# Position Details

## Technical Services- CSOF6

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| The following information is for applicants | |
| Advertised Job Title | AquaWatch Data Analytics Platform Engineer |
| Job Reference | 75637 |
| Tenure | Specified term of 3 years, full-time or part-time (minimum 0.8 FTE) |
| Salary Range | AU$115k – AU$135k per annum, plus up to 15.4% superannuation |
| Location(s) | Canberra, ACT, Perth, WA or Brisbane, QLD |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian Citizens Only |
| Position reports to the | Earth Analytics Science Innovation Project Leader for work direction and will be line managed by the AquaWatch Mission Lead |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Robert Woodcock via email at Robert.Woodcock@csiro.au or phone +61 412 298 696 |
| 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 Data Analytics Platform Engineer works with other remote sensing and sensor analytics science specialists in CSIRO and externally, to design visualisation and multi-sensor data integration and software implementation of scientific algorithms for the AquaWatch data analysis system. The Software/Platform Engineer provides design ideas and guidance on implementing and operationalising science-derived data analysis algorithms, and updating the system as new technologies emerge to enhance scalability and cost-efficiency. The position sits within the AquaWatch Technical Implementation team, that will design and build a cloud-based, multi-sensor data integration and visualisation system to support the AquaWatch Mission.

The AquaWatch Data Analysis platform will leverage off the CSIRO Earth Analytics Science Innovation (EASI) implementation of the OpenDataCube platform, which in the case of EASI uses Kubernetes, AWS Cloud and advanced python libraries, will perform combined global satellite Earth observation and on-ground instrument data analysis, machine learning and modelling. The EASI Platform underpinning this system is an advanced system working at the leading edge of Cloud and Earth analytics technologies.

### Duties and Key Result Areas:

* Work collaboratively with the EASI Project team in CSIRO and our partners at UQ/SmartSAT CRC to continuously improve the end-user experience, stability and security of the system.
* Technically contribute to the design and implementation of the CI/CD strategy for the team.
* Design, develop and continually improve a full Infrastructure as Code pipeline for the automated delivery of cloud resources.
* Develop centralised monitoring and reporting solutions for security, network, resource utilisations, application performance and billing requirements.
* Troubleshoot including hosting-related debugging and performance bottleneck investigation, cost issues, assist with system growth and resource planning.
* Proactively manage system security, build and rollout in-depth embedded security, and participate in security assessments and auditing.
* Contribute to the development of the group’s service standards, procedures and service improvements.
* Build and foster a professional and friendly relationship with business owners, stakeholders and end users.
* Coordinate and produce relevant systems documentation.
* Coordinate and participate in service restoration including disaster recovery activities as required.
* Keep management and other team members informed of progress and issues.
* Complete assigned support tasks as specified by due dates.
* 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 team to carry out tasks in support of AquaWatch partnership objectives.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. Demonstrated experience in development of scalable cloud solutions using AWS.
2. A tertiary qualification in computer science, software engineering or vendor certification in a relevant technical subject such as solution architect and software developer.
3. Strong interpersonal skills with a proven collaborative approach to both internal and external relationships.
4. Demonstrated experience designing, deploying, and maintaining Cloud infrastructure using Terraform Enterprise and Hashicorp Vault.
5. Strong experience in automation and implementing CI/CD pipelines using Azure Devops and/or GitHub.
6. Strong experience with container technologies and demonstrated administration skills in deploying and managing Kubernetes.
7. Strong programming skills across Python, Terraform HCL, and Docker.

## **Desirable:**

1. Demonstrated experience with designing and deploying complex RBAC frameworks across AWS, Hashicorp Vault Terraform and Kubernetes.
2. Background in working with research and engineering to provide solutions and software development support especially in Earth Analytics and Machine Learning.

## **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:** Provides leadership that fosters an environment that encourages new ideas and provides support for the development of emerging skills. Creates trust by displaying consistency, understanding, integrity and patience. Plans, seeks, allocates and monitors resources to achieve outcomes.
* **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

The successful candidate will be required to obtain and maintain a security clearance at the Negative Vetting level 1.

## **About CSIRO:**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [CSIRO Astronomy and Space Science](https://www.csiro.au/en/Research/Astronomy) 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