# Position Details

## Research Projects – CSOF5

The following information is for applicants

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| Advertised Job Title**:** | Software Engineer |
| Job Reference: | 60745 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Percentage of Client Focus - Internal: | 50% |
| Percentage of Client Focus - External: | 50% |
| Reports to the: | Team Leader - Cyber Physical Data |
| Number of Direct Reports: | 0 |
| Name and Contact Details For Applicant Enquiries: | Chris Sharman: [chris.sharman@csiro.au](mailto:chris.sharman@csiro.au)  *Please do not email your application directly to Chris Sharman. Applications received via this method may not be considered by the selection panel.* |
| Contact Details For Applying: | Call 1300 984 220 or email [careers.online@csiro.au](mailto:careers.online@csiro.au). |
| How to Apply: | Please apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number**.** Internal applicants please apply via ‘Jobs Central’ in SAP (click ‘Recruitment’) |

## Role Overview

CSIRO’s Data61’s Cyber Physical Data team have an immediate need for an experienced, creative and adaptable Software Engineer to build elegant solutions for unsolved problems, take ownership of their area, and to learn and further develop their skills. The Software Engineer will work in an open, collaborative environment with a culture of trust and individual empowerment.

As a member of the Cyber Physical Data team, the Software Engineer will work on the Senaps data platform and applications thereof for our clients inside and outside CSIRO. This will primarily include working on projects in collaboration with the Agriculture and Food business unit, and specifically the Digiscape Future Science Platform.

The Cyber Physical Data Team is part of the Distributed Sensing Systems Research Group in CSIRO’s Data61. Working with the broader Cyber Physical Systems Program you will develop close relationships with researchers from our group and across CSIRO as a whole.

We develop software from early research stage through to operational production systems. The Senaps platform and its applications are focused on near real-time spatio-temporal data management, analytics and related decision support tools. These tools aim to change the way our clients work and ultimately have a positive impact for Australia.

The Software Engineer will join a small multi-disciplinary engineering team with diverse skills and experiences.

Occasional interstate travel will be required.

## Duties and Key Result Areas:

Work with a high level of independence to:

* Become a core developer for the Senaps data platform and help us add cool new features, UI design and development, fix bugs, and much more.
* Communicate and collaborate with our customers to develop applications on the Senaps data platform.
* Contribute to the strategic direction of the Senaps platform and the broader team.
* Help develop, maintain and operate the systems developed by the Cyber Physical Data Team.
* Take responsibility of delivering software features.
* Work with customers to understand their needs and make sure they are met.
* Make use of appropriate software development tools and processes for coding efficiency and for ensuring software quality, maintainability and reusability.
* Engage with individuals and teams throughout CSIRO in order to find new opportunities to collaborate, transfer skills, and initiate new projects.
* Experiment with technologies, evaluate them and present the results.
* Collaborate effectively with engineering, research, UI/UX and business teams.
* Contribute to CSIRO’s data and software discipline by encouraging and improving the use of software development tools, practices and culture.
* Maintain high ethical and performance standards.
* Adhere 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.

## Essential Criteria:

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

1. A relevant Certificate or tertiary qualification (such as Computer Science or Software Engineering), and/or equivalent experience.
2. Excellent teamwork and communication skills.
3. Advanced skills in object oriented programming and design patterns.
4. Demonstrated capability working with modern web development frameworks.
5. Excellent software development practices including but not limited to version control, testing, requirements analysis.
6. Demonstrated ability to adapt and learn new technical and non-technical skills.
7. Demonstrated ability to lead the development of significant areas independently.
8. Demonstrated ability to work effectively as part of a multi-disciplinary, regionally dispersed teams, and carry out tasks autonomously.

## Desirable Criteria:

1. Strong expertise and experience in the Java language and in particular Java based backend services and frameworks.
2. Strong expertise and experience in one of more of Python, R, JavaScript, TypeScript and shell scripting.
3. Experience working with time series data, and specifically near real-time sensor data.
4. Experience working with geospatial data, and in particular netCDF.
5. Experience writing technical documentation, delivering technical training and user support.
6. Experience working in a research environment and in particular working in agricultural science or a related domain.
7. Experience developing scientific workflows with any tool.
8. Experience using Docker and container orchestration services.
9. Experience with DevOps practices and Systems Administration.
10. Experience with Agile project management methodologies (Scrum, Kanban, XP, or similar)
11. Experience with Linux/UNIX and working on the command line.

## About CSIRO:

At CSIRO we solve the greatest challenges through innovative science and technology. See more [online](http://www.csiro.au/)!

## Special Requirements:

Appointment to this role may be subject to conditions including security/national police/medical/character clearance requirements. Applicants who are not Australian Citizens or Permanent Residents 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/>

Appointment to this role will require interstate travel for short periods of time.

## About Australia and Hobart:

Australia is a stable, democratic and culturally diverse nation with a highly skilled workforce and one of the strongest performing economies in the world. With a spectacular natural environment, high quality of life and great diversity Australia is a sought after destination. Find out more About Australia.

Hobart is Tasmania’s capital city and is located at the entrance to the Derwent River. It offers a blend of heritage, scenery and culture with world class activities and attractions. Renowned for its high quality food including its seafood it has many unique features ranging from old growth forests to world heritage areas and MONA a modern art experience. There is an active sporting community in various sports including football, cricket and rowing.