# Position Details

## Research Projects- CSOF6

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| The following information is for applicants |
| Advertised Job Title | Senior Data Analyst/Engineer |
| Job Reference | 77186 |
| Tenure | Specified Term of 3 yearsThis role is offered on a full-time or part-time (minimum 0.8 FTE) basis |
| Salary Range | AU$115k to AU$135k pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Newcastle, NSW or Melbourne (Clayton) VIC  |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Team leader, Data Science |
| Client Focus – Internal | 30% |
| Client Focus – External | 70% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Subbu Sethuvenkatraman via email at subbu.sethuvenkatraman@csiro.au or phone +61 2 4960 6135 |
| 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. |

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### 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. At senior levels, Research Projects staff may be involved in providing consulting services, science and technology management and/or industry liaison.

CSIRO Energy is playing a key role in Australia’s energy transition. We are pioneering low-emission technologies that create value for industry and households and provide the research that will inform decision makers and help guide Australia towards a smart, secure energy future.

The Senior Energy Data Analyst/Engineer role will be responsible for shaping the Data Science team’s technical direction that is aligned with the CSIRO’s Energy Business Unit strategy. The position will be responsible for the successful delivery of projects, client engagement and mentoring of junior team members. The role will work with internal and external stakeholders to scope data science projects, develop implementation pathways and lead implementation activities.

The position will also mentor junior team members and support them with their technical skills development.

This role is offered on a full-time or part-time (minimum 0.8 FTE) basis.

### Duties and Key Result Areas

* Design and manage the implementation of data science solutions for energy domain problems.
* Lead and implement statistical and machine learning models to turn raw data into domain specific business insights.
* Take ownership of data driven model deployment and maintenance activities using industry best practices.
* Oversee and support design of data management platforms and workflows.
* Assist with the setting the strategic direction of CSIRO Energy data science research and skills development.
* Lead interactions with potential partners within CSIRO and external stakeholders to identify solutions to their problems and develop implementation pathways.
* Under general direction participate in planning major projects including allocating and directing tasks, managing resources to meet project objectives in a timely manner.
* Provide coaching, on-the-job training and instruction to colleagues, on activities pertaining to their data science projects to ensure upskilling of staff.
* Maintain confidentiality when dealing with commercially sensitive information.
* 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, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **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:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious, proposals / ideas.
* **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:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Demonstrates flexibility in thinking and adapts to and manages the increasing rate of organisational change by adjusting strategies, goals and priorities.

## **Selection Criteria**

#### Essential

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

1. A Bachelor’s/Master’s degree or equivalent relevant work experience in statistics, machine learning, software engineering, computer science, applied mathematics or a related data science background.
2. Extensive experience in a relevant data science/engineering area.
3. Proven expertise in Python programming language.
4. Demonstrated experience in at least five of the following areas: machine learning, deep learning, time series analytics, big data, data management, cloud computing infrastructures, data visualisation tools, model deployment, model maintenance practices.
5. Demonstrated experience in mentoring, project leadership and/or technical leadership.
6. Evidence of use of industry standard software processes for code quality, change management and data science model delivery, deployment and ongoing maintenance.
7. Evidence of understanding business needs and formulating data science solutions to solve business needs.

## **Desirable**

1. Experience of working with energy domain data.
2. Demonstrated professional experience in a range of technologies as listed below:
	* **Languages**: R, Julia, Java, C++
	* **Libraries**: pandas, dask, plotly, dash, scikit-learn, tensorflow, pytorch, or equivalent
	* **Skills**: Linux shell, SSH, docker, git, multi-threading, distributed computing, SQL, NoSQL, cloud computing, web API design, data visualisation, report writing
	* **Modelling**: maths/statistics, supervised (classification/regression), unsupervised (clustering, anomaly detection), reinforcement learning, grey box modelling, numerical optimisation
3. Contributions to scientific papers in peer reviewed journals and/or reports.
4. Experience working in the electricity, power systems sector.

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.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test- https://ielts.com.au/)

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

* 1. People First
	2. Further Together
	3. Making it Real
	4. Trusted

Find out more about CSIRO [Energy](https://www.csiro.au/en/Research/EF)