 Position Details

Research Engineer- CSOF5

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| **The following information is for applicants** | |
| Advertised Job Title | Research Software Engineer, Software Systems Group |
| Job Reference | 77737 |
| Tenure | Specified Term of 24 months |
| Salary Range | AU$102,724 to AU$111,165 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Brisbane, QLD |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Position reports to the | Team Leader |
| Client Focus – Internal | 80% |
| Client Focus – External | 20% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Nick van Beest via email at nick.vanbeest@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](mailto:careers.online@csiro.au) or call 1300 984 220. |

**Role Overview**

CSIRO’s Data61 is the data and digital specialist arm of Australia’s national science agency. Data61 is at the forefront of digital science and innovation, leading both in developing new applied research and technologies as well as working across disciplines to drive adoption and impact.

The role of Research Software Engineer in CSIRO is to collaborate in scientific and technological activities with other research staff usually by assisting with detailed planning and undertaking experimental software development work. The Research Software Engineer will work closely with leading research scientists and other engineers on a wide range of internal, government and industry projects leading to novel and important scientific and commercial outcomes. They will have the opportunity to build and maintain professional networks, play a lead role in securing and delivering projects, provide technology leadership and pursue new ideas.

The candidate will be based in the Software Systems Research Group working in one or more of the following focus areas:

1. Software engineering frameworks and tools for business process management and AI/ML systems.
2. Application development in Digital services, Digital agriculture and Industry 4.0/5.0.
3. Blockchain applications and distributed systems engineering and prototyping.

**Duties and Key Result Areas**

* Design and implementation of high-quality software (e.g., demonstrator, research prototypes or proof-of-concept, production systems)
* Develop novel techniques to produce enhanced results, providing research scientists with new or improved approaches to research or technological problems.
* Collaborate with research scientists to implement and evaluate the performance of novel algorithms, designs and mechanisms.
* Apply ‘standard’ software engineering practices (Agile methods, versioning, etc) to develop efficient and readable software code in a timely manner.
* Develop and maintain technical documents related to the developed software, such as manuals, reports, tutorials, API references, etc.
* Provide technical coaching and training to colleagues on developed software or specific software technologies, as required.
* Under project leader’s direction, participate in planning projects and accept responsibility for the scheduling and delivery of major parts of projects as per deadlines, including allocating and directing tasks where appropriate.
* Collaborate with internal and external partners to build process-driven digital platforms and to increase awareness of compliance and process optimisation technologies.
* 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 team, and business unit to carry out tasks in support of CSIRO’s scientific objectives.
* Represent CSIRO Data61 and the research group either nationally or internationally in events to deliver technical presentations, tutorials, or demonstrate the software from our research group.
* Make significant contributions to the effective functioning of the research group and help deliver CSIRO Data61’s organisational objectives and plans.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

**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:** 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.
* **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.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **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**

***Pre-Requisites:***

* Tertiary qualification and/or equivalent engineering experience in relevant discipline areas, such as computer science, software systems and engineering, or a closely related field and relevant experience in the area of business process management, AI/ML systems, blockchain or distributed computing.

**Essential**

1. Strong understanding of computing and mathematical concepts.
2. Experience in experimental software development using emerging technologies or latest research outputs (such as new algorithms or designs).
3. Experience in developing software code in a range of languages such as Java, C# or C++.
4. Demonstrated expertise in software engineering and data systems integration.
5. A record of developing scalable, robust, maintainable and secure software applications.
6. Ability to think creatively, take initiatives, prototype original ideas and deliver them through to clients, working to deadlines.
7. A demonstrated ability to collaborate and to perform efficient joint work under minimal supervision, on multi-disciplinary challenges through successful collaborations with researchers from industry and academia.
8. *Oral communication skills with the ability to represent the team effectively internally and externally.*

**Desirable:**

1. A demonstrated ability to work effectively in academic research environments.
2. Knowledge of and experience with business process modelling and execution.
3. Knowledge of AI technology such as automated planning.
4. Full stack skills.
5. Programming experience with at least one distributed ledger platform.

**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 Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they 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/>

*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. To find out more visit us [online](http://www.csiro.au/)!

Find out more about CSIRO [Data61](https://www.csiro.au/en/about/people/business-units/Data61) (<https://www.csiro.au/en/about/people/business-units/Data61>)