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# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants |
| Advertised Job Title | Senior Data Scientist/Solutions Architect  |
| Job Reference | 88046 |
| Tenure |  Specified Term of 3 years  |
| Salary Range | AU$117,917 to AU$138,176 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Brisbane, Queensland |
| 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 | Team leader Bushfire Analytics |
| Client Focus – Internal | 30% |
| Client Focus – External | 70% |
| Number of Direct Reports | 0 |
| Enquire about this job | Raphaele.Blanchi@csiro.au or phone +61 395458194 |
| 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. |

### Role Overview

CSIRO is the national science agency that researches to make life better for Australia and Australians.

We seek a highly motivated data scientist, solutions architect and emerging science leader in the bushfire domain to support the delivery of a large complex suite of projects, the National Bushfire Intelligence Capability (NBIC). NBIC’s focus is to develop a nationally consistent bushfire hazard and risk framework to deliver best-practice data products, services and decision support relevant for state, territory and federal bushfire planning and response agencies across all stages of the disaster lifecycle.

The role includes building our technical and information systems design capability to deliver decision-ready data at the National scale. In particular, the position requires skills in designing and implementing novel solutions that will help scale our national hazards research from state-based single-user systems to national-scale multi-stakeholder information platforms. This will involve managing and coordinating a large project team of software and platform developers and engagement with a complex set of state, federal and commercial end-users.

You will have a track record in demonstrating a considerable degree of originality, creativity and innovation in solving problems and introducing new directions and approaches.

You will join the Bushfire Analytics team within CSIRO’s Land and Water (L&W) business unit, where information and technologies required by government, industry and the Australian and international communities are provided to protect, restore, and manage natural and built environments.

The Bushfire Analytics team is primarily based in Melbourne and Brisbane, and you will interact with other teams within CSIRO who are geographically dispersed throughout Australia. You will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue novel ideas and solutions.

The advertised position will primarily focus on the requirements of the NBIC suite of projects. Still, it may also support other activities at the Group, Program and Business Unit level or elsewhere in CSIRO as required.

### Duties and Key Result Areas:

* High-level stakeholder engagement and management skills and a demonstrated capacity to turn end-user requirements into digital solutions that can be readily integrated into client systems and decision-making processes.
* Understanding of bushfire behaviour and impact on communities, built assets and the environment.
* A desire and capacity to build a community of practice in cloud platform technology to help address a growing need for development, maintenance and effective use of cloud-based science platforms within L&W and more broadly across CSIRO.
* Leadership and resource management in the implementation of spatial information systems and their integration into end-user operations.
* Experience in the design and development of scalable spatial information platforms, including utilisation of parallel and distributed computing resources, including commercial cloud platforms (AWS, GCP and/or Azure).
* Integration of complex science workflows into scalable digital platforms. This will include an ability to work with a range of programming languages such as R, Python, C++ and the effective and collaborative management of these codes using version control systems such as Azure DevOps, BitBucket and GitHub.
* Lead or contribute to scientific projects, including the written and oral communication of results and their implications.
	+ Lead and supervise staff, manage project level finances and identify and resolve issues as they arise, to ensure that projects are established in accordance with the research design and are completed within the agreed timeframes and budget.
	+ Provide advice to policy makers and inform and transfer knowledge to non-scientific audiences.
	+ Undertake feasibility studies, demonstrating a considerable degree of originality, creativity and innovation in solving problems and introducing new directions and approaches.
	+ Adhere to the spirit and practice of CSIRO’s Code of Conduct, including ethical human research and privacy requirements, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
1. 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:** 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, goal and priorities.

## **Selection Criteria**

To allow assessment of your application, please address each selection criteria explicitly with a paragraph or more, demonstrating the relevance of your research experiences and achievements.

#### Essential

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

1. A BSc and significant subsequent research and industry experience in a relevant discipline area, such as environmental science or a closely related field.
2. Demonstrated experience in implementing and using modelling approaches that report on environmental processes. Technical capability in computer programming or scripting languages for automating complex science workflows or processing large data sets.
3. Experience in the design and development of scalable spatial information platforms, including utilisation of parallel and distributed computing resources, including commercial cloud platforms (AWS, GCP and/or Azure)
4. A strong science innovation, creativity and delivery record, including the ability and willingness to incorporate novel ideas and approaches into scientific investigations.
5. Established knowledge and understanding of bushfire processes, risk analysis and mitigation.
6. Demonstrated high-level oral communication abilities, interpersonal skills and capacity for perseverance, including a track record of working constructively with colleagues, collaborators and clients and the ability to remain productive, positive and resilient in complex, ambiguous and/or uncertain environments.

## **Desirable:**

1. Experience in remote sensing and spatial analysis, e.g. leveraging spatial and temporal information
2. A willingness to engage with community in developing code (enable other people) with a range of programming languages (e.g., Python, R) and collaborative software development (e.g., Azure DevOps, BitBucket and GitHub).
3. Experience in working with data and analyses associated with aspects of climate change and/or biodiversity, ideally in the bushfire field.

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.

Include if relevant:

* 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.

## **About CSIRO:**

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