# Position Description

## General Management – CSOF7

The following information is for applicants

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| Advertised Job Title**:** | Principal Software Engineer |
| Job Reference: | 60527 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | Australian Citizens Only |
| Percentage of Client Focus - Internal: | 70% |
| Percentage of Client Focus - External: | 30% |
| Reports to the: | IC Global Lead |
| Number of Direct Reports: | 1 |
| Name and Contact Details For Applicant Enquiries: | If after reading the position details above you require more information please contact: **Zoe Piper**via email: Zoe.Piper@csiro.au or phone: **+61 2 6218 3743** |
| 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 IC Global team are responsible for the development, delivery and management of the IC Global Platform Suite, including:

* [Expert Connect](https://expertconnect.global/)
* [Innovation Challenges marketplace](https://innovationchallenges.global/)
* [InnovationMap](https://innovationmap.global/)

The Principal Software Engineer (working with the Senior Software Engineer and other collaborators) is responsible for designing, developing and maintaining the IC Global Platform Suite.

## Duties and Key Result Areas:

* Analyse the business needs and design appropriate technical architecture
* Build and deliver elegant, efficient and readable code
* Resolve production issues, conforming to defined software engineering and configuration management practices
* Lead collaborations with internal and external stakeholders on large-scale entity resolution problems
* Design and build beautiful user interfaces and to ensure their implementation is efficient, elegant and maintainable.
* Design and deliver internal and client-hosted infrastructure
* Build and manage software delivery, systems integration, and developer support tools
* Engage with clients to develop integration strategies for custom system deployments
* Contribute to ongoing process improvement activities
* Collaborate effectively with research, engineering and business teams CSIRO to ensure that project goals and CSIRO’s strategic goals are achieved
* Communicate and collaborate with external clients, anticipating and resolving architectural and technical problems
* Develop and implement project plans including analysing, validating and reporting results within the projects constraints
* Initiate projects in consultation with stakeholders, secure the necessary resources and consider the future budget impacts
* Maintaining high ethical and performance standards
* Adhere to the spirit and practice of CSIRO's Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Any other duties, as directed.

## CSIRO Competencies:

1. **Teamwork and Collaboration: Creates and fosters an environment in which there is a high level of cooperation within and between teams. Facilitates positive team relationships to build organisational interaction across CSIRO.**
2. **Influence and Communication: Uses complex influencing strategies, for example, assembling strategic coalitions, building behind the scenes support and the tactical use of information to gain support.**
3. **Resource Management/Leadership: Provides leadership that fosters an environment that encourages new ideas and provides support for the development of emerging skills. Creates trust by displaying consistency and understanding through integrity and patience. Plans, seeks, allocates and monitors resources to achieve outcomes.**
4. **Judgement and Problem Solving:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
5. **Independence: Commits significant resources in the face of uncertainty and takes calculated risks to improve performance and achieve challenging goals. Uses personal energy to drive change strategies. Formulates and implements contingency plans to minimise the impact of potential risks. Accepts personal responsibility for the outcomes of decisions/risks taken.**
6. **Adaptability:** Is flexible in response to external change or when faced with external constraints. Identifies and promotes the opportunities arising as a result of change.

## Selection Criteria:

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

1. Experience in building/designing high quality solutions to complex engineering problems
2. Highly developed technical skills in Javascript and Python
3. Strong experience writing NodeJS, ReactJS and NextJS applications with typescript
4. Experience with AWS Elastic Beanstalk and Elasticsearch
5. Experience maintaining open source and internal source code repositories

## Desirable Criteria:

1. Experience working from the UI all the way through to the database
2. Familiarity with Apache NiFi or a commitment to develop technical skills in this space
3. Skills in grafana, Jenkins, Docker, RESTful/SOAP APIs, 3scale and Swagger will be viewed favourably
4. Experience in application and infrastructure monitoring setup and development of dashboards
5. Ability to design and set-up AWS-based cloud infrastructure (IaaS) to support project delivery
6. Ability to maintain open source and internal source code repositories
7. Experience in handling high severity incidents in a 24\*7 production support environment.
8. Demonstrated ability to develop system documentation
9. Experience or interest in entity resolution, identity resolution, or entity extraction
10. Interest in machine learning and graph analytics
11. Interest in functional programming languages
12. Ability to overcome technical road-blocks, solve problems and make sound well considered decisions
13. Demonstrated ability to think creatively, work collaboratively and perform tasks under minimal supervision
14. Demonstrated ability to take ownership and lead projects, provide technical direction and supervision, present ideas and foster creativity in others

## Special Requirements:

Ability to get a security clearance if required.

## About CSIRO:

**CSIRO: Solving the greatest challenges through innovative science and technology.** [Discover more about CSIRO](http://www.csiro.au/)

**CSIRO Human Resources** provides support and leadership on people issues to leaders and staff across CSIRO. Our goal is to develop high performing teams working across boundaries.