Research Projects – CSOF5/6

Role summary for potential applicants

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| Advertised Job Title**:** | Senior Software Engineer - Scala, Python, Haskell  |
| Reference Number**:** | 52848 |
| Classification | CSOF5 or CSOF6 |
| Salary Range: | CSOF5 - AU $95K - $103K plus up to 15.4% superannuationCSOF6 - AU $109K - $128K plus up to 15.4% superannuation**Appointment will be made at level 5 or 6 depending on skills and experience.** |
| Location**:** | Eveleigh, Sydney NSW |
| Tenure: | Indefinite |
| Relocation assistance**:** | Will be provided to the successful candidate if required |
| Applications are open to: | Australian/New Zealand Citizens and Permanent Residents only |
| **Functional Area:** | Research Projects |
| **% Client Focus - Internal:** | 20% |
| **% Client Focus - External:** | 80% |
| Reports to the: | Team Leader – Smart Infrastructure Engineering |
| Number of Direct Reports: | 0 |

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| **Role Overview:** |
| The Smart Infrastructure Engineering team within Data61 has an exciting opportunity for a Senior Software Engineer with strong skills delivering cloud software in various programming languages, including Haskell, Python and functional Scala.You will work closely with software engineers, researchers and our user experience team, applying technologies including IoT and remote sensing, machine learning and analytics to a range of applications including healthcare, civil infrastructure monitoring and precision agriculture. Data61 is the largest data innovation group in Australia. We are unrivalled in our intellectual capital and our network with the global technology marketplace. The combined group will bring together approximately 600 research staff working in digital technologies to create benefit for Australia. Data61 will continue to develop Australia’s future leaders with its strong 300+ PhD student program in collaboration with our best universities across Australia. |

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| **Duties and Key Result Areas:** |
| * Develop software and systems building on Data61's research in areas such as machine learning, data analytics, structural health monitoring, digital agriculture
* Contribute to software and system architectural design activities
* Follow and implement recognised software engineering best practices including documentation, test automation, and continuous delivery for ensuring software quality, performance, accessibility, maintainability and reusability
* Work collaboratively with project team members and others across Data61 to ensure that project goals and Data61’s goals are achieved
* Ensure that DevOps processes are in place to manage software builds and releases
* Contribute to open source development and participate in the broader development community as appropriate
* Contribute to Data61’s engineering discipline by improving use of software development tools, practices and culture
* Maintain high ethical and performance standards
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals
* Other duties as directed

**For appointment at the higher salary level (CSOF6), duties will also include:*** Lead software and system architectural design activities
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| **Selection Criteria:** |
| *Under CSIRO policy only those candidates who meet all essential criteria can be appointed.****Pre-requisite***1. **Education/Qualifications:** ABachelor degree in a scientific or engineering discipline such as Computer Science or equivalent commercial experience in software engineering.
2. **Communication:** High-level communication skills, both written and oral, including the ability to anticipate the interests and knowledge level of an audience and present information and feedback accordingly.

***Essential criteria***1. Expertise developing and deploying cloud software.
2. Experience with contemporary software development tools and practises: version control, unit testing, automated testing, issue tracking.
3. At least 5 years of commercial software development experience.

***Additional Essential Criteria for CSOF6 Appointment***1. At least 2 years demonstrated senior expertise in cloud software architecture, design and implementation, with extensive experience delivering robust and maintainable code to solve business problems.

***Desirable criteria – one or more of the following skills would be an advantage, however is not essential.***1. Varied programming language paradigms (Haskell, Scala, Python, Elm, JavaScript)
2. Linux/UNIX and cloud development
3. Web applications (frontend/single-page apps, RESTful APIs, backend services)
4. Databases (SQL and NoSQL, time-series, administration, performance tuning, schema design and modelling, stored procedures, triggers, clustering, query design and evaluation)
5. AWS deployment (EC2, ECS, IAM, CloudFormation, Lambda)
6. DevOps (Ansible) and container (Docker, Kubernetes) technologies
7. Continuous integration/continuous deployment (Jenkins)
8. Message queues (Kafka, Kinesis, NATS, RabbitMQ)
9. Agile project management
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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 both your cover letter and resume/CV as one document, expressing your interest in the role and broadly addressing your suitability. Please include publicly available URLs if possible, with examples of your best work (completed website / app projects, personal website, github, codepen, etc). * 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

**Contact:** If after reading the selection documentation you require further information please contact:* Melissa Sunteo via email: Melissa.Sunteo@data61.csiro.au or phone: 02 9490 5849. Please do not email your application directly. Applications received via this method will not be considered.

**CSIRO’s** [**Data61**](https://www.data61.csiro.au/) business unit is the largest data innovation group in Australia, bringing together approximately 600 research and development staff working in digital technologies to create benefit for Australia. Data61 develops Australia's future leaders with its strong 300+ PhD student program in collaboration with our best universities across Australia. **About** [**CSIRO**](https://www.csiro.au/)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. **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. |