# Position Details

*Software Engineer*

# Research Projects – CSOF4

The following information is for applicants

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| Advertised Job Title**:** | Software Engineer |
| Job Reference: | 61552 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | Australian/New Zealand Citizens and Australian Permanent Residents Only*For Specified Term positions, we will accept applications from candidates with full working rights for the length of the term, who do not require sponsorship.* |
| Percentage of Client Focus - Internal: | 100% |
| Percentage of Client Focus - External: | 0% |
| Reports to the: | Team Leader – Graph Platform Team |
| Number of Direct Reports: | 0 |
| Name and Contact Details for Applicant Enquiries: | Tim Pitman, email: Tim.Pitman@data61.csiro.au*Please do not email your application directly to Tim Pitman. Applications received via this method will not be considered.* |
| Contact Details for Applying: | Call 1300 984 220 or email 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’ through the ‘People Hub’ icon  |

## Role Overview:

The role of Research Projects staff in CSIRO is to collaborate in scientific activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental and observational work, and in carrying out the more practical aspects of the work. At senior levels, Research Projects staff may be involved in providing consulting services, science management and/or industry liaison.

The Software Engineer will develop new technologies for data integration and graph analytics with real impact for Australia. The Engineer will be creative and be able to design and build large scale machine learning systems and write elegant, usable software at scale. The position will also require effective collaboration with research, engineering and business teams across Data61 to ensure that project goals and Data61’s goals are achieved.

## Duties and Key Result Areas:

* Design and develop software for data integration and machine learning on large scale graphs
* Experiment with new technologies and communicate the results
* Build elegant, efficient and readable code with Scala and Apache Spark
* Create distributed systems for data science at scale
* Collaborate effectively with research, engineering and business teams across Data61 to ensure that project goals and Data61’s goals are achieved.
* Maintain high ethical and performance standards
* Communicate effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation
* 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.

## CSIRO 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: Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.**
4. **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
5. **Independence: Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).**
6. **Adaptability:** 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.

## Selection Criteria:

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

* A relevant tertiary qualification in a scientific or engineering discipline such as Computer Science and/or equivalent commercial experience in software engineering
* Demonstrated ability to solve problems and implement engineering solutions
* Experience writing software in Scala
* Previous experience developing distributed applications with Apache Spark or Flink
* Ability to think creatively, to work collaboratively and to perform tasks under minimal supervision.

## Desirable Criteria:

* Experience with data storage systems and distributed databases
* Strong understanding of graphs and network technologies
* Experience applying machine learning to solve engineering problems

## About CSIRO:

We imagine. We collaborate. We innovate. To find out more visit us [online](http://www.csiro.au/)!

Find out more about [Data61](http://www.data61.csiro.au/)