# Position Description

## Research Scientist/Engineer – CSOF5

The following information is for applicants

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| Advertised Job Title**:** | Resources Data Scientist |
| Job Reference: | 60557 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | * All Candidates
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| Percentage of Client Focus - Internal: | 75% |
| Percentage of Client Focus - External: | 25% |
| Reports to the: | Team Leader Geoscience Analytics |
| Number of Direct Reports: | 0 |
| Name and Contact Details For Applicant Enquiries  | Jens Klump via email - jens.klump@csiro.au*Please do not email your application directly to Jens Klump. Applications received via this method may not be considered by the selection panel.* |
| Contact Details For Applying | Call 1300 984 220 or email 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 role of Research Scientist Staff in CSIRO is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. You may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. You will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

The Research Scientist will join the Geoscience Analytics Team. The Scientist will draw on a broad background of techniques in order to solve geological problems by integrating multivariate geoscience data. These techniques may include (but are not limited to) machine learning, geostatistics, information theory, signal processing, simulation and uncertainty estimation. The Research Scientist will be creative, innovative and capable of modifying existing techniques to be applied to geoscience research question. The candidate will be expected to publish research results and present at conferences and workshops.

## Duties and Key Result Areas:

* Work with researchers to design algorithms and implement them in software to provide analytical insight into geoscience problems.
* Provide support in planning and specifying projects.
* Present on project/research outcomes as required.
* Communicate effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work as part of a multi-disciplinary, often regionally dispersed research team, to carry out tasks autonomously in support of scientific research.
* Work collaboratively with colleagues within your team, the business unit and across CSIRO, to reach objectives.
* Set-up and/or maintain effective and efficient work teams, allocate and manage resources and undertake staff performance management and career development.
* Choose appropriate management strategies and communication styles to maintain high levels of motivation and productivity, give feedback for development purposes and provide support and direction for improvement, as required.
* Adapt and/or develop original experimental methods/equipment/software/concepts/ideas in support of existing and further research.
* 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.

## 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. A PhD or qualification and research experience, which taken together, are equivalent to this educational standard.
2. Demonstrated experience in designing algorithms and implementing them in software to provide analytical insight.
3. Experience in data science (e.g. machine learning, signal processing, probability theory).
4. Demonstrated ability and willingness to contribute novel ideas and approaches in support of scientific investigations.
5. Demonstrated programming skills, experience in writing robust, reusable, and well-tested code

## Desirable Criteria:

1. Strong background in spatial statistics
2. Basic understanding of geosciences and the resources industry, or equivalent.
3. Programming skills in Python, R and knowledge of relevant software libraries
4. Experience in using software development tools for version control and issue tracking
5. Experience in cloud computing or High-Performance Computing.
6. Experience working with industry on research-oriented projects is highly regarded.

## Special Requirements:

Appointment to this role may be subject to conditions including security/national police/medical/character clearance requirements. Applicants who are not Australian Citizens or Permanent Residents 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/>

## About CSIRO:

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

Find out more about CSIRO [Mineral Resources](https://www.csiro.au/en/Research/MRF)