**POSITION DESCRIPTION**

**Research Projects – CSOF5/6**

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| Advertised Job Title**:** | Full Stack Developer |
| Job Reference: | 62050 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Percentage of Client Focus - Internal: | 50% |
| Percentage of Client Focus - External: | 50% |
| Reports to the: | Group Leader, Domain Engineering |
| Number of Direct Reports: | 0 |
| Name and Contact Details For Applicant Enquiries | Leanne Danh  **E** [Leanne.Danh@data61.csiro.au](mailto:Leanne.Danh@data61.csiro.au)  **T** +61 2 9490 5978 |
| Contact Details For Applying | Call 1300 984 220 or email [careers.online@csiro.au](mailto:careers.online@csiro.au). |
| How to Apply: | Please apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number**.** Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon |

## Role Overview:

The Full Stack Developer will build cloud software prototypes and products from CSIRO research and technology. Digital agriculture is a key focus of the team.

## Duties and Key Result Areas:

* Front end development
  + Javascript/Typescript with React and Redux
  + Elm
* Back end development
  + Python Django
  + Scala
  + Haskell
* REST APIs
* Reactive programming
* Relational, NoSQL, time series and spatial databases
* Cloud devops, mainly AWS
* A key part of the role is to 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 CSIRO’s engineering discipline by improving use of software development tools, practices and culture
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, 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:**

* Review and guide software architecture and development by outsourced and junior software engineers

## Competencies:

1. **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.**
2. **Influence and Communication: Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.**
3. **Resource Management/Leadership: Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.**
4. **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
5. **Independence: Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.**
6. **Adaptability:** Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## Selection Criteria:

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

1. Relevant trade certificate/diploma/bachelor’s degree or relevant work experience in software engineering
2. Expertise developing and deploying cloud software
3. Experience with contemporary software development tools and practises: version control, unit testing, automated testing, issue tracking
4. At least 3 years of commercial software development experience

**Additional essential criteria for CSOF6 appointment:**

1. Deep expertise developing and deploying cloud software
2. Experience mentoring junior software developers
3. At least 5 years of commercial software development experience

## Desirable Criteria:

## Web applications (frontend/single-page apps and frameworks, ReactJS, RESTful APIs, backend services)

## Varied programming language paradigms, including object oriented and functional

## Message queues (Kafka, Kinesis, NATS, RabbitMQ)

## Databases (SQL and NoSQL, time-series, administration, performance tuning, schema design and modelling, stored procedures, triggers, clustering, query design and evaluation)

## Cloud deployment on AWS, GCP, Azure

## DevOps (Ansible, Puppet) and container (Docker, Kubernetes) technologies

## Continuous integration/continuous deployment (Jenkins, Gitlab, Concourse)

## Agile project management

## About CSIRO:

We imagine. We collaborate. We innovate. To find out more visit us [online](http://www.csiro.au/)!

Find out more about CSIRO [Data61](https://www.data61.csiro.au/).