Position description

Position title:	Senior Software Engineer
Institute/School/Centre/Directorate/VCO:	Health Innovation and Transformation Centre
Campus:	Mt Helen or Gippland Campus. Travel between campuses may be required.
Classification:	Within the HEW Level 8 range
Time fraction:	Full-time
Employment mode:	Fixed-term employment
Reason for fixed term:	Research based
Probation period:	This appointment is offered subject to the successful completion of a probationary period.
Further information from:	Professor Britt Klein, Robert HT Smith Professor in Health Informatics Telephone: (03) 5327 6717 Email: b.klein@federation.edu.au A/Professor Cameron Foale, Head of Information Technology Telephone: 03 5327 9442 Email: c.foale@federation.edu.au
Recruitment number:	JR100976

Position summary

The HITC Senior Software Engineer is primarily responsible for the technical build of Digital Health platforms including the development of a suite of interventions for increasing digital literacy and wellbeing amongst older adult workers and their clients as part of the ARC ITTC Optimal Ageing project; and the development of an intervention program to promote the optimal transition of older adults into residential aged care facilities under an Ian Potter Foundation grant. The above platforms and interventions are likely to be primarily web-based, using a combination of off-the-shelf and bespoke development, but may involve some mobile application development. The role also requires management, monitoring, and systems administration of cloud-based deployment through AWS or similar.

This role involves ensuring that the digital health intervention products are developed in an efficient timeframe aligned to relevant project milestones, that they perform all the functions for which they are designed with integrity, efficiency and reliability, that they are secure and operate with optimal availability to users, that efficiencies in the development cycle are implemented as a result of ongoing research and that process enhancements are utilised through future HITC projects.

The Senior Software Engineer will primarily work with internal HITC ARC ITTC and Ian Potter Foundation project grant team members and external project teams, to develop technology specifications and implement platform requirements. This role may require travel to other FedUni University campuses and on occasion, to our project partner sites.

Portfolio

The Health Innovation and Transformation Centre (HITC) work in collaboration with external funding partners and collaborators to undertake development and implementation of Digital Intervention Services.

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, Gippsland, and the Wimmera, we deliver world-class education and facilities. With the largest network of campuses across Victoria, we are uniquely positioned to provide pathways from vocational education and skills training at Federation TAFE through to higher education.

To be successful at Federation University you must be willing to enthusiastically embrace the University's ambition as expressed in the 2021–2025 University Strategic Plan and share the University's values of:

INCLUSION, we celebrate our diversity, particularly valuing Aboriginal and Torres Strait Islander cultural heritage, knowledge and perspectives.

INNOVATION, we are agile and responsive to emerging opportunities.

EXCELLENCE, we act with integrity and take responsibility for achieving high standards.

EMPOWERMENT, we create a supportive environment to take informed risks in pursuit of success.

COLLABORATION, we establish genuine partnerships built on shared goals.

Key responsibilities

1. Liaise with the Project Investigators, internal and external project managers as well as key project research staff to ensure the successful development and implementation of the digital health intervention platforms.

2. Develop and implement the ARC ITTC and Ian Potter project grants digital intervention products in cooperation with external partners, project researchers and developers and graphic designers. This will also involve developing, testing, managing, deploying, and evaluating software.

3. Research and provide expert advice on industry best practice, industry innovations, database design, coding efficiencies and security measures.

4. Manage all databases and applications configured to run with the HITC digital platforms, ensuring servers are created and operating correctly, securely and efficiently, ensuring installation upgrade, maintenance, support, monitoring and problem resolution is undertaken as required.

5. Apply an appropriate software development methodology to ensure timely delivery of software artefacts, and to provide estimates of time and resources required for programming tasks and monitor progress.

6. Manage prompt attention to requests for system enhancements and modifications which are within the scope of the agreed services.

7. Create and maintain technical documentation that fully defines all application code, database structures, and systems architecture, for the use of other technical staff.

8. Ensure developed solutions meet technical standards and quality measures by providing analytical support, developing test plans for QA testing and undertaking unit, functional and performance testing of completed code, as well as engaging with independent pen-testing processes.

9. Contribute to the co-design activities associated with the builds alongside other project team members.

10. Ensure developed applications meet W3C WCAG accessibility guidelines, are W3C standards compliant and in turn appear consistently across a range of internet browsers.

11. Perform other IT tasks, as requested by the Chief Investigators from the ARC ITTC and Ian Potter Foundation project grants.

12. Reflect and embed the University's strategic plan, and operational purpose, priorities, and goals.

13. Embed effective risk management practices to ensure continuous service delivery. Participate in training and exercises to remain prepared for potential disruptions.

14. Undertaking the responsibilities of the position adhering to:

- the Staff Code of Conduct, Child Safe Code 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 (OHS) legislation and requirements; and

- Public Records Office of Victoria (PROV) legislation.

Level of supervision and responsibility

The Senior Software Engineer receives broad direction and reports to the Robert HT Smith Professor in Health Informatics, and Head of Information Technology. The position is responsible for the complete development life cycle of digital health intervention tools for the ARC ITTC 'Optimal Ageing' and Ian Potter Foundation grant projects. The Senior Software Engineer is responsible for software design, development, testing and evaluation, performance, security and accessibility compliance.

The position has responsibility for identifying and analysing research and partner needs, and making informed recommendations to optimise the utilisation of technologies.

The position requires highly developed problem-solving, and will exercise judgement and provide justification to support the efficient and effective development, maintenance, modification and continuous improvement of project applications throughout the complete development cycle.

Position and organisational relationships

The Senior Software Engineer receives broad supervision and strategic direction from the Project Chief Investigators.

The Senior Software Engineer is responsible for establishing and maintaining productive working relationships, will work closely with internal and external project leadership groups and other project members throughout the project.

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:

Training and qualifications

1. Completion of:

- 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.

Experience, knowledge and attributes

2. Understanding and working knowledge of WordPress intervention sites and bespoke plugin creation.

3. Demonstrated ability to develop, test, deploy, and maintain high-quality complex modern web applications in an AWS cloud environment.

4. Demonstrated experience with digital mental health applications and interventions, or related tools, particularly with regards to privacy and data sovereignty.

5. Demonstrated expertise in both traditional and emerging web-related technologies and web application design, including HTML5, CSS design systems, JavaScript or TypeScript, reactive frameworks such as Next.js or SvelteKit, WordPress/PHP, and excellent working knowledge of Linux-based systems including high-level

management skills in relation to server management, database optimisation, load management, performance optimisation, security best practices, and reliability/resilience approaches. Additionally, experience with Django and cross-platform mobile application development will be highly-regarded.

6. Demonstrated expertise in relevant programming languages such as PHP, JavaScript or TypeScript, and Python, with advanced knowledge of database design and experience and skills in developing for relational and NoSQL database systems.

7. Demonstrated systems design skills and expertise in systems analysis and design for development of solutions for software applications and systems, consistent with business requirements.

8. Excellent communication, interpersonal and organisation skills, including written, verbal and electronic communication.

9. Ability to work independently as well as cooperatively within a team environment.

10. Demonstrated alignment with the University's commitment to child safety.

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

It is not the intention of the position description to limit the scope or accountabilities of the position but to highlight the most important aspects of the position. The aspects mentioned above may be altered in accordance with the changing requirements of the role.