



**Australian  
National  
University**

## Position Description

<b>College/Division:</b>	National Computational Infrastructure (NCI)
<b>Faculty/School/Centre:</b>	National Computational Infrastructure (NCI)
<b>Department/Unit:</b>	
<b>Position Title:</b>	Data Informatics Specialist
<b>Classification:</b>	ANU Officer Grade 8 (IT)
<b>Position No:</b>	
<b>Responsible to:</b>	Associate Director (Research Engagement and Initiatives), NCI
<b>Number of positions that report to this role:</b>	
<b>Delegation(s) Assigned:</b>	

### PURPOSE STATEMENT:

The position of Data Informatics Specialist arises through substantial growth in data services and dataset management offered by NCI - the role of which is to effectively manage and make available collections of large datasets and, in doing so, to expand considerably the availability of research data of national and international significance to enhance both research opportunities and outcomes. The Data Informatics Specialist will play a substantive role in the: (a) ingest into the NCI data repository and the federated information of datasets (b) ensure that collections are appropriately provisioned with metadata to ensure discoverability and effective use by the research community; and (c) provision of effective monitoring, reporting and management of collections to ensure a robust and secure service that is valued by researchers and their organisations. The incumbent will work with user communities to assist in the ingestion, transfer and metadata provisioning of data collections, and in the management, monitoring and reporting of the collections and their use by research communities.

### KEY ACCOUNTABILITY AREAS:

#### Position Dimension & Relationships:

The position of Data Informatics Specialist will report to the NCI Data Collections Manager, and is under the portfolio of the Associate Director (Research Engagement and Initiatives). In undertaking their work, the incumbent will work/liase with other members of the NCI Team within the Research Engagement and Initiatives portfolio.

#### Role Statement:

Under the direction of NCI Data Collections Manager, the incumbent will:

1. Gather and assimilate technical requirements from data repository systems, particularly for metadata management organisation that integrates closely with big data and search APIs so as to support research communities.
2. Play a key role to identify, develop, configure, integrate approaches and support the (a) the deposition of data into the repository; (b) ingestion and management of the metadata required for discovery, search and access of data, including, as appropriate, and working to interoperate with NCI partners and federation with major international services, with regard to the use of, and migration to, appropriate metadata standards and frameworks.
3. Play a lead role in data and metadata access to: (a) integrate data ingestion into catalogue and metadata workflows and provenance, and national and international federations, (b) provide secure API access for compute, data analysis and visualisation resources; (c) test and optimise metadata ingest (from data files), management and access services; (d) monitor the storage and collection usage; and (e) undertake stress testing of ingest, management and access functions, to ensure secure and robust operations.
4. Document installations, configurations and tools developed.
5. Contribute substantively to the development of processes and procedures that will advance collections management services at NCI, and, as appropriate, work with staff in comparable or related roles at partner organisations, and at other data catalogue discovery nodes to ensure coordination and interoperability of services.

6. Comply with all ANU policies and procedures, and in particular those relating to health and safety, and equal opportunity.
7. 7. Other duties, as appropriate to this classification, and as directed.

### SELECTION CRITERIA:

1. A degree with extensive relevant experience or an equivalent combination of experience and education/training. Postgraduate qualifications (or progress towards such a qualification) would be well regarded.
2. Experience in large-scale data management and its use in high performance analytics, access and serving, including (a) metadata access and harvesting (e.g., OGC, CS/W, opensearch), discovery (e.g., GeoNetwork, DOI/PID), and designing search API technologies to local high performance databases to support community needs (e.g., Astronomy, Climate/Weather, Genomics, Geophysics), (b) metadata standards for catalogues and informatics and file level (e.g., HDF/NetCDF), (c) experience in high performance and secure database schema design and implementation, and (d) cloud and filesystem storage technologies to manage performant large databases.
3. Demonstrated experience in: software design principles; quality user interface design and performance, opensource database technology (e.g., postgres) web technologies and techniques; program languages (including C and python); both using and managing code repository systems (preferably git). Experience in puppet continuous deployment software would be an advantage.
4. Demonstrated high-level oral and written communication skills, and the capacity to engage and communicate effectively with peers and end-users of the service.
5. Capacity to work both as a self-starter, and effectively within a team (both local and distributed nationally), to deliver effective outcomes.
6. 6. Demonstrated understanding of equal opportunity principles, and a commitment to the application of EO policies in a University context.

<b>Supervisor/Delegate Signature:</b>	Professor Sean Smith	<b>Date:</b>	
Printed Name:		<b>Uni ID:</b>	

### References:

[General Staff Classification Descriptors](#)

[Academic Minimum Standards](#)



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# Pre-Employment Work Environment Report

## Position Details

<b>College/Div/Centre</b>	National Computational Infrastructure (NCI)	<b>Dept/School/Section</b>	
<b>Position Title</b>	Data Informatics Specialist	<b>Classification</b>	ANU Officer 8 (Information Technology)
<b>Position No.</b>		<b>Reference No.</b>	

In accordance with the Occupational Health and Safety Act 1991 the University has a duty of care to provide a safe workplace for all staff.

- This form must be completed by the supervisor of the advertised position and forwarded with the job requisition to Appointments and Promotions Branch, Human Resources Division. Without this form jobs cannot be advertised.
- This form is used to advise potential applicants of work environment issues prior to application.
- Once an applicant has been selected for the position consideration should be given to their inclusion on the University's Health Surveillance Program where appropriate – see [http://info.anu.edu.au/hr/OHS/\\_\\_\\_Health\\_Surveillance\\_Program/index.asp](http://info.anu.edu.au/hr/OHS/___Health_Surveillance_Program/index.asp) Enrolment on relevant OHS training courses should also be arranged – see [http://info.anu.edu.au/hr/Training\\_and\\_Development/OHS\\_Training/index.asp](http://info.anu.edu.au/hr/Training_and_Development/OHS_Training/index.asp)
- 'Regular' hazards identified below must be listed as 'Essential' in the Selection Criteria - see 'Employment Medical Procedures' at [http://info.anu.edu.au/Policies/\\_DHR/Procedures/Employment\\_Medical\\_Procedures.asp](http://info.anu.edu.au/Policies/_DHR/Procedures/Employment_Medical_Procedures.asp)

## Potential Hazards

- Please indicate whether the duties associated with appointment will result in exposure to any of the following potential hazards, either as a **regular** or **occasional** part of the duties.

TASK	regular	occasional	TASK	regular	occasional
key boarding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	laboratory work	<input type="checkbox"/>	<input type="checkbox"/>
lifting, manual handling	<input type="checkbox"/>	<input checked="" type="checkbox"/>	work at heights	<input type="checkbox"/>	<input type="checkbox"/>
repetitive manual tasks	<input type="checkbox"/>	<input type="checkbox"/>	work in confined spaces	<input type="checkbox"/>	<input type="checkbox"/>
catering / food preparation	<input type="checkbox"/>	<input type="checkbox"/>	noise / vibration	<input type="checkbox"/>	<input type="checkbox"/>
fieldwork & travel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	electricity	<input type="checkbox"/>	<input type="checkbox"/>
driving a vehicle	<input type="checkbox"/>	<input type="checkbox"/>			
<b>NON-IONIZING RADIATION</b>			<b>IONIZING RADIATION</b>		
solar	<input type="checkbox"/>	<input type="checkbox"/>	gamma, x-rays	<input type="checkbox"/>	<input type="checkbox"/>
ultraviolet	<input type="checkbox"/>	<input type="checkbox"/>	beta particles	<input type="checkbox"/>	<input type="checkbox"/>
infra red	<input type="checkbox"/>	<input type="checkbox"/>	nuclear particles	<input type="checkbox"/>	<input type="checkbox"/>
laser	<input type="checkbox"/>	<input type="checkbox"/>			
radio frequency	<input type="checkbox"/>	<input type="checkbox"/>			
<b>CHEMICALS</b>			<b>BIOLOGICAL MATERIALS</b>		
hazardous substances	<input type="checkbox"/>	<input type="checkbox"/>	microbiological materials	<input type="checkbox"/>	<input type="checkbox"/>
allergens	<input type="checkbox"/>	<input type="checkbox"/>	potential biological allergens	<input type="checkbox"/>	<input type="checkbox"/>
cytotoxics	<input type="checkbox"/>	<input type="checkbox"/>	laboratory animals or insects	<input type="checkbox"/>	<input type="checkbox"/>
mutagens/teratogens/ carcinogens	<input type="checkbox"/>	<input type="checkbox"/>	clinical specimens, including blood	<input type="checkbox"/>	<input type="checkbox"/>
pesticides / herbicides	<input type="checkbox"/>	<input type="checkbox"/>	genetically-manipulated specimens	<input type="checkbox"/>	<input type="checkbox"/>
			immunisations	<input type="checkbox"/>	<input type="checkbox"/>
<b>OTHER POTENTIAL HAZARDS (please specify):</b>					

<b>Supervisor's Signature:</b>	Ben Evans	<b>Print Name:</b>		<b>Date:</b>	
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