**POSITION DESCRIPTION**

**Research Projects – CSOF5/6**

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| Advertised job title | Senior Front End Developer |
| Job reference | 72824 |
| Tenure | Indefinite, full-time |
| Salary range | Salary level CSOF5 - AU$98k to AU$106k per annum, plus up to 15.4% superannuation Salary level CSOF6 - AU$113k to AU$132k per annum, plus up to 15.4% superannuation |
| Location(s) | Dutton Park (Brisbane) Queensland (Canberra and Sydney may be considered) |
| Relocation assistance | Will be provided to the successful candidates if required |
| Applications are open to | Australian Citizens and Permanent Residents, and New Zealand Citizens currently residing in Australia |
| Position reports to the | Group Leader, Domain Engineering |
| Client focus - Internal | 50% |
| Client focus - External | 50% |
| Number of direct reports | 0 |
| **Enquire about this job** | Roger Butler (Hiring Manager) – [Roger.Butler@csiro.au](mailto:Roger.Butler@csiro.au)  Melissa Sunteo (General Enquiries) - [Melissa.Sunteo@csiro.au](mailto:Melissa.Sunteo@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. |

## Role Overview:

## The Front End Developer designs, develops, deploys and maintains web applications. These applications are prototypes and products that make economic, environmental and societal impact through digital delivery of CSIRO’s research and technology.

The Front End Developer works in a multidisciplinary team comprising scientists, engineers, UX designers and product managers, to develop impactful technology in a range of domains. The team’s roadmap includes:

* AgTech: delivering technology that improves the value of Australia’s agricultural output
* RegTech: using codified law to streamline regulation and compliance
* Energy optimisation: combining building models with IoT sensor streams to optimise energy usage in buildings
* Climate risk: modelling financial risk of climate scenarios

## Duties and Key Result Areas:

* Design, develop, deploy and maintain web applications (typically TypeScript and ReactJS).
* Work collaboratively with project team members and others across CSIRO to ensure that project goals and CSIRO’s goals are achieved.
* Make optimal use of appropriate software development tools and processes for coding efficiency and for ensuring software quality, accessibility, maintainability and reusability.
* Contribute to CSIRO’s engineering discipline by promoting the effective use of software development tools, practices and culture.
* Apply specialist expertise to identify and solve complex problems across a diverse range of projects and disciplines.
* Communicate openly, effectively and respectfully within and across teams, and with key stakeholders, in the interests of good business practice, collaboration and the reputation of both CSIRO and Data61.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

**For appointment at the higher salary level (CSOF6), duties will also include:**

* Review and guide software architecture and development by outsourced and junior software engineers.

## Selection Criteria:

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

1. A relevant diploma/bachelor’s degree, or equivalent work experience in software engineering.
2. Proven expertise developing and deploying cloud software.
3. Proven expertise in web front end development, including HTML, CSS, JavaScript and single-page app frameworks.
4. Demonstrated experience with contemporary software development tools and practises: version control, unit testing, automated testing, issue tracking.
5. A minimum of 3 years of commercial software development experience.
6. Sound interpersonal skills as evidenced by the ability to work effectively and collaboratively within and across teams.
7. Good judgement as applied to the identification and successful resolution of complex (technical and non-technical) problems and issues.

**Additional essential criteria for CSOF6 appointment:**

1. Deep expertise developing and deploying cloud software
2. Experience mentoring junior software developers.
3. A minimum of 5 years of commercial software development experience.

## Desirable Criteria:

The successful candidate will enjoy developing web front ends and may also have expertise in these technologies:

1. Varied programming language paradigms, including object oriented and functional.
2. Cloud DevOps and container technologies (we deploy mostly to AWS ECS).
3. Design and use of REST APIs.
4. Reactive programming.
5. Relational, NoSQL, time series and spatial databases.
6. Message queues (Kafka, Kinesis, MQTT, RabbitMQ).
7. Databases (SQL and NoSQL, time-series, administration, performance tuning, schema design and modelling, stored procedures, triggers, clustering, query design and evaluation).
8. Continuous integration/continuous deployment (Jenkins, Gitlab, Buildkite).
9. Agile project management.

## Competencies:

1. **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.**
2. **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.**
3. **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.
4. **Judgement and Problem Solving: (CSOF5)** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.

**(CSOF6)** 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.

1. **Independence: (CSOF5) 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.**

**(CSOF6)** 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.

1. **Adaptability: (CSOF5)** 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.

**(CSOF6)** Demonstrates flexibility in thinking and adapts to and manages the increasing rate of organisational change by adjusting strategies, goals and priorities.

**Special Requirements**

The successful candidate will be asked to obtain and provide evidence of a National Police Clearance or equivalent. 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/) for more information.

Find out more about CSIRO’s [Data61](https://www.data61.csiro.au/).

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