# Position Details

## Research Projects- CSOF3

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| The following information is for applicants |
| Advertised Job Title | Software Engineer |
| Job Reference | 76881 |
| Tenure | Specified Term of 36 months Full-time |
| Salary Range | AU$64,866 to AU$82,556 pa + up to 15.4% superannuation |
| Location(s) | Pullenvale |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Position reports to the | Team Leader |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Jeremy Thompson via email jeremy.thompson@csiro.au+61 7 3327 4769 |
| 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 Mining Technologies Research Group (MTRG) is one of Australia’s largest mining research groups and has a goal of delivering transformational change to the mining industry. MTRG has developed a number of world-first technologies for the Australian and International mining industry. This includes the LASC system for underground coal longwall mining automation as well as systems for continuous miner automation, roadheader automation and coal seam sensing and characterisation.

MTRG is seeking a Research Projects Software Engineer to join their Automation Technology team. The role of Research Projects staff in CSIRO is to collaborate in scientific activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental and observational work, and in carrying out the more practical aspects of the work.

This role has been created to provide software engineering support across the suite of existing and emerging projects being undertaken by the Mining and Processing Technologies Research Group. This role will cover a wide range of activities, including software development, documentation, sensor data analysis, algorithm development, system design and integration.

### Duties and Key Result Areas:

* Provide software engineering capability for new and existing project applications across the research group.
* Respond courteously and efficiently to client requests, maintaining clear communication regarding mutual expectations and monitoring client satisfaction.
* Undertake and complete tasks under technical direction, working with discretion to decide on the timing of operations within the work team’s plan and planning ahead to meet experiment and/or project demands.
* Under technical direction undertake experiments, analyses and technology development activities (some non-routine) using a range of techniques, often working on a number of parallel and competing tasks.
* Design new processes or apparatus by adapting existing techniques and components to meet special circumstances or undertake modifications to methods requiring some innovation.
* 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’s 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.

## **Required Competencies:**

* **Teamwork and Collaboration:** Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.
* **Influence and Communication:** Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids, which will assist in conveying meaning.
* **Resource Management/Leadership:** Provides instruction and assists other staff to complete allocated tasks and activities.
* **Judgement and Problem Solving:** Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:**Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

## **Selection Criteria**

#### Essential

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

1. Demonstrated Software Engineering proficiency.
2. Relevant diploma/bachelor’s degree or equivalent relevant experience in Software Engineering.
3. A history of professional and respectful behaviours and attitudes in a collaborative environment.
4. The ability to work effectively as part of a multi-disciplinary research team comprised of both internal and external collaborators in a regionally dispersed setting.

## **Desirable:**

1. Strong proficiency in C++.
2. Experience designing and developing software in an industrial automation setting.
3. Experience with Linux operating systems including in embedded environments.
4. Experience with software development for microprocessors.

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.

Where required by the demands of specific project responsibilities, you must be willing and able to:

* Undertake work out of normal workday hours, including after-hours and weekends.
* Undertake field work to mine sites and other remote locations.
* Undertake field work in underground environments including coal and/or hard rock underground mines.

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