# POSITION DESCRIPTIONResearch Projects – CSOF5

Role summary for potential applicants

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| Advertised Job Title**:** | Full Stack Functional Developer |
| Reference Number**:** | 56495 |
| Classification**:** | CSOF5 |
| Salary Range: | Attractive salary and conditions negotiable  |
| Location**:** | Brisbane, QLD |
| Tenure: | Specified Term of 1 year and 6 months |
| Relocation assistance**:** | Will be provided to the successful candidate if required. |
| Applications are open to: | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Functional Area**:** | Research Projects |
| % Client Focus - Internal: | 50% |
| % Client Focus - External: | 50% |
| Reports to the: | Group Leader, Physical Data Platforms |
| Number of Direct Reports: | 0 |

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| **Role Overview:** |
| The Full Stack Functional Developer will build prototypes and products from CSIRO research and technology, delivering primarily to external clients. Digital agriculture is a key focus of the team. We are seeking a strong front and back end developer, ideally with an interest in functional programming. The developer will work closely with the Brisbane Functional Programming Open Lab. |

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| **Duties and Key Result Areas:** |
| * Develop front and back end software for systems building on CSIRO’s research as part of a Data61 business-focussed project team. Technologies:
	+ Haskell, Java, Python, R
	+ HTML/CSS, JavaScript with ReactJS, jQuery, Elm, PureScript
	+ REST APIs
	+ Reactive programming
	+ NoSQL, time series and spatial databases
	+ Cloud devops, mainly AWS.
* Work collaboratively with project team members and others across CSIRO to ensure that project goals and CSIRO’s goals are achieved.
* Make use of appropriate software development tools and processes for coding efficiency and for ensuring software quality, accessibility, maintainability and reusability.
* 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.
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| **Selection Criteria:** |
| *Under CSIRO policy only those who meet all essential criteria can be appointed****Pre-Requisites:***1. **Education/Qualifications:** Relevant Bachelors/Masters Degree or equivalent 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.
3. **Behaviours:** A history of professional and respectful behaviours and attitudes in a collaborative environment.
4. **Adaptability:** The ability to effectively manage a number of competing priorities simultaneously, and carry out non-routine tasks independently.
5. **Problem Solving:** Proven ability to investigate underlying issues of complex and ill-defined problems and develop appropriate responses by adapting/creating and testing alternative solutions**.**

***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 3 years of commercial software development experience.
4. The ability to work effectively as part of a multi-disciplinary, regionally dispersed research team, and carry out tasks autonomously in support of scientific research.
5. Demonstrated ability & willingness to contribute novel ideas and approaches in support of scientific investigations.

**Desirable Criteria:**1. Varied programming language paradigms (Haskell, Python, Java, JavaScript, Elm, PureScript)
2. Linux/UNIX and cloud development
3. Web applications (frontend/single-page apps and frameworks, 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

**As Australia’s Innovation Catalyst, CSIRO has strategic actions underpinned by behaviours aligned to**:* Excellent science
* Inclusion, trust & respect
* Health, safety & environment
* Delivery 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 <https://jobs.csiro.au/> and enter requisition number **56495**. Internal applicants please apply via ‘Jobs Central’ in SAP (click ‘Recruitment’) Please load your CV (Maximum 2MB). You may also be required to respond to some screening questions.  If you experience difficulties applying online call 1300 984 220 for assistance. Outside Australian business hours please email: csiro-careers@csiro.au. **Referees**: Please provide contact details of two previous supervisor or academic/professional referees in your resume/CV. We will ask your permission before making contact. **Contact:** If after reading the position details above you require more information please contact: **Nicolle Yore**via email: nicolle.yore@csiro.au or phone: **+61 7 3214 2758**Please do not email your application directly to Ms Yore. Applications received via this method may not be considered by the selection panel.**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). 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. Find out more! [CSIRO Balance](https://www.csiro.au/en/Careers/A-great-place-to-work/Work-life-balance) **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. |