# Position Details

## Research Projects- CSOF6

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| The following information is for applicants |
| Advertised Job Title | Systems Engineer |
| Job Reference | 81858 |
| Tenure | Indefinite |
| Salary Range | AU$121,455 - AU$142,321 per annum (pro-rata for part-time)plus up to 15.4% superannuation |
| Location(s) | Negotiable and will consider all locations where CSIRO has a significant presence |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents |
| Position reports to the | Research Manager |
| Client Focus – Internal | 80% |
| Client Focus – External | 20% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Max Ott via email at Max.Ott@data61.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).

### Role Overview

### We are developing a cloud native analytics and data fabric platform based on open-source cloud-native systems & AI components to dramatically upscale our research across many different science domains, such as oceans, atmosphere, land, water, agriculture, materials, in short, all the large, and exciting scientific problems CSIRO is working on.

### We are a small team working closely with our researchers to find the best solutions to allow them to quickly move from a research prototype to a repeatable, reliable and scalable service to be used by the wider community while at the same time striving to continuously improve a platform to better serve our emerging opportunities.

### We are looking for highly flexible developers familiar with cloud native technologies and comfortable building new, as well as extending existing capabilities. Our preferred language for the core components is Go, but we are also developing SDKs in Python and R, the preferred language of our scientists. We work with most cloud vendors, but our platform will also need to work in the field with intermittent network connectivity.

### Duties and Key Result Areas

* Design, develop and maintain cloud-native components for diverse analytics workflows.
* Participate in the design, development and maintenance of SDKs supporting service providers and users of the platform.
* Produce high quality engineering artefacts (e.g., design, patents, code, and demos) suitable for deployment in real-world 24/7 environments.
* Build elegant, efficient and readable code.
* Work collaboratively and honestly with internal and external colleagues, clients and partners.
* Maintaining high ethical and performance standards.
* Adhering to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **Selection Criteria**

## Essential Criteria:

* Experience writing cloud native software (preferrable in Go, but experience with other systems languages like C, C++, or Rust and a willingness to learn Go is acceptable as well)
* Experience deploying and managing software in a cloud environment, such as AWS, GCP, or Azure.
* Working knowledge of databases such as; SQL, Postgres, BigTable, etc.
* Experience with git version control and CI/CD systems
* The ability to work both independently and as part of a team, taking initiative and exercising sound judgement in resolving matters to achieve desired results.

## Desirable Criteria:

* Experience with configuration management or infrastructure as code tools, such as, Terraform, or CloudFormation
* Scripting language experience – one or more of Shell/BASH, Python, JavaScript
* Experience with data analytics libraries, such as Pandas/Python or R.
* Experience with agile methodologies
* Experience or knowledge of cyber security concepts and best practices

## **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.

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 Clearance or equivalent. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* To be eligible for this position you must be willing and able to travel occasionally.
* *If you have any queries regarding finalising the Duties and Key Result Areas or the Special Requirements for this position, please consult with In-business HR or the Talent Acquisition Team.*

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [Data61](https://www.csiro.au/en/about/people/business-units/Data61) 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