



Position Description

College/Division:	National Computational Infrastructure (NCI)
Faculty/School/Centre:	National Computational Infrastructure (NCI)
Department/Unit:	National Computational Infrastructure (NCI)
Position Title:	Staff Scientist – Generalist
Classification:	ANU Officer 7 (Information Technology)
Position No:	
Responsible to:	Manager, User Services (NCI)
Number of positions that report to this role:	
Delegation(s) Assigned:	

PURPOSE STATEMENT:

NCI is Australia's leading national provider of high-end computational and data-intensive services, with a highly respected reputation for its services, expertise and innovation. It forms an integral part of the Australia Government's research infrastructure strategy, and is engaged with, and embedded in research communities, high-impact research centres, and research institutions nationally. NCI is an operating unit of the Australian National University and is built on and sustained by a formal collaboration of national research organisations, ANU, CSIRO, Bureau of Meteorology, Geoscience Australia, other research-intensive universities, and eResearch support organisations nationally.

NCI's high-performance computing systems include a petascale supercomputer (Gadi); a high performance Open OnDemand data-intensive compute cloud; high speed storage including large parallel Lustre filesystems and deep storage systems.

NCI is seeking an experienced computational scientist, computer scientist or software engineer to support growing requirements in user services and training at the forefront of high-performance computing, including contributions to the development, implementation and support of highly-scaling codes and workflows for use on NCI HPC systems.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The position of Staff Scientist reports to the Manager, User Services. The incumbent will have demonstrated experience in one or more fields of computational science and/or scientific software engineering, and will work closely with NCI users and project groups, and other groups within NCI to develop, optimise and support scientific workflows on NCI systems.

The position is based around generalist responsibilities for user support, software configuration and maintenance, technical documentation, development of user training content, and limited administrative duties in support of the NCI User Services group mission. The incumbent may also advise and mentor junior user support staff.

Role Statement:

Under the broad direction of the Manager, NCI User Services, perform the following duties:

- Provide high-quality support, from basic to advanced levels, to users of NCI services and facilities with a focus on experienced users in one or more field of computational science. The incumbent will also proactively participate in additional core areas, with approved short-term work plans, to improve NCI operational support. This work may include implementation or enhancement of parallel processing algorithms, or other performance-enhancing improvements, for existing projects. It will also include scientific community project support in areas prioritised by NCI.

- Liaise with user communities and other NCI staff to modify and manage specialist user community software and systems hosted on NCI facilities and services.
- Contribute to development of specialised training courses, technical documentation and online materials for the NCI user community.
- Liaise with and assist other staff of NCI on the support of integrated services and workflows that span the facility and other interoperable resources.
- Keep abreast of developments in scientific software, workflows, and computational science best practices, and general advances in high-performance computing.
- Comply with all ANU Policies and procedures, and in particular those relating to work health and safety and equal opportunity.
- Other duties appropriate to the classification, as directed.

SELECTION CRITERIA:

1. A degree, with extensive relevant experience, or a postgraduate degree and demonstrated experience or an equivalent combination of education, training and experience, which demonstrate an ability to succeed in the role.
2. Demonstrated experience in computational science, software engineering or high-performance computing. Experience in one or more of the following areas is highly desirable: development of scientific application codes, parallel programming using MPI or OpenMP, performance measurement and profiling of HPC applications, scientific application debugging, or algorithms for high-performance numeric computation.
3. Demonstrated expertise in, or willingness and potential to learn, modern computational science workflows in high-performance computing environments. Key aspects of this criterion include design and implementation of processing pipelines, methods for highly scalable processing, workflow orchestration and management, and management of source data and computational products.
4. Experience in Linux systems administration, including basic networking, user account administration and software installation is highly desirable.
5. Experience with at least one compiled programming language such as C, C++ or Fortran is essential. A sound working knowledge of at least one scripting language, such as Python, is also essential. Familiarity with the Linux operating system and Linux/GNU pre-packaged environments is essential.
6. Demonstrated high-level oral and written communication skills, including a proven ability to communicate professionally and effectively with colleagues and stakeholders, write high quality reports and presentation materials, and present workshops and seminars. Experience delivering technical or scientific training is highly desirable.
7. Demonstrated ability to work within a team and to adapt to changes as infrastructure and service requirements evolve, including a demonstrated capacity for innovative problem solving.
8. An understanding of equal opportunity principles and a commitment to the application of EO policies in a university context.

The ANU conducts background checks on potential employees, and employment in this position is conditional on satisfactory results in accordance with the [Background Checking Procedure](#) which sets out the types of checks required by each type of position.

Supervisor/Delegate Signature:		Date:	
Printed Name:		Uni ID:	

References:

[Professional Staff Classification Descriptors](#)

[Academic Minimum Standards](#)