# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants | |
| Advertised Job Title | Senior Research Scientist - Cyber Security |
| Job Reference | 81881 |
| Tenure | Indefinite |
| Salary Range | AU$117,917 to AU$ 131,423 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Sydney, NSW |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates |
| Position reports to the | Team Leader |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Surya Nepal via email at surya.nepal@csiro.au or phone +61 2 9372 4256 |
| 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 role of the Senior Research Scientist is to lead both strategic and industry projects, and be at the forefront of novel and world class research, leading to reputed international publications in top tier security conferences like IEEE S&P, ACM CCS, NDSS, Usenix Security, Crypto and Eurocrypt. The researcher will also be able to lead and manage a team of junior researchers in the Distributed Security Systems Group within the Software and Computation Science Program.

As the Senior Research Scientist, you will be expected to lead projects, interact with clients and deliver client projects, supervise PhD students independently within the Data61 scholarship programme and contribute to the development of new research areas and ideas.

Data61 envisions a vibrant and globally competitive Australian cyber security industry with greater resilience to cyber threats in business, to enhance confidence in the digital economy by bringing together exceptional people from research and industry. Data61 is building a network with industries, academic and government communities, both nationally and internationally. Data61 provides a good supporting environment for commercialising research results and building innovation through start-ups and active community engagement. The Senior Research Scientist will have an opportunity to collaborate with Data61 partners within the Australian and international cyber security ecosystem and address the challenging problems in cyber security.

### Duties and Key Result Areas:

* Carry out innovative, impactful cyber security research of strategic importance to CSIRO Data61 that will, where possible, lead to novel and important scientific outcomes.
* Provide leadership in defining new strategic research areas/directions and the development of innovative concepts and ideas for further research.
* Actively lead and participate in strategic and external R&D projects by undertaking project specific research, implementing software, and communicating with internal and external partners.
* Build strategic relationship with Data61 industry and academic partners.
* Work closely with business development group to secure new client projects.
* Interact with clients in a professional manner and deliver client reports on time.
* Attract PhD students and supervise them independently within the Data61 scholarship programme.
* Lead a team of junior researchers.
* Work collaboratively with colleagues within the team, Data61 and across CSIRO.
* Produce high quality scientific and/or engineering papers suitable for publication in quality journals, for client reports and granting of patents.
* Prepare appropriate conference papers and present those at conferences.
* Contribute to the effective functioning of the research team and help deliver CSIRO Data61’s organisational objectives and plans.
* Undertake regular reviews of relevant literature and patents.
* Undertake feasibility studies, demonstrating a considerable degree of originality, creativity and innovation in solving problems and introducing new directions and approaches.
* 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 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:** 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:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **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, goal and priorities.

## **Selection Criteria**

#### Essential

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

1. Education/Qualifications: A PhD in a relevant discipline area, such as security, privacy or a closely related field or significant work experience in the area of cyber security.
2. High level written and oral communication skills demonstrated through publications and collaboration with the ability to represent the research team effectively internally and externally, including at national and international conferences, and a range of different audiences.
3. Demonstrated high level of experience in conducting research activities and prototype development in cyber security, more specifically in the areas of IoT security, post-quantum cryptography, cloud security, and security in new areas like AI security with the techniques on cryptography, applied cryptography, system and protocol design; evidence from the top tier research publications such as IEEE S&P, ACM CCS, NDSS, Usenix Security, Crypto and Eurocrypt.
4. Experience in supervising and mentoring juniors researchers.
5. The ability to lead a team as well as work effectively as part of a research team, plus the motivation and discipline to carry out autonomous research.
6. A record of science innovation and creativity in the area of cyber security, plus the ability and willingness to incorporate novel ideas and approaches into scientific investigations.

## **Desirable:**

1. Experience in supervising PhD students in the area of cyber security.
2. Experience in participation in national and international industry talks, and industry projects in the area of cyber security.

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.

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