• Understand all components of the project management process, including the need to consider change management to realise business benefits. • Prepare clear project proposals and accurate estimates of required costs and resources. • Establish performance outcomes and measures for key project goals, and define monitoring, reporting and communication requirements. • Identify and evaluate risks associated with the project and develop mitigation strategies. • Identify and consult stakeholders to inform the project strategy. • Communicate the project's objectives and its expected benefits. • Monitor the completion of project milestones against goals and take necessary action. • Evaluate progress and identify improvements to inform future projects.

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