# Position Details

## Technical Services- CSOF6

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| The following information is for applicants | |
| Advertised Job Title | Senior Data Scientist |
| Job Reference | 70422 |
| 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 | Data Services Team Lead |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Dr Sean Fleming via email at [sean.fleming@csiro.au](mailto:sean.fleming@csiro.au) or phone: +61 8 6436 8918  P*lease do not email your application directly to Dr Sean Fleming. 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 Data Scientist will be responsible for engaging with multi-disciplinary researchers to facilitate and optimise Data Analytics workflows using Pawsey's compute and storage facilities. The Senior Data Scientist will provide input to strategy for future planning as well as liaising with external stakeholders to promote the use of Pawsey facilities. The role will be crucial in defining and building new services for the next-generation Pawsey’s infrastructure as well as supporting AI and Machine Learning workloads at extreme scale. The role will require effective communication with targeted research groups from a broad range of disciplines. A technical aptitude, strong interpersonal skills and a desire to learn are essential to support the researchers and to grow with technology.

### Duties and Key Result Areas:

* Provide key input into strategic planning for Pawsey Data Analytics services.
* Work with a team to ensure the effective operation of Pawsey's Data Analytics services.
* Develop and maintain excellent relationships with stakeholders in the research community; promoting Pawsey services and capabilities.
* Work within a multi-stakeholder environment to develop solutions and carry out tasks independently and with self-motivation in support of scientific research.
* Engage with other providers of research data services around Australia and internationally to seek collaborative opportunities.
* Develop and maintain excellent internal relationships, including mentoring of junior staff.
* Lead and contribute to delivering outcomes in data projects involving the use of Pawsey for machine learning and analytics on large data sets.
* Work with researchers to advise and assist in the best practice use of Pawsey facilities for data analysis, workflows, and visualisation.
* Maintain knowledge in advances and emerging trends in data analytics in the international research community.
* Contribute to knowledge sharing in the Pawsey uptake working group.
* Participate and contribute to relevant training in the use of Pawsey facilities and services.
* 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. Relevant postgraduate degree or equivalent experience in a STEM field.
2. Demonstrated knowledge in the mathematical principles behind Data Science (statistics, calculus, linear algebra).
3. Demonstrated experience in applied Data Science within one or more research domains.
4. Demonstrated experience with machine learning tools and programming languages such as Python, C++, R.
5. Demonstrated experience in handling large and/or complex data sets.
6. Demonstrated track record of leading and contributing to data projects, providing strategic input, and collaborating within a research environment.
7. Demonstrated track record of developing and delivering technical training.

## **Desirable:**

1. Demonstrated expertise in the support, development and optimisation of supercomputing applications.
2. Experience with Big Data frameworks such as Hadoop or Spark.
3. Experience with data visualisation tools and techniques.
4. Experience in the management of data, including: metadata schemas and structured data formats.

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)

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

* 1. People First
  2. Further Together
  3. Making it Real
  4. Trusted