# Position Details

## Technical Services- CSOF6

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| The following information is for applicants | |
| Advertised Job Title | Technical Leader - Science Applications |
| Job Reference | 70124 |
| Tenure | Indefinite  Full-time |
| Salary Range | AU$113,338 to AU$132,811 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Canberra ACT, Clayton VIC or Eveleigh NSW preferred. Other locations may be considered. |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian Citizens Only |
| Position reports to the | Research Software Engineering Team Lead, Scientific Computing Services |
| Client Focus – Internal | 90% |
| Client Focus – External | 10% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact: [daniel.collins@csiro.au](mailto:daniel.collins@csiro.au) |
| How to apply | Apply online at <https://jobs.csiro.au/>  Internal applicants please apply via **Jobs Central**  If you experience difficulties when applying, please email [careers.online@csiro.au](mailto:careers.online@csiro.au) or call 1300 984 220. |

### Role Overview

The role of Technical Staff in CSIRO’s Information Management & Technology (IMT) is to provide support for scientific research in a diverse range of laboratory and field situations across a range of research projects. This support consists of the application of accepted technical practices and the development of new practices. The work is usually carried out as a member of a centralised service. At senior levels staff may be involved in management of a facility or service and negotiations with external clients/industry.

IMT’s Scientific Computing provides CSIRO scientists access to dedicated end-to-end high-performance storage, computing, and network infrastructure, as well as advanced research services. The Scientific Computing teams support a range of systems from corporate IT systems through to world-class High-Performance data storage and processing.  In addition, the Scientific Computing Services teams deliver expertise in data analytics and visualisation, research software engineering, modelling and dataflows, and technical solutions. The capability is highly customer focussed and operates in close partnership with all areas of CSIRO research.

As a Science Applications Technical Leader, within the Scientific Computing Services group, you will help define and advance our High Performance Computing (HPC) capabilities’ strategic direction in alignment with organisational wide initiatives such as Managed Data Ecosystem (MDE), CSIRO Missions, Future Science Platforms (FSPs) and IMT’s strategic plans.

You will be responsible for growing and fostering a community of practice around high-performance computing applications, building relationships with other technical leaders outside of CSIRO, shaping the upskilling of CSIRO staff through the Digital Academy and potentially contributing to relevant journals and conferences.

You will also provide specialised HPC and other accelerated computing applications expertise. Researchers increasingly rely on High Performance Computing for all aspects of the scientific process.

### Duties and Key Result Areas:

* Define and advance the Scientific Computing Services HPC Applications capability, and ensure our strategic direction is aligned with organisational initiatives such as the Managed Data Ecosystem, Missions, Future Science Platforms, and IMT’s strategic plans.
* Building a community of practice, developing relationships with other technical leaders outside of CSIRO, shaping the upskilling of CSIRO staff through the Digital Academy and potentially contributing to relevant journals and conferences.
* Applying HPC and other accelerated computing techniques and tools in aid of CSIRO’s scientific research.
* Provide expert advice and consultancy within the field of high-performance and scientific computing applications.
* Provide high performance computing applications expertise as part of the SC team. Activities are expected to cover both computer and data storage systems, and may include:
  + Design, implementation, and performance analysis of HPC applications and workflows.
  + Parallelization and optimisation of selected applications and workflows.
  + Data management, visualisation, application publication.
  + Cloud computing, virtualisation, containerisation.
  + Problem solving at a high level for applications and workflows.
* Provide user support services as part of a team for the SC and partner systems. Work activities are expected to include:
  + Delivering against researcher needs.
  + Effective request tracking and response to user support issues.
  + Documentation, including the development and maintenance of locally written user guides for scientific computing.
* Contribute to knowledge sharing within the team by documenting procedures and be able to liaise effectively with users regarding the delivery of services to meet their needs. Work may be required at other CSIRO sites within Australia.
* Communicate effectively and respectfully with all staff, clients, and suppliers in the interests of good business practice, collaboration, and enhancement of CSIRO’s reputation.
* Work collaboratively with colleagues within your team, the business unit and across CSIRO, to reach objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **Required Competencies:**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious, proposals/ideas.
* **Resource Management/Leadership:** Provides leadership that fosters an environment that encourages new ideas and provides support for the development of emerging skills. Creates trust by displaying consistency, understanding, integrity and patience. Plans, seeks, allocates and monitors resources to achieve outcomes.
* **Judgement and Problem Solving:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Demonstrates flexibility in thinking and adapts to and manages the increasing rate of organisational change by adjusting strategies, goals and priorities.

## **Selection Criteria**

**Essential Criteria:**

1. Masters or PhD degree (or BSc plus equivalent post-graduate experience) in computer science, data science, mathematics, physics, or equivalent.
2. Significant experience in the application of parallel and high-performance computing (for example, OpenMP and MPI) as well as accelerated computing (such as GPU or FPGA) programming for complex modelling, analysis for large scale systems.
3. Experience as a technical leader in the support and development of large-scale high-performance applications, processing pipelines, and workflows.
4. Ability to foster a community of practice including – for example - development of training programs, conference presentations, seminar series, ongoing interactions with technical leaders in other organisations.
5. Demonstrated experience working with researchers, assessing their needs, and providing appropriate software-based solutions.

**Desirable Criteria:**

1. Experience contributing to high-level strategic plans, for example through the development of technology roadmaps or uptake of key technologies at an organisational level.
2. Contribution to relevant technical standards, journal publications and/or open source software.
3. Experience with cloud platforms such as AWS, Azure or GCP.
4. Mentoring experience with other staff or students.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

Include if relevant:

* The successful candidate will be required to obtain and maintain a security clearance at the Negative Vetting 1 level.

## **About CSIRO:**

We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/)!

CSIRO is a values-based organisation. We expect our employees to demonstrate behaviours aligned to our values of:

• People First

• Further Together

• Making it Real

• Trusted