# Position Details

## Research Projects- CSOF6

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| The following information is for applicants |
| Advertised Job Title | Senior Research Software Engineer |
| Job Reference | 80881 |
| Tenure | IndefiniteThis role is offered on a full-time or part-time (minimum 0.8 FTE) basis |
| Salary Range | AU$117,917 to AU$138,176 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Negotiable - Newcastle, NSW preferred  |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Group leader, Engineering & Development |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | tbc |
| Enquire about this job | Contact John Ward at John.K.Ward@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. |

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### 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 and technology management and/or industry liaison.

CSIRO Energy is playing a key role in Australia’s energy transition. We are pioneering low-emission technologies that create value for industry and households and provide the research that will inform decision makers and help guide Australia towards a smart, secure energy future.

The Senior Research Software Engineer role will be responsible for leading the delivery of research software development activities in within the CSIRO Energy Systems program. This will include managing and leading improvements to the software development cycle, including ensuring appropriate versioning, commenting, documentation and testing.

The role will work with internal and external stakeholders to scope research software projects, develop implementation pathways and lead implementation activities.

This role is offered on a full-time or part-time (minimum 0.8 FTE) basis.

### Duties and Key Result Areas

* Lead the design and development of research software projects, including development of internal capability for technology trials at scale, particularly with distribution network operators.
* Work closely with stakeholders to establish their software requirements and meet their scientific goals.
* Setting clear expectations around data quality to all stakeholders, particularly in the early stages of projects with large & complex datasets.
* Deploy, maintain, and support applications, web services, and cloud development platforms in support of scientific projects
* Ensure the software development cycle is managed carefully, including appropriate commenting and documentation, and particularly field testing for projects which require interfacing with equipment in the field.
* ​Work with program leadership and the development team on a ​strategy for continuous improvement in the quality of software deliverables.
* Provide coaching, on-the-job training and instruction to colleagues, on activities pertaining to software development to ensure upskilling of staff.
* Participate in developing the strategic direction of research software engineering at CSIRO
* Under general direction participate in planning major projects including allocating and directing tasks, managing resources to meet project objectives in a timely manner.
* Maintain confidentiality when dealing 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:** 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:** 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:** 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:** 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. Degree in software engineering / computer science or equivalent industry experience
2. Demonstrated experience ​designing, developing and deploying large, complex software systems
3. Experience with best practice software development methodologies and tools including source control (Git), test-driven development, continuous integration, continuous deployment
4. Evidence of use of industry standard software processes for code quality, change management and data science model delivery, deployment and ongoing maintenance, preferably including experience with .Net, C and Python.
5. Demonstrated experience in mentoring, project leadership and/or technical leadership.

## **Desirable**

1. Experience with agile software development concepts and practices
2. Experience developing software for scientific programming (preferably Python and/or Julia)
3. Experience with scientific computing platforms such as HPC and cloud systems
4. Participation in open-source community software development
5. Experience working in the electricity systems sector.

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.
* 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/)

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

Find out more about CSIRO [Energy](https://www.csiro.au/en/Research/EF)