



Position Details

Technical Services - CSOF5

THE FOLLOWING INFORMATION IS FOR APPLICANTS	
Advertised job title	HPC AI & Kubernetes Platform Engineer
Job reference	102893
Tenure and work schedule	Indefinite Full-time and minimum Part-time of 45 hrs/fortnight considered We will explore options for part-time, job-share and flexible work arrangements based on needs of the role and individual circumstances.
Salary range	AU\$118,102 - AU\$127,808 per annum (pro-rata for part-time) plus up to 15.4% superannuation
Location(s) and office arrangements	Melbourne (Clayton), Canberra (Black Mountain) Other Australian Major Capital Cities considered. Flexible work options available
Relocation assistance	Will be provided to the successful candidate if required
Applications are open to	Australian Citizens Only
Position reports to the	HPC and Research Platforms Team Lead, Scientific Computing Platforms
Client focus – Internal	95%
Client focus – External	5%
Number of direct reports	1
Enquire about this job	Dr Slava Kitaeff via email at slava.kitaeff@csiro.au
Support and workplace adjustments	We offer a range of reasonable supports and workplace adjustments. Please let us know via email Sarah.lyons@csiro.au if we can help you to equitably participate in our recruitment process or the role itself.
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

Acknowledgement of Country

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](#).

About CSIRO

As Australia's national science agency, CSIRO is solving the greatest challenges through innovative science and technology. Many of our iconic innovations were once considered impossible until someone, just like you, joined us and took on the challenge.

As one of the world's largest multidisciplinary mission-driven research organisations, we are focused on the issues that matter the most: for our quality of life, for the economy and for our environment. We believe diverse teams are more effective and deliver more innovative outcomes. When we all focus on the big things that really matter, and work in partnership with our communities and [Indigenous Australia](#), Australian science and technology can solve seemingly impossible problems and create new value for all Australians. Visit [CSIRO.au](https://www.csiro.au) for more information.

Role overview

The High-Performance Computing and Research Platforms group within the Information Management & Technology (IMT) function designs and operates comprehensive technology solutions for advanced high-performance research computing. This team oversees a complete computational and data infrastructure, including multiple high-performance computing (HPC) clusters, Kubernetes (K8s) and AI CPU and GPU clusters.

As a HPC AI & Kubernetes Platform Engineer, you will be responsible for designing, implementing, and managing Kubernetes and AI infrastructure to support scalable, resilient, and secure applications. You will work closely with development and operations teams to optimise and maintain the K8s and AI environment, ensuring high availability and performance of containerised applications. This role requires an understanding of container orchestration, cloud and cluster environments, and infrastructure automation.

CSIRO provides all staff the opportunity to grow their knowledge in technology capabilities across on-prem, public cloud and partners, including access to a comprehensive training portfolio to further improve career opportunities and personal development.

Duties and key result areas

- AI Environments Management: Design, deploy, and manage run:ai and AI development tools and environments on GPU clusters.
- Kubernetes Management: Design, deploy, and manage K8s across various environments (on-premises, cloud, hybrid). Implement and maintain K8s best practices to ensure efficient and reliable cluster operations.
- Infrastructure Automation: Develop and maintain automation scripts and tools for provisioning, configuration, and management of run:ai and K8s environments. Leverage Infrastructure as Code (IaC) tools such as Helm, Ansible or Terraform.
- Monitoring and Troubleshooting: Implement monitoring and logging solutions to ensure the health and performance of GPU clusters. Troubleshoot and resolve issues related to cluster operations, application deployments, and performance bottlenecks.
- Security and Compliance: Ensure that environments adhere to security best practices and compliance requirements. Implement and manage security controls such as role-based access control (RBAC), network policies, and image scanning.

- Collaboration: Work closely with DevOps, development teams, research users and other stakeholders to understand requirements, optimise workflows, and support scientific applications and workflows. Provide guidance and support for containerisation, K8s, and run:ai-related issues.
- Continuous Improvement: Stay up to date with the latest technology developments and trends. Propose and implement enhancements to improve the efficiency, scalability, and reliability of cluster and cloud environments.
- Contribute to service management processes (change management, configuration management and incident management)
- 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 collaboratively as part of a multi-disciplinary, regionally dispersed research team to carry out tasks in support of CSIRO scientific objectives.
- Adhere to the spirit and practice of CSIRO's Values, Code of Conduct, Health, Safety and Environment procedures and policy and diversity initiatives.
- Other duties as directed.

Selection criteria

Essential

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

- Relevant Bachelor's degree or equivalent relevant work experience in Information Technology, Computer Science, Mathematics, Physics or Engineering.
- Knowledge of containerisation technologies (Docker, containers) and microservices architecture
- Knowledge of run:ai and AI development tools and environments
- Proficiency in scripting and automation using tools such as Bash, Python, or Go
- Familiarity with Infrastructure as Code (IaC) tools like Helm, Ansible or Terraform
- Experience in Linux system administration
- Understanding of networking concepts, security practices, and CI/CD pipelines
- Strong problem-solving, analytical and communication skills
- Demonstrated ability to work with independence and self-motivation within a distributed team environment

Desirable

- Kubernetes (CKA or CKAD), or NVIDIA Certification, or equivalent
- Experience with public cloud platforms (AWS, Azure, GCP) and associated services related to K8s and ML

Not sure if you need all the criteria?

While it is CSIRO policy that the successful candidate must meet all the essential criteria, there are many ways to demonstrate this. Don't let the list discourage you. If you are unsure about applying, please reach out to the contact on page 1 of this document so we can discuss the role further.

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 teams 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.

Setting you up for success

We understand that not everyone works in the same way and sometimes people may require reasonable support and adjustments to perform at their best. Whether related to the recruitment process and or the role itself, this may include options such as providing different methods of communication, flexible hours or physical adjustments to work methods. If you feel comfortable, we encourage you to share any support and adjustments you may need to carry out the inherent requirements of the role. Please let us know via email Sarah.Lyons@csiro.au if we can help you to equitably participate in our recruitment process or the role itself.

Life at CSIRO and flexible working arrangements

We [work flexibly at CSIRO](#), offering a range of options for how, when and where you work. We can discuss flexible work arrangements with you during the recruitment process. CSIRO also offers a range of leave entitlements, [benefits](#) and [career development](#) opportunities. To learn more, visit [Careers at CSIRO](#).

We celebrate the uniqueness of our workforce and are committed to creating [diverse and inclusive teams](#) where everyone feels they belong. CSIRO is an equal employment opportunity organisation dedicated to recruiting people based on merit, and reflecting the diversity of the community we serve. We recognise true diversity encompasses all ages, nationalities, abilities, cultures, genders, sexualities, faiths, levels of education, diversity of thought and many more

aspects of identity. By empowering diverse teams, our community is reflected in the solutions we create.

CSIRO values

CSIRO is a values-based organisation committed to values-based leadership.

Value	Descriptor	Behaviour
People first	Our priority is the safety and wellbeing of our people. We believe in, and respect, the power of diverse perspectives. We seek out and learn from our differences.	<ul style="list-style-type: none"> • Respectful • Caring • Inclusive
Further together	We achieve more together than we ever could alone. We listen and collaborate, in teams, across disciplines, across boundaries. We embrace ambiguity and use discussion and persistence to generate unique solutions to complex problems.	<ul style="list-style-type: none"> • Accountable • Authentic • Courageous
Making it real	We do science with real impact. We thrive when taking on the big challenges facing the world. We take educated risks and defy convention. We celebrate successes and failures and leverage them to learn as we strive to be the force for positive change.	<ul style="list-style-type: none"> • Partnering • Cooperative • Humble
Trusted	We're driven by purpose but remain objective. We fight misinformation with facts. We earn trust everywhere through everything we do. We trust each other and we hold each other accountable. Together our actions drive Australia's trust in CSIRO.	<ul style="list-style-type: none"> • Curious • Adaptive • Entrepreneurial

Child safety

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](#).

Special requirements

Appointment to this role is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

- The successful candidate will undertake a pre-employment background check. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
- The successful candidate will be required to obtain and maintain a security clearance at the Negative Vetting 1 Level.