



Position Details

Research Projects – CSOF5

THE FOLLOWING INFORMATION IS FOR APPLICANTS

Advertised Job Title	Software Engineer – Assembly, Integration and Verification (AIV)
Job Reference	98389
Tenure and work schedule	<p>Indefinite</p> <p>Full-time (preferred) or Part-time (min 0.8 FTE) may be considered</p>
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	<p>Perth (Kensington), Western Australia</p> <p><i>Flexible work options may be considered</i></p>
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	CSIRO AIV Work Group Supervisor
Client Focus – Internal	20%
Client Focus – External	80%
Number of Direct Reports	0
Enquire about this job	To enquire about this position, please contact Ryan Spence, Interim AIV Team Leader, via email at ryan.spence@csiro.au .
Support and workplace adjustments	We offer a range of reasonable supports and workplace adjustments. Please let us know via email Piumi.Desilva@csiro.au (Piumi De Silva – Talent Acquisition Partner) if we can help you to equitably participate in our recruitment process or the role itself.
How to apply	<p>Apply online at https://jobs.csiro.au/</p> <p>Internal applicants please apply via Jobs Central</p> <p>If you experience difficulties when applying, please email careers.online@csiro.au</p>

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](#) for more information.

Background

The SKA Observatory is a next-generation radio astronomy facility set to transform our understanding of the Universe and fundamental physics. By deploying cutting-edge technology, it will have a lasting impact on science and society. With investment totalling almost A\$3.5bn, the scale and reach of the facility will be unsurpassed.

The SKA Observatory is an Intergovernmental Organisation, supported on five continents and in both hemispheres under a unique partnership of sixteen nations. The SKA Observatory's facilities include its headquarters in the UK and radio-quiet sites in remote areas of South Africa and Australia, where the mid- and low-frequency telescopes are being built. By constructing and operating these advanced telescopes, the SKA Observatory will become the world leader in radio astronomy, providing unparalleled research capabilities for decades.

In Australia, the SKA Observatory is collaborating with CSIRO, Australia's national science agency, to construct and operate the SKA-Low Telescope. SKA-Low teams are operating out of:

- Inyarrimanha Ilgari Bundara, the CSIRO Murchison Radio-astronomy Observatory on Wajarri Yamaji Country.
- Our Engineering Operations Centre on Nhanhangardi, Naaguja, Wilnyu and Amangu Country in Geraldton.
- Our Science Operations Centre on Whadjuk Noongar Country in Perth.

Further Reading: [Explore CSIRO and the SKA-Low Telescope project](#)

Role overview

The Software Engineer will provide software support services as part of the Assembly, Integration and Verification (AIV) Professional Services Consultant (PSC) Team, which is an integrated part of the larger SKAO AIV team. The Assembly, Integration and Verification (AIV) team is integrating complex digital and RF electronic systems into the SKA LOW Telescope Signal Chain and then verifying the Telescope to defined Level 1 requirements. This will entail the integration and verification of distributed software systems and the relevant hardware and include deployment onto high performance computing (HPC) platforms and integrating data processing workflows. On completion of the project's construction phase, the role will join SKAO Operations team.

This role entails working in an agile team environment distributed across the world and requires working with others in different time zones. CSIRO has a flexible work policy to accommodate this. Occasional domestic and international travel may also be required to support and attend planning and testing events.

Duties and Key Result Areas

- Proactively identify, investigate, and solve complex problems spanning multiple software and hardware components, as part of a multi-disciplinary, regionally dispersed team.
- Integrate control and data processing software components in a self-managed Kubernetes environment spanning off-the-shelf and custom hardware.
- Design and implement system-level tests for integration and verification of the telescope.
- Assist science users to operate the telescope during the construction phase.
- Develop control and/or data processing software for test environment and telescope components in Python.
- Communicate openly, effectively, and respectfully with all staff, clients and suppliers, and form quality interpersonal relationships that reflect good business practice, collaboration and enhancement of CSIRO's values and reputation.
- Adhere to the spirit and practice of CSIRO's and SKAO's Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Zero Harm goals.
- Perform other related tasks as requested.

Selection criteria

Essential

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

1. A bachelor's or master's degree relevant to Software Engineering, and/or equivalent work experience in a relevant field.
2. Demonstrated post-graduate work experience in Python development within a collaborative environment.
3. Demonstrated experience in developing and supporting distributed, multi-core data processing software running in Cloud, Scientific Computing or High-Performance Computing (HPC) platforms.
4. Experience in deploying and operating applications in a Linux environment.

Desirable

1. Experience with Kubernetes or other container orchestration systems.
2. Experience in developing Scientific Computing Software.
3. Knowledge of real-time streaming or batch data processing pipelines.
4. An interest in Astronomy.

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 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.
- Given the nature of the position, the successful candidate should be able and willing to work flexible hours when required, and travel locally, nationally, and occasionally internationally as required for project needs.

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 email the Talent Acquisition Partner, listed on Page 1, to let us know 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.