Senior Research Scientist – CSOF7

Role summary for potential applicants

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| Advertised Job Title**:** | Principal Research Scientist in Cyber Security |
| Reference Number**:** | 61203 |
| Classification**:** | CSOF7 |
| Salary Range: | AU $136,437 to AU $150,956 plus up to 15.4% superannuation |
| Location**:** | Marsfield - Sydney, NSW |
| Tenure: | Indefinite |
| Relocation assistance**:** | Will be provided to the successful candidate if required |
| Applications are open to: | * All Candidates
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| **Functional Area:** | Research Scientist / Engineer |
| % Client Focus - Internal: | 50% |
| % Client Focus - External: | 50% |
| Reports to the: | Group Leader, Distributed Systems Security |
| Number of Direct Reports: | 3-8 |

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| **Role Overview:** |
| The role of the Principal Senior Research Scientist is to lead a team of researchers and students to 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 define, write, lead and manage both strategic and industry projects in the Distributed Security Systems Group within the Software and Computation Science Program. The Principal Research Scientist, you will be expected to lead projects, interact with clients and deliver client projects, supervise junior researchers, Postdoctoral fellows and PhD students independently within the Data61 scholarship programme and contribute to the development of new research areas and ideas by developing project proposals.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 Principal 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 writing new strategic/client research proposals 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, and communicating with internal and external partners.
* Build strategic relationship with Data61 industry and academic partners.
* Provide a leadership to the team consisting of researchers, engineers and PhD students.
* 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.
* 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.
* 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.
* Undertake an appropriate training and development program developed by CSIRO.
* Other duties as directed.
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| **Selection Criteria:** |
| Competencies: 1. **Teamwork and Collaboration: Creates and fosters an environment in which there is a high level of cooperation within and between teams. Facilitates positive team relationships to build interactions across Business Units and the organisation.**
2. **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.**
3. **Resource Management/Leadership: Provides leadership that fosters an environment that encourages new ideas and provides support for the development of emerging skills. Creates trust by displaying consistency, understanding, integrity and patience. Plans, seeks, allocates and monitors resources to achieve outcomes.**
4. **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.
5. **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.**
6. **Adaptability:** Demonstrates flexibility in thinking and adapts to, and manages, the increasing rate of organisational change by adjusting strategies, goal and priorities.

*Under CSIRO policy only those who meet all essential criteria can be appointed****Pre-Requisite:*** 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*.*

***Essential Criteria:***1. **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**.
2. **Demonstrated high level of experience in conducting research activities in cyber security, more specifically in the area of automating cyber security, building resilience systems, IoT security, applied cryptography and/or cyber security governance and awareness; evidence from the top tier research publications such as** IEEE S&P, ACM CCS, NDSS, Usenix Security, Crypto and Eurocrypt**.**
3. **Experience in supervising and mentoring juniors researchers, developing and delivering high impact research projects.**
4. **The ability to lead a team of researchers as well as work effectively as part of a research team, plus the motivation and discipline to carry out autonomous research.**
5. 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 Criteria:**1. Experience in research management including supervising researchers and 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.

***CSIRO Values:***As Australia’s Innovation Catalyst, CSIRO has strategic actions underpinned by behaviours aligned to Excellent science, Inclusion, trust & respect, Health, safety & environment and Deliver on commitments.  In your application and at interview you will need to demonstrate alignment with these behaviours.***Data61 Values:*****Great Impact**: We focus our valuable resources on areas where we can lead globally and have large impact for Australia, to aid our future prosperity and independence.  **Mastery**: We are fearless, curious and we improve every day. We strive to excel in research, technology and business, and to work with the best in the world.  **Co-Creation of Value**: Everything we do involves co-creation with our network: team, customers and partners. Generously empowering their success is central to our success.  **Ownership of Results**: We jointly hold ourselves accountable for our actions. We do this via trust and commitment. **People and their Differences**: We embrace the creativity that comes from the diversity of our people. **Agility and Flexibility**: We view the changing world as an opportunity. This requires agility and flexibility in everything we do; everything changes, except our constant desire to adapt. **Tell it Straight, with Respect:**We say what we mean, mean what we say, and do not mislead, obfuscate or spin. We're direct and always respectful.**Other special requirements:**Appointment to this role may be subject to conditions including security/medical/character clearance requirements. Applicants who are not Australian Citizens or Permanent Residents may be required to undergo additional security clearance processes; which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test).<https://www.ielts.org/default.aspx> |

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| **Other Information:** |
| **How to Apply**Please apply for this position online at [www.csiro.au/careers](http://www.csiro.au/careers). You will need to upload your cover letter and resume/CV as one document, expressing your interest in the role and broadly addressing your suitability. Please provide sufficient relevant information to enable the selection panel to assess your suitability. Should your application proceeds to the next step, you may be asked to provide additional information.If you experience difficulties applying online call 1300 984 220 and someone will be able to assist you. Outside business hours please email: csiro-careers@csiro.au**Referees**: If you do not already have the names and contact details of two previous supervisors or academic/ professional referees included in your resume/CV please add these before uploading your CV.**Contact:** If after reading the selection documentation you require further information please contact: Dr Surya Nepal via email: Surya.Nepal@csiro.au or phone: +61 2 9372 4256Please do not email your application directly to Dr Nepal. Applications received via this method will not be considered.**AT CSIRO WE INVENT THE FUTURE -** We do this by using science and technology to solve real issues. Our solutions make a difference to industry, people and the planet. As Australia’s national science agency we’ve been pushing the edge of what’s possible for almost 90 years. Today we have thousands of talented people working across Australia and internationally. Our people work closely with industry and communities to leave a lasting legacy. Collectively, our innovation and excellence places us in the top ten applied research agencies in the world. WE COLLABORATE TO INNOVATE.Find out more! [www.csiro.au](http://www.csiro.au).**About Data61:**Data61 is Australia’s digital powerhouse, formed by the recent integration of NICTA and CSIRO’s Digital Productivity business. We bring a multidisciplinary approach with design thinking, creativity, and behavioural economics to solve complex business problems, digital transformation and early stage commercialisation of data-centric solutions.Data61 is a CSIRO entity, Australia’s preeminent scientific organisation. Being part of CSIRO gives us access to deep domain expertise across all of the industry sectors most likely to be disrupted over next 5-20 years. Find out more! <http://www.data61.csiro.au/> Data61 focuses on every aspect of data research and development, from data capture [via sensor technology and robotics] to data consumption; communications and networking; infrastructure; hardware and software; cyber security; data statistics, modelling and analytics; decision sciences; behavioural economics and cognitive sciences—across every major industry sector.**What CSIRO offers you**You will be joining our small, dynamic research team in Sydney and Melbourne which is part of the Software and Computational System Program. We have a strong passion for doing world class science and making a difference by applying it to real world problems across CSIRO business areas and external clients. We have strong connections to other research teams and groups in CSIRO, top Australian research universities, and internationally well recognised researchers in security and privacy. Working in our team will allow you to leverage these connections to widen and strengthen your own professional network.We strongly believe in independence and personal drive. Working in CSIRO Data61 will give you many opportunities to step up and assume responsibility and leadership in research and community activities. At CSIRO we support balance. Let us know how we can make this role flexible for you. |