# Position Details

## Research Projects- CSOF3

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| The following information is for applicants | |
| Advertised Job Title | Junior Scientific Software Engineer |
| Job Reference | 78614 |
| Tenure | Indefinite  Full-time |
| Salary Range | AU$66k to AU$84k pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Brisbane (Dutton Park) QLD; other locations by negotiation |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Position reports to the | Research Team Leader |
| Client Focus – Internal | 70% |
| Client Focus – External | 30% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Matt Stenson via email at matthew.stenson@csiro.au or phone +61 7 3833 5590 |
| 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 Research Projects staff in CSIRO is to collaborate in scientific and technological activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work.

Environmental sciences are increasingly being asked to answer questions on the state of our natural assets at a continental scale, over long time periods, at increasing spatial and temporal resolutions to support predictive modelling efforts such as the National Environmental Prediction System. Being able to engage, lead and develop these solutions is vital to CSIRO’s aspiration to drive greater impacts by integrating large-scale research efforts and the datasets they generate.

The new Junior Scientific Software Engineer position will be part of the Information Infrastructure Application team in the CSIRO Land and Water Business Unit. The role will help build capacity in the emerging area of processing, publishing, and displaying very large continental scale earth observation-based data products and environmental/hydrologic model outputs through the development of novel code and technical solutions. This position will help build the capacity in data processing pipelines, model access, publications tools and workflows using cutting edge cloud-based infrastructure and modelling techniques such as Machine Learning.

### Duties and Key Result Areas

* Undertake and complete tasks under technical direction, working with discretion to decide on the timing of operations within the work team’s plan and planning ahead to meet project demands.
* Under technical direction undertake software development activities (some non-routine) using a range of technologies such as Python, Docker and Javascript, often working on several parallel and competing tasks.
* Design new software tools, technologies, and processing workflows by adapting existing libraries and technologies to meet special circumstances or undertake modifications to existing tools requiring some innovation.
* Respond courteously and efficiently to client requests, maintaining clear communication regarding mutual expectations and monitoring client satisfaction.
* Present results, project outcomes and deliver software demonstrations to colleagues and internal and external stakeholders.
* Maintain confidentiality when working with commercially sensitive information.
* 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, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Required Competencies**

* **Teamwork and Collaboration:** Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.
* **Influence and Communication:** Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids, which will assist in conveying meaning.
* **Resource Management/Leadership:** Provides instruction and assists other staff to complete allocated tasks and activities.
* **Judgement and Problem Solving:** Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:**Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

## **Selection Criteria**

#### Essential

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

1. Relevant bachelor’s degree or equivalent relevant work experience in software engineering, computer science or software development.
2. Demonstrated experience in Python development.
3. A familiarisation with containerisation (e.g. Docker).
4. Some experience with Frontend and Backend Webdev:
   1. Frontend e.g. VueJs, React, JQuery
   2. Backend e.g. Flask, Django, FastAPI, Express
5. Some experience with Cloud technologies (e.g. AWS/Azure/Google).
6. Demonstrated experience with Source Code Management (Git) and familiarisation with DevOps (CI/CD, pipelines).
7. Good oral and written communication skills including the ability to communicate outcomes to stakeholders.
8. The ability to work effectively as part of a multi-disciplinary, regionally dispersed research Program, and carry out tasks under general direction from Scientific Researchers.

## **Desirable**

1. An understanding of Machine Learning concepts.
2. Experience with REST APIs (including Swagger or OpenAPI).

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.

* 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.

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

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

Find out more about CSIRO [Land and Water](https://www.csiro.au/en/Research/LWF)