# Position Details

## Technical Services- CSOF6

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| The following information is for applicants | |
| Advertised Job Title | Senior Supercomputing Application Specialist |
| Job Reference | 70560 |
| Tenure | Indefinite  Full-time |
| Salary Range | AU $113,338 to AU $132,811 per annum plus up to 15.4% superannuation |
| Location(s) | Pawsey Centre - Kensington, Western Australia |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Head of Scientific Services |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 1-3 |
| Enquire about this job | Contact Dr Maciej Cytowski via email at [maciej.cytowski@csiro.au](mailto:maciej.cytowski@csiro.au) or phone: +61 8 6436 8873  P*lease do not email your application directly to Dr Maciej Cytowski. Applications received via this method will not be considered.* |
| 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 Pawsey Supercomputing Centre is a tier-1 high-performance computing facility accelerating scientific discoveries for Australia’s researchers. Located in Perth, Western Australia, Pawsey is currently serving scientists across the nation in domains such as radio astronomy, energy and resources, engineering, bioinformatics and health sciences. Pawsey supports Australia's commitment to the Square Kilometre Array (SKA) and Australian pathfinder projects (ASKAP and MWA).

The Centre is managed through a long-standing and successful unincorporated joint venture of the CSIRO, Curtin University, Edith Cowan University, Murdoch University and The University of Western Australia, and supported by funding from the Western Australian and Federal governments.

The Pawsey Supercomputing Centre has recently announced its new supercomputer as part of the biggest upgrade to the Pawsey computing infrastructure since the centre opened in 2009. The new supercomputer will deliver up to 50 petaFLOPs, or 30 times more compute power than its predecessor systems Magnus and Galaxy, to help power the future high-impact Australian research projects. The upgrade of the Pawsey’s computing infrastructure will also include the deployment of large-scale object storage for scientific data. Pawsey is also involved in multiple future technology evaluation projects including quantum computing.

<https://pawsey.org.au/about-us/capital-refresh/>

As a member of the Scientific Services group at the Pawsey Supercomputing Centre, the Senior Supercomputing Application Specialist will lead, develop, and manage several technical programs within the Supercomputing Applications team. The role will work with staff across all Pawsey partners, and with researchers at both partner and other research institutions. In addition, the Senior Supercomputing Applications Specialist will be required to engage in various external collaborations with other national and international supercomputing centres, system vendors, and academic and research institutions. A technical aptitude, strong interpersonal skills and a desire to learn are essential to support the researchers and to grow with technology.

This role will be proactive in identifying opportunities and developing solutions to ensure optimal use of Pawsey supercomputing resources. The role will be crucial in defining and building new supercomputing services for the next-generation Pawsey’s infrastructure.

### Duties and Key Result Areas:

* Provide technical leadership, mentoring and co-ordination for the Supercomputing Applications team.
* Provide specialist advice and software enhancement to research groups, drawing on extensive expert knowledge and experience to enable their utilisation at scale of significant supercomputing resources at Pawsey.
* Evangelise Pawsey services to key stakeholders including research groups, government, industry, and external organisations.
* Facilitate uptake of Pawsey supercomputing services through development and presentation of material based on expert technical knowledge and project outcomes.
* Identify technical areas of researcher knowledge for improvement and develop appropriate training material and documentation.
* Coordinate evaluations of novel technologies to inform the procurement of significant supercomputing infrastructure.
* Project manage application processes for allocations of Pawsey supercomputing time and Pawsey team consulting services.
* Liaise with users and their communities/representatives regarding delivery of Pawsey services to meet their requirements.
* Communicate openly, 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 as part of a multi-disciplinary, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, 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

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. A tertiary qualification in a mathematical, scientific or computer-science discipline, or relevant experience.
2. Extensive experience in parallel and high-performance computing (including programming models like OpenMP and MPI) as well as accelerated computing (including models for programming GPUs).
3. Demonstrated technical leadership in the support and development of large-scale supercomputing applications and workflows.
4. Demonstrated success in managing projects.
5. Excellent verbal and written communication skills, and ability to use these skills to engage effectively with colleagues and clients.
6. Demonstrated ability to work with independence and self-motivation within a team environment.
7. Demonstrated ability & willingness to contribute novel ideas and approaches in support of scientific investigations.

## **Desirable:**

1. A PhD or higher qualification in a mathematical, scientific or computer-science discipline
2. Domain expertise in one or more computational science disciplines.
3. Demonstrated leadership of groups of technical professionals.
4. Experience with Machine Learning, AI and/or Data Science.

Special Requirements

The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.

The successful candidate must be willing and able to travel interstate and internationally as required and be available to work after office hours from time to time.

## **About CSIRO:**

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

Find out more about the [Pawsey Supercomputing Centre](https://pawsey.org.au/)

Find out more about CSIRO [Scientific Computing](https://www.csiro.au/en/Research/Technology/Scientific-computing)