# Position Details

## Research Projects- CSOF4/CSOF5

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| The following information is for applicants |
| Advertised Job Title | Research Projects Officer – Software Engineer |
| Job Reference | 93676  |
| Tenure | IndefiniteFull-time |
| Salary Range | CSOF Level 4: AU$93,267 - AU$105,517 per annum (pro-rata for part-time) plus up to 15.4% superannuationCSOF Level 5: AU$110,038 - AU$119,080 per annum (pro-rata for part-time) plus up to 15.4% superannuation*\*NB: This position is offered across two levels, the appointment level will be determined by the qualifications, skills and relevant experience of the successful candidate* |
| Location(s) | Brisbane or Hobart preferred, or other CSIRO locations is negotiable |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian and New Zealand citizens
* Australian Permanent Residents
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| Position reports to the | Coastal Informatics Team Leader, CSIRO Environment |
| Client Focus – Internal | 30% |
| Client Focus – External | 70% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Emlyn Jones via email at emlyn.jones@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 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

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. At senior levels, Research Projects staff may be involved in providing consulting services, science management and/or industry liaison.

As a part of the Marine Systems Modelling and Informatics research group, this role will contribute to the design, development, and delivery of user interfaces for web applications that make our model predictions and sensor data available and accessible to the world.

You will be part of a team of software engineers and scientists who work together on scientific modelling platforms backed by high-performance compute, visualisations to support analysis of very large research datasets, and on interactive decision support tools designed to support environmental management decisions.

You will be expected to collaborate with other software engineers and with researchers from many other fields, to engage with end-users and other project stakeholders, and to support the integration, deployment, and maintenance of new and legacy software applications.

### Duties and Key Result Areas

* Design, develop and adapt software, web applications and user interfaces and UI/UX systems, requiring high levels of initiative, ingenuity, and skills (some of which are outside a single discipline).
* Maintain and administer research and operational linux systems required by MSMI project teams.
* Lead small teams and/or collaborate with staff from other teams in meeting project objectives.
* Initiate and maintain collaborative relationships with external researchers and experts, and transfer technology to industry.
* Liaise with clients to determine their needs and take personal responsibility for client satisfaction.
* Participate in project scoping and planning, making significant contributions to the research or technological direction, and may advise on the level and type of services that are provided.
* Have a significant role in communicating research or technological results in internal and external forums (including addressing user enquiries) and, where applicable, contribute to and/or generate products used in decision support systems.
* 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 and diversity initiatives.
* Other duties as directed.

**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 a related field.
2. Experience in linux server administration concepts, including server scripting languages, security model and process management.
3. Experience with source code management tools and version control strategies, including working collaboratively in a team environment.
4. Experience in scientific programming languages (e.g. C/C++, Python, R, Matlab etc).
5. Knowledge of and ideally experience in containerised deployment patterns (e.g. Docker in Docker-Compose, Swarm-Mode and/or Kubernetes).
6. Knowledge of workflow tools (eg. Nextflow/Snakemake) and their use in software automation.

## **Desirable**

* Experience in web application design, development, deployment and administration.
* Knowledge of web application security concepts, including authentication and authorisation, as well as experience implementing robust security measures in real-world projects.
* Experience creating user and developer documentation and/or training materials for your applications.
* Knowledge of geospatial information system concepts, including coordinate systems, data services (eg. WMS/WFS), visualisation and mapping libraries.
* Experience with cloud services (e.g. Amazon Web Services, Microsoft Azure, Google Cloud).
* Experience with automated integration, testing and deployment pipelines.

## **Required Competencies at CSOF4:**

* **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:** 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:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **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:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **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.

## **Required Competencies at CSOF5:**

* **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.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and the [Environment Business Unit](https://www.csiro.au/en/about/people/business-units/Environment) page and the [Coastal and Ocean Research](https://research.csiro.au/cor/) web pages for more information.

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