

# Position Description



Position title:	Senior Systems Analyst Programmer
School/Directorate/VCO:	Centre for eResearch and Digital Innovation Deputy Vice Chancellor (Research and Innovation)
Campus:	Mt Helen Campus (Greenhill Enterprise Centre)
Classification:	Within the HEW Level 8 range
Time fraction:	Full time
Employment mode:	Fixed-term appointment
Probationary period:	This appointment is offered subject to the successful completion of a probationary period.
Further information from:	Associate Professor Helen Thompson, Director, Centre for eResearch and Digital Innovation Telephone: (03) 5327 9418 E-mail: <a href="mailto:h.thompson@federation.edu.au">h.thompson@federation.edu.au</a>
Recruitment number:	850908

## Background

At Federation University, we are driven to make a real difference to the lives of every student, and to the communities we serve.

We are one of Australia's oldest universities, known today for our modern approach to teaching and learning. For 150 years, we have been reaching out to new communities, steadily building a generation of independent thinkers united in the knowledge that they are greater together.

Across our university and TAFE campuses in Ballarat, Berwick, Brisbane, Gippsland, and the Wimmera, we deliver world-class education and facilities. With the largest network of campuses across Victoria, as well as a growing Brisbane base, we are uniquely positioned to provide pathways from vocational education and skills training at Federation TAFE through to higher education.

## Portfolio

The Centre for eResearch and Digital Innovation (CeRDI) at Federation University Australia is a global leader in data interoperability and has developed many award-winning web-based spatial information and knowledge portals which provide public access to data sets that are often hidden from view.

CeRDI has an established national and international profile for its eResearch collaborations across a range of diverse disciplines. We focus on the development of interoperable spatial knowledge systems that meet the needs of our

research investors. Most of these systems are collaboratively designed and developed to federate qualitative and quantitative data from disparate sources, both in the public and private sectors. The data federations are almost always provisioned as purpose-built web-based portals that are used for data discovery, dynamic modelling and visualisation, decision support, and knowledge dissemination.

### Position summary

The Senior Systems Analyst Programmer is responsible for leading the design, development and maintenance of CeRDI's innovative digital projects. The role requires a very strong technical capability to implement solutions and diagnose problems across CeRDI projects and technologies.

The Senior Systems Analyst Programmer will work across the software development lifecycle and may also be required to liaise with stakeholders to understand project requirements, to develop technical specifications, to mentor junior staff, contribute to continuous improvement of CeRDI's platforms and manage projects to completion.

This position may require travel to other University campuses and to partner locations across Australia.

### Key responsibilities

1. The primary responsibility of the role is to lead the design, development and enhancement of innovative digital projects throughout the software development life cycle.
2. Undertake analysis of project requirements by:
  - researching and evaluating stakeholder and user needs using structured methodologies;
  - developing and contributing technical requirements information to requests for tenders, research submission and grant funding;
  - defining project scope, goals and deliverables that support organisational goals
  - providing strategic advice to CeRDI management, project partners and stakeholders on proposed projects;
  - determining resource requirements including development time associated with proposed and assigned projects.
3. Design technical solutions and implementation plans following CeRDI's established project management methodologies to:
  - design system and application architecture;
  - develop technical implementation plans as part of overall project management;
  - document communication, quality management and risk management plans.
4. Lead project development and implementation to:
  - develop well structured code to fulfil project requirements using a range of web-based technologies, including, but not limited to PHP, MySQL, PostgreSQL and Javascript;
  - identify opportunities to develop libraries and/or microservices to improve efficiency and maintainability across CeRDI projects;
  - monitor and report on project progress and risks;
  - ensure development effort, and infrastructure resources are allocated and monitored in accordance with overall project management;
  - contribute to overall project reporting processes;
  - ensure project partners and stakeholders are actively engaged throughout project delivery; and
  - monitor projects to ensure successful progress against overall project milestones, objectives and budgets.
5. Ensure developed solutions meet technical standards and quality measures:
  - provide analytical support;

- develop and run test plans;
  - undertake unit, functional, performance and security testing of completed code;
6. Provide ongoing support for the application and enact continuous improvement:
- provide analytical support to solve problem reports;
  - develop and maintain technical and end user documentation
  - recommend re-engineered business processes to improve efficiency, reduce manual inputs, enhance workflows, automate data management and improve overall business intelligence and reporting;
  - apply continuous improvement in areas including security, user interface design and accessibility.
7. Reflect and embed the University's strategic purpose, priorities and goals when exercising the responsibilities of this position. For a more complete understanding and further information please access the Strategic Plan at: <https://federation.edu.au/strategy/strategic-plan>
8. Undertake the responsibilities of the position adhering to:
- The Staff and Child Safe Codes of Conduct and Conflict of Interest Policy and Procedure;
  - Equal Opportunity and anti-discrimination legislation and requirements;
  - the requirements for the inclusion of people with disabilities in work and study;
  - Occupational Health and Safety (OH&S) legislation and requirements; and
  - Public Records Office of Victoria (PROV) legislation.

### Level of responsibility

The Senior Systems Analyst Programmer reports to the Director, CeRDI and works with a degree of autonomy under the broad direction of the Manager Technical Projects.

The position has responsibility for identifying and analysing researcher and partner needs, making informed recommendations to optimise the utilisation of technologies and for the completion of technology projects on time and within budget. The position requires highly developed problem-solving skills and will exercise judgement and provide justification to support the efficient and effective completion, maintenance, modification and continuous improvement of CeRDI projects.

The Senior Systems Analyst Programmer will provide strategic advice to the Director, CeRDI and Manager Technical Projects in the areas of programming standards, coding efficiencies, security measures, accessibility compliance.

### Training and qualifications

Postgraduate qualifications in Information Technology or progress towards postgraduate qualifications and extensive relevant experience; or extensive experience and development experience; or an equivalent combination of relevant experience and/or education/training.

A Current Covid-19 vaccination certificate.

### Position and Organisational relationships

The Senior Systems Analyst Programmer is responsible for establishing and maintaining productive working relationships with a broad and diverse range of CeRDI partners to ensure ICT and eResearch services meet research objectives, partner and stakeholder needs.

The Senior Systems Analyst Programmer will work closely with the Manager, Technical Projects, Project Managers, Research Managers and external partners during the planning and implementation of projects.

The Senior Systems Analyst Programmer will also establish and maintain productive working relationships with CeRDI technical, research and support staff to ensure the effective and efficient resolution of research management and technology delivery issues.

### Key selection criteria

Applicants must demonstrate they are able to undertake the inherent responsibilities of the position as contained in the position description and are able to meet the following key selection criteria:

1. Postgraduate qualifications in Information Technology or progress towards postgraduate qualifications and extensive relevant experience; or extensive experience and management expertise; or an equivalent combination of relevant experience and/or education and training.
2. Demonstrated expertise in leading the design and development of complex data-driven web applications so they perform the required functions with integrity, efficiency and reliability.
3. Demonstrated extensive experience developing web applications utilising the following skills and technologies:

Required technical skills:

- Expert knowledge of PHP 7 and PHP 8 – recent experience with Laravel highly regarded
- Expert knowledge of MySQL and/or PostgreSQL/PostGIS.
- Advanced knowledge of HTML, CSS and Javascript
- Comfortable working with Git

Desirable technical skills:

- Experience with front-end libraries (Bootstrap, Vue.js)
  - Experience with Atlassian products (Jira, Confluence, Bitbucket)
  - Comfortable working in a Linux command line
  - Experience working with geospatial data
  - Experience with Python
  - Experience implementing and consuming APIs and web services
4. Demonstrated ability in requirement gathering, documenting solution specifications, and writing functional requirements for technical teams (desirable business analysis skills).
  5. Demonstrated ability in project scoping, planning and management, including demonstrated experience in managing teams to achieve quality and timely objectives (desirable project management skills).
  6. Excellent communication, interpersonal and organisation skills, including written, verbal and electronic communication.
  7. Ability to work independently as well as cooperatively within a team environment.
  8. Demonstrated alignment with the University's commitment to child safety.

*The University reserves the right to invite applications and to make no appointment.*