

Position Details

Research Projects – CSOF4

THE FOLLOWING INFORMATION IS FOR APPLICANTS

Advertised Job Title	Web/UI Developer - SKA-Low Telescope
Job Reference	98682
Tenure	Indefinite - Full-time, Part-time or Job-share
Salary Range	CSOF4 - AU\$96,811 to AU\$109,527 per annum, plus 15.4% superannuation
Location(s)	Perth, Western Australia
Relocation Assistance	Will be provided to the successful candidate if required
Applications are open to	All Candidates
Client Focus – Internal	0%
Client Focus – External	100%
Position reports to the	This position will report to the SKA-Low Controls Manager
Number of Direct Reports	0
Enquire about this job	To enquire about this job please reach out to the SKA-Low Controls Manager, Drew Devereux, on drew.devereux@csiro.au for more information.
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.

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](#).

The CSIRO Experience

As an employee of CSIRO, you will be eligible for the many benefits of working at Australia's National Science Agency. You can read more here:

1. [Life at CSIRO](#)
2. [Personal Development & Learning](#)
3. [Generous Leave & Conditions](#)
4. [Work / Life Balance](#)

Background

The SKA Observatory (SKAO) is a next-generation radio astronomy facility that will revolutionise our understanding of the Universe and the laws of fundamental physics. Enabled by cutting-edge technology, it promises to have a major impact on society, in science and beyond. As an intergovernmental organisation, the SKAO brings together sixteen countries around the world.

The SKAO has an international footprint and consists of the SKAO Global Headquarters in the UK, the SKAO's two telescopes at radio-quiet sites in South Africa and Australia, and associated facilities to support the operations of the telescopes.

Constructing and operating these telescopes will position the SKAO as the leading research infrastructure for radio astronomy globally, providing science capabilities to the international astronomical community for decades to come.

Australia will host the SKAO's low frequency telescope (SKA-Low) in remote Western Australia on Wajarri Yamaji Country.

The Traditional Owners and native title holders, the Wajarri Yamaji, have gifted CSIRO with the traditional name Inyarrimanha Ilgari Bundara for the CSIRO Murchison Radio-astronomy Observatory, home to the SKA-Low telescope. The traditional name means 'sharing sky and stars' in the Wajarri language.

In Australia, SKAO is collaborating with CSIRO to operate and support the construction of the SKA-Low Telescope. SKA-Low teams will operate out of:

- Inyarrimanha Ilgari Bundara, the CSIRO Murchison Radio-astronomy Observatory on Wajarri Yamaji Country.
- Our Engineering Operations Centre on Nhanhangardi, Naaguja, Wilynyu 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 Computing and Software team delivers novel computing and technology solutions to meet the requirements of the SKA Project (read more here). The SKA Observatory is driven by software and the systems include:

- An integrated control system that controls and monitors over 2 million process variables.
- Data processing systems that process the vast quantities of data produced by the SKA Low, which will require a high-performance supercomputer capable of more than 100 petaflops and will result in hundreds of Petabytes of data archived per year.
- Science management systems to manage the interaction with scientists from around the world and ensure the huge amounts of data are made available to the appropriate people in a timely manner.
- Networks that move the data at rates exceeding Tbits/second across hundreds of km within the telescope and then shipping it to the scientific community using a world-wide 100 Gbit network.

The SKA-Low Web/UI Developer position will contribute to the development and support of user interfaces for operation of the SKA-Low telescope, including for telescope monitoring and control, planning and monitoring of observations, and visualisation of data products.

In the current construction phase, the position will work with teams around the world to develop and support these user interfaces. The construction project adheres to lean/agile principles, using

an SKA-tailored version of the Scaled Agile Framework (SAFe). This position will work within this framework as it evolves from construction to operations.

The SKA Telescope user interfaces are primarily written in Javascript, using Front-End frameworks such as React and NextJS, and Back-End development technologies such as Flask.

This role will require a willingness and ability to travel interstate and internationally as required, noting we work hard to accommodate personal arrangements.

CSIRO and the SKA Observatory value and respect difference, and we are committed to building an inclusive culture by creating an environment where you can balance a successful career with your commitments and interests outside of work. We believe that you will do your best at work if you have a work / life balance. We are open to discussing flexible working opportunities with this role being offered on a full-time, part-time or job share basis. Please raise your preference in your application.

Duties and Key Result Areas

- Develop user interface components in Front-End technologies such as Javascript and React, in accordance with the SKA quality framework and continuous integration processes working alongside users from Operations and Commissioning team.
- Integrate user interface modules with other system components, using technologies such as GraphQL.
- Participate in the activities of the Low Agile Release Train (Low ART) as a member of a distributed software team.
- Contribute to the maintenance and operations of telescope and observatory user interfaces, as part of a local software engineering team.
- Communicate openly, effectively, and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of SKAO and CSIRO's reputation.
- Adhere to the spirit and practice of both SKAO and CSIRO's Values as well as the Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Zero Harm goals.
- Other relevant duties as directed.

Selection Criteria

CSIRO is an Equal Opportunity employer working hard to recruit world-class talent that represents the diversity across our society. As part of our commitment to equitable employment outcomes for under-represented groups, preference will be given to Aboriginal and Torres Strait Islander people who meet the role criteria. CSIRO conscious inclusion practices are intended to constitute a special/equal opportunity/affirmative measure under section 8(1) of the Racial Discrimination Act 1975 (cth).

Essential

Under CSIRO policy only those who are able to demonstrate how they can meet the essential criteria may be appointed.

- Bachelor degree or higher in Computer Science/Engineering or equivalent programming experience
- Proficiency in Web / UI development using Javascript and/or Front-End technologies such as React or NextJS. The candidate is encouraged to provide evidence in the form of publicly available code where possible.

- Familiarity with modern development practices, including version control, CI/CD, testing, documentation, and code quality aspects.

Desirable

- Knowledge of User Experience techniques.
- Familiarity with working on GNU/Linux platforms.
- Awareness of virtualisation, containerisation and orchestration technologies.

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:** 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.
- **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:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
- **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

- The successful candidate will be required to gain a National Police Clearance or equivalent. This will be conducted by CSIRO, Talent Services, through our provider HireRight. Please note that individuals 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/](https://ielts.com.au/)).

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](#).

CSIRO and SKAO Values

Visit [CSIRO Online](#) and [Space and Astronomy](#) and [SKAO online](#) and [SKAO Location](#) for more information. In your application and at interview you will need to demonstrate behaviours aligned to our values of:

CSIRO	SKA Observatory
<ul style="list-style-type: none"> • People First • Further Together • Making it Real • Trusted 	<ul style="list-style-type: none"> • Diversity and Inclusion • Excellence • Collaboration • Creativity and Innovation • Sustainability and Safety