# Senior Research Scientist/Engineer – CSOF6

Role summary for potential applicants

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| Advertised Job Title**:** | Senior Researcher Computer Vision |
| Reference Number**:** | 46021 |
| Classification**:** | CSOF5 or CSOF6 |
| Salary Range: | CSOF5: AU $95,369 to AU $103,205 plus up to 15.4% superannuation  CSOF6: AU $109,474 to AU $128.282 plus up to 15.4% superannuation |
| Location**:** | Black Mountain, ACT |
| Tenure: | 1 year (may be extended) |
| Relocation assistance**:** | Will be provided to the successful candidate if required. |
| Applications are open to: | * All Candidates |
| Functional Area**:** | Research Scientist / Engineer – Postdoc |
| % Client Focus - Internal: | 50-70% |
| % Client Focus - External: | 30-50% |
| Reports to the: | Group Leader, Computer Vision, Cyber Physical Systems |
| Number of Direct Reports: | 0 |

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| **Role Overview:** |
| The Senior Researcher will create new theory, algorithms and methods in computer vision under the direction of the research group leader. They will pursue the goals of 3D Computer Vision including scene understanding and 3D reconstruction. They will engage in external and internal projects of the Computer Vision group.  This role requires an understanding of methods of computer vision at a leading international standard. This includes methods for scene segmentation and understanding, 3D reconstruction and the use of deep learning techniques for computer vision. They will write research papers and corresponding code and submit to high quality journals and conferences in computer vision and related disciplines. They will work with other team members on projects aligned with the strategy of the group. |

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| **Duties and Key Result Areas:** |
| ***General Duties for CSOF5 and CSOF6 appointments***   * Under the direction of senior research scientists, carry out innovative, impactful research of strategic importance to CSIRO that will, where possible, lead to novel and important scientific outcomes. * Produce high quality scientific papers suitable for publication in quality journals. * Prepare appropriate conference papers and present those at leading international conferences in computer vision and related areas as agreed with your supervisor. * Contribute to external projects as directed by your supervisor * Undertake regular reviews of relevant literature and patents. * Contribute to client reports and granting of patents as directed. * Work with your supervisor to contribute to the development of innovative concepts and ideas for further research in computer vision and related areas. * Make a contribution to the effective functioning of the research team and help deliver CSIRO’s organisational objectives and plans. * Work collaboratively with colleagues within your team, the business unit and across CSIRO. * 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.   ***Additional general Duties for CSOF6 appointment:***   1. Introduce new directions and approaches; solving complex problems using own professional expertise and knowledge of other disciplines and research areas. 2. Lead small research projects and assist with elements of larger projects including the negotiation of resource requirements. |

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| **Selection Criteria:** |
| *Under CSIRO policy only those who meet all essential criteria can be appointed*  ***Pre-Requisites:***   1. **Education/Qualifications: A doctorate and or equivalent research experience in a relevant discipline area, such as computer vision or medical image analysis*.*** 2. Communication: High level written and oral communication skills with the ability to represent the research team effectively internally and externally, including at national and international conferences. 3. Publications: A record of publications in quality, peer reviewed journals and conferences. 4. Behaviours: **A history of professional and respectful behaviours and attitudes in a collaborative environment.**   ***Essential Criteria for CSOF5 and CSOF6 Appointment:***   1. Demonstrated excellence in methods relevant to computer vision, particularly in scene understanding, 3D reconstruction and 3D scene understanding. 2. Experience in developing software in C++/Matlab. 3. A strong track record of a research in computer vision, evidenced by high quality publications. 4. Experience in deep learning methods in computer vision. 5. The ability to work effectively as part of a research team, plus the motivation and discipline to carry out autonomous research.   ***For appointment at the higher (CSOF6) salary level, as well as satisfying the pre-requisites and essential criteria fully outlined in the position details form, you must also have:***     1. Demonstrated experience leading a team or researchers / postdoctoral students. 2. Experience collaborating and engaging with industry including attracting funding, with the ability to deliver projects to clients. 3. A record of quality publications as primary author in high impact, peer reviewed journals or conferences. 4. A record of science innovation and creativity plus the ability to apply well developed research skills to scientific investigations.   **Desirable Criteria:**   1. Experience in visual segmentation.   **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).- <http://www.ielts.org/default.aspx>  ***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. |

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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 may be asked to provide additional information (online) relevant to the selection criteria. If so, then responding will enhance your application so please take the time to provide relevant succinct answers. Applicants who do not provide the information when requested may not be considered.  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](mailto: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:  Nick Barnesvia email: [Nick.Barnes@data61.csiro.au](mailto:Nick.Barnes@data61.csiro.au) or phone: +61 2 6218 3726  Please do not email your application directly to Nick. Applications received via this method will not be considered.  **About CSIRO**  Australia is founding its future on science and innovation. Its national science agency, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) is a powerhouse of ideas, technologies and skills for building prosperity, growth, health and sustainability. It serves governments, industries, business and communities across the nation.  Find out more! [www.csiro.au](http://www.csiro.au/).  **CSIRO Data61** 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.  **Our commitment to you** We work flexibly at CSIRO, offering a range of options for how, when and where you work. Talk to us about how this role could be flexible for you. We emphasise an individual’s growth and development which is supported by interacting and learning from world leading scientists and engineers, who provide the opportunity to challenge, transform and innovate new ideas.  CSIRO’s Data61 is committed to sourcing the brightest and best talent to become part of the Data61 family, which contributes to creating Australia’s data driven future. |