# Position Details

## Research Projects- CSOF5

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| The following information is for applicants | |
| Advertised Job Title | Software Engineer – Workflows |
| Job Reference | 99077 |
| Tenure | Specified Term of 2 years, Full-time |
| Salary Range | AU$114,219.00 - AU$123,605.00 per annum (pro-rata for part-time)  plus up to 15.4% superannuation |
| Location(s) | Kensington (Perth) Western Australia, or Marsfield (Sydney) NSW |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian Citizens and Permanent Residents, New Zealand (in Australia onshore already) Citizens, or Australian (onshore) Temporary Residents with full work-rights for the duration of the proposed term (visa sponsorship will not be provided) |
| Position reports to the | Calibration and Imaging (CALIM) Team Leader |
| Client Focus – Internal | 90% |
| Client Focus – External | 10% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Stephen Ord – Stephen.Ord@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. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

**Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

### Role Overview

As a Software Engineer – Workflows, you will play a crucial role in implementing and maintaining our science data processing pipeline solutions. The ideal candidate is an expert python programmer with experience in scientific workflow solutions running in a high-performance computing environment. You would be adept at integrating multi-component distributed solutions.

You will collaborate with cross-functional teams and science teams to explore and facilitate orchestration of data management, processing and archiving.

### Duties and Key Result Areas

* **Workflow analysis, design, implementation:**
  + Analyse, design, implement, and maintain robust solutions for HPC data reduction pipeline workflows.
  + Work closely with development teams to optimize build and deploy workflows.
* **Monitoring and optimisation:**
  + Implement monitoring of workflow performance and error conditions.
  + Apply continuous improvement practices to workflow to optimise data throughput.
* **Collaboration:**
  + Collaborate with development, QA, science and operations teams to facilitate a DevOps culture.
  + Provide expertise and support in resolving complex technical issues.
  + Work closely with the Pawsey Supercomputing Centre to establish best practice test framework deployment in the HPC environment.
* **Documentation:**
  + Create and maintain comprehensive documentation for our scientific workflows, processes, and best practices.
  + Assist in the training of team members on our scientific workflow solutions.

## **Selection Criteria**

**Essential:**

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

* A Bachelor’s or Master’s degree relevant to software engineering/computer science, or equivalent work experience.
* Proficiency in Python
* Experience deploying and operating applications in Linux environments.

**Desirable:**

* Experience in High Performance Computing (HPC) or cloud computing environments.
* Experience with pipeline workflows such as Prefect
* Experience with processing distribution technologies such as Dask and/or MPI.
* Interest in astronomy.

**Not sure if you meet all the criteria?**

While it is CSIRO policy that the successful candidate must meet all the essential criteria, there are many ways to demonstrate this. Don’t let the list discourage you. If you are unsure about applying, please reach out to the contact person in the Position Description.

## **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 team as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others’ reactions.
* **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **Adaptability:**Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

Special Requirements

Appointment to this role is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

* The successful candidate will undertake a pre-employment background check. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test).- https://ielts.com.au/

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [CSIRO Space and Astronomy](https://www.csiro.au/en/Research/Astronomy).

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* People First
* Further Together
* Making it Real
* Trusted