# Position Details

## Research Projects- CSOF5

|  |
| --- |
| The following information is for applicants |
| Advertised Job Title | Data Engineer |
| Job Reference | 75602 |
| Tenure | Specified Term of 11 months Full-time |
| Salary Range | AU$100,710 to AU$104,850 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Dutton Park, QLD |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | CSIRO BioFoundry Facility Manager |
| Client Focus – Internal | 70% |
| Client Focus – External | 30% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Janet Reid via email at janet.reid@csiro.au or phone +61 7 3833 5704  |
| How to apply | Apply online at <https://jobs.csiro.au/> Internal applicants please apply via **Jobs Central**If you experience difficulties when applying, please email careers.online@csiro.au or call 1300 984 220. |

### Role Overview

The role of Research Projects staff in CSIRO is to collaborate in scientific and technological activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work.

The CSIRO BioFoundry facility delivers high-throughput synthetic biology capability to the Australian R&D community. The facility combines laboratory automation and high-throughput equipment and software to design and assemble DNA parts in novel ways and to engineer microorganism strains. The facility includes equipment and processes to close the synthetic biology Design-Build-Test-Learn cycle.

The BioFoundry Data Management Engineer is at the intersection of the technology and biological/chemical processes. The person in this role will develop, deploy and maintain management systems for effective tracking and flow of data generated by the CSIRO BioFoundry. They will configure, maintain, and customise the BioFoundry’s information systems, including vendor and inhouse Laboratory Information Management Systems (LIMS), application servers, websites and databases, coordinating with CSIRO’s data teams to ensure compliance with respective data storage requirements. They will also work with the CSIRO BioFoundry team and application developers/vendors to tune systems to meet the BioFoundry’s workflow requirements. This role will be integral to enabling faster iterations of, and closing, the Design-Build-Test-Learn bioengineering cycle.

### Duties and Key Result Areas

* Learning and understanding the biological processes in the workflows to identify and develop tools to address gaps in data capture
* Responsible for system operations of the LIMS including the management of both the application and database tiers of the solution
* In consultation with the team, provision of feedback to and coordination of system upgrades with the application developer/vendor
* Provide required support to the team for use of data management tools including technical documentation, Admin/User SOP's and appropriate training
* Assist in the data import, entry and validation process
* Automate manual, recurring tasks in data processing workflows
* Facilitate data exchange with external/internal sites
* Setup, maintain and extend a dynamic web application to communicate with the BioFoundry’s collaborators
* Liaise with clients to determine their needs and take personal responsibility for their satisfaction, correcting problems promptly and in a constructive manner
* Under limited direction design or develop techniques, systems or processes requiring high levels of initiative, ingenuity and skill, and appropriate communication of service results.
* Working with unique or unusual features and complexity which require original design and techniques, some of which may be outside a single discipline.
* Address problems promptly and in a constructive manner, selecting the most profitable lines of attack upon a problem, preparing detailed design proposals
* Draw on professional expertise and knowledge of other disciplines, recognise opportunities for innovation and generate new perspectives by pursuing new ideas/approaches and networking with colleagues across a range of disciplines
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. Relevant bachelor’s degree and 3 years relevant work experience in Information Technology, Information Management, Database Administration, Bioinformatics, Engineering, Science or related discipline
2. Detailed knowledge in the following areas: Linux management, Relational databases (e.g. Oracle, MySQL), Web or/and Application Servers (e.g. Apache, NGINX, Tomcat, JBOSS, Glassfish), Programming language (e.g. PHP, Python, Java, NodeJS), Git and/or Subversion experience
3. Advanced experience in working with relational databases and the design of data models with demonstrated success in improving system operations, delivery and managing large datasets to improve data integrity and quality
4. Demonstrated ability gathering and translating business requirements into system requirements and implementing application and database level changes, including manipulating data while maintaining data integrity and quality, application usability and security
5. A commitment to fostering an effective team environment, communicating and working with others across units and disciplines.

## **Desirable**

1. Experience in electronic lab-notebook administration, scientific data management and analysis
2. Experience in the development and implementation of standards, procedures and guidelines to support operational processes

## **Required Competencies**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other team as well as industry colleagues.
* **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.
* **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **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.
* **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.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.

This role has child safety obligations. Accordingly, the successful candidate will be required to obtain or provide evidence that they hold a working with children check prior to confirmation of appointment.

The successful candidate should be willing and eligible to obtain, if required, a security clearance at the Secret (NV1) level.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) for more information.

Find out more about CSIRO [Land and Water](https://www.csiro.au/en/Research/LWF)

Find out more about the [CSIRO BioFoundry](https://research.csiro.au/synthetic-biology-fsp/research/about-the-csiro-biofoundry/biofoundry-contact/)

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* People First
* Further Together
* Making it Real
* Trusted