# Position Description

## Research Projects – CSOF3

The following information is for applicants

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| Advertised Job Title**:** | Research Projects Officer |
| Job Reference: | 61201 |
| 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: | 0% |
| Percentage of Client Focus - External: | 100% |
| Reports to the: | Research Group Leader, Distributed Systems Security, CSIRO Data61 |
| Number of Direct Reports: | 0 |
| Name and Contact Details For Applicant Enquiries | Raj Gaire via email: [Raj.Gaire@data61.csiro.au](mailto:Raj.Gaire@data61.csiro.au)  *Please do not email your application directly to Raj Gaire. Applications received via this method will not be considered.* |
| 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’ through the ‘People Hub’ icon |

## Role Overview:

Data61 is Australia’s data innovation leader, which currently partners with 33 universities in Australia and more than 90 corporate and 30 government structures in order to create Australia’s data-driven future. We are seeking a skilled and enthusiastic software engineer to fill a key role in its Distributed Systems Security (DSS) group, who will mainly contribute to the design, development and delivery of security software platforms and applications in supporting the group’s R&D.

This Software Engineer will help shape the effectiveness of the cyber security of critical infrastructure in Australia through applied research and development. The Software Engineer will work closely with the research, industry and government participants in DATA61’s Research in Distributed Systems Security. As a part of the team, the Software Engineer work in projects of both national and international significance, produce innovative software and solutions and create high impact around the country and the world.

## Duties and Key Result Areas:

* Develop distributed systems software applications.
* Develop software requirements based on communication with clients and users.
* Work with researchers and software engineers to design, develop and deliver quality software.
* Write technical and user documentations.
* Help maintain the group’s internal wiki and external website.
* Respond courteously and efficiently to client requests, maintaining clear communication regarding mutual expectations and monitoring client satisfaction.
* Undertake and complete tasks under technical direction, working with discretion to decide on the timing of operations within the work team’s plan and planning ahead to meet experiment and/or project demands.
* Under technical direction undertake experiments, laboratory analyses or technology development activities (some non-routine) using a range of techniques, often working on a number of parallel and competing tasks.
* Design new processes or apparatus by adapting existing techniques and components to meet special circumstances or undertake modifications to methods requiring some innovation.
* 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, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO’s scientific objectives.
* 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.

## Competencies:

1. **Teamwork and Collaboration: Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.**
2. **Influence and Communication: Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids, which will assist in conveying meaning.**
3. **Resource Management/Leadership: Provides instruction and assists other staff to complete allocated tasks and activities.**
4. **Judgement and Problem Solving:** Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
5. **Independence: Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).**
6. **Adaptability:** Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

## Selection Criteria:

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

* Tertiary qualification in Science, Engineering, Computer Science, Information Technology, other relevant field, or equivalent commercial experience in software engineering.
* Solid engineering and software coding skills, with experience in writing scalable, high performance, production quality code.
* Proficiency in a wide range of programming languages such as Python, Java, C/C++, Go or equivalent.
* Proficiency in using RDBMS such as MySQL, PostgreSQL, SQLite.
* Proficiency in developing web based front end applications.
* Knowledge and/or experience of basic security concepts and the corresponding technologies, e.g., Public/Private keys, encryptions/decryption, digital signature/hashing, etc.
* Knowledge and/or experience of cloud solutions/providers e.g. OpenStack, AWS, Azure.

## Desirable Criteria:

* Ability to develop while learning new technologies.
* Experience with software development lifecycle including testing, continuous integration and continuous delivery.
* Experience with Git in a team environment.
* Exposure to containers (e.g. VMs, Docker) for deploying applications.
* Exposure to front end development frameworks especially using node.js, VueJS, AngularJS, ReactJS or equivalent.
* Exposure to automated deployment tools (e.g. Ansible, Kubernetes).
* Experience developing in an agile team environment.
* Knowledge of security tools and protocols.

## About CSIRO:

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

In today’s data-focused world, there’s no doubt that numbers count. [Data61](http://www.data61.csiro.au/) are the largest data innovation group in Australia, a connector that brings together technology innovators, businesses and universities to transform Australian industry and to help solve our greatest challenges. A CSIRO business, we are creating our data-driven future.