

Position Description – Software Engineer

Position Details

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| Position Title: | Software Engineer |
| Position Number: | New |
| College/Portfolio: | Science, Engineering and Health |
| School/Group: | School of Engineering |
| Campus Location: | Based at the city campus, but may be required to work and/or be based at other campuses of the University. |
| Classification: | HEW 8.1 |
| Employment Type: | Fixed Term (2 years) |
| Time Fraction: | 1.0 |

RMIT University

RMIT is a global university of technology, design and enterprise in which teaching, research and engagement are central to achieving positive impact and creating life-changing experiences for our students.

One of Australia's original educational institutions founded in 1887, RMIT University now has 83,000 students including 12,000 at postgraduate level.

The University enjoys an international reputation for excellence in professional and vocational education, applied and innovative research, and engagement with the needs of industry and the community.

With three campuses in Melbourne (City, Brunswick and Bundoora), two in Vietnam (Hanoi and Ho Chi Minh City) and a centre in Barcelona, Spain, RMIT is a truly global university. RMIT also offers programs through partners in Singapore, Hong Kong, mainland China, Indonesia and Sri Lanka, and enjoys research and industry partnerships on every continent.

RMIT prides itself on the strong industry links it has forged over its 130-year history. Collaboration with industry is integral to the University's leadership in applied research and education, and to the development of highly skilled, globally focused graduates.

We are a 5-Star university under the QS Stars international evaluation system, and are 16th in the world among universities less than 50 years old (2016–17 QS Top 50 Under 50 index).

In the 2016 QS World University Rankings by Subject, RMIT is 16th in the world (highest ranked in Australia) in Art and Design, and 36th in the world (fourth highest in Australia) in Architecture and the Built Environment. We are also among the world's top 100 universities in Engineering (Civil and Structural; Electrical and Electronic; and Mechanical, Mechanical, Aeronautical and Manufacturing); Accounting and Finance; and Business and Management Studies).

Our research was ranked among the best in the world in the 2015 Excellence in Research for Australia evaluation. RMIT was rated "well above world standard" in 13 fields and "above world standard" in a further nine fields.

www.rmit.edu.au

College/Portfolio/Group

The College comprises four Schools delivering a broad range of programs in science, engineering, health and technology at apprenticeship, certificate, bachelor, masters and PhD levels. Many programs articulate between vocational and higher education, creating pathways for further study. There is a vibrant research community

attracting funding from a range of government and industry sources. The College has an annual income of approximately \$425 million and employs over 1,000 staff providing on and offshore programs to approximately 20,000 students.

School of Engineering

The School of Engineering comprises a diverse range of disciplines: Aerospace Engineering & Aviation; Chemical & Environmental Engineering; Civil & Infrastructure Engineering; Electrical & Biomedical Engineering; Electronic & Telecommunication Engineering; Manufacturing, Materials & Mechatronic Engineering; Mechanical & Automotive Engineering.

As a top 100 university in the world for engineering (2015 QS Rankings by Faculty; Engineering and Technology), RMIT Engineering provides students with work-relevant education programs, access to excellent research facilities and opportunities to engage in creative real-world project work through robust relations with local and international industry leaders.

RMIT Engineering's education is based on innovation and creativity. Key discipline areas in the School of Engineering provide programs with flexible pathways to global careers or postgraduate research.

Details relating to the School/College Office may be found on at: www.rmit.edu.au/seh

Position Summary

The primary objective of the position is to support the delivery of research and development within the Just-in-Time implants project supported by the IMCRC and involving Stryker Australia, St Vincents Hospital and University of Technology Sydney. The position is based within the RMIT Centre for Additive Manufacturing. The candidate will work closely with research staff and partners at Stryker, being primarily responsible for translating prototype code and algorithms into production code. A high level of proficiency programming C++ is required, as well as a high level of understanding of modern software design methodologies. The candidate will be required to consult with research, industrial and clinical partners to develop and implement appropriate workflows within existing software frameworks. The candidate will be required to develop software according to defined coding standards, including the use of versioning and code review tools. Experience developing software according to the medical device standards IEC 62304 "Software lifecycle for medical devices" and IEC 62366 "Usability in medical devices" and experience with scripting languages including MATLAB and python will be viewed favourably. The candidate will be provided with the opportunity to maintain and advance their research and/or professional capabilities in the area of expertise. They will contribute to the academic output of the School, assist with postgraduate and undergraduate student mentoring and work collaboratively and collegially with fellow researchers in the Centre for Additive Manufacturing.

Reporting Line

Reports to: Associate Dean, Manufacturing, Materials and Mechatronics Engineering

Day to day reporting: Project Leader, Professor Milan Brandt

Direct reports: Nil

Organisational Accountabilities

RMIT University is committed to the health, safety and wellbeing of its staff. RMIT and its staff must comply with a range of statutory requirements, including equal opportunity, occupational health and safety, privacy and trade practice. RMIT also expects staff to comply with its policy and procedures, which relate to statutory requirements and our ways of working.

Appointees are accountable for completing training on these matters and ensuring their knowledge and the knowledge of their staff is up to date.

Key Accountabilities

1. Provide general software development expertise in support of the overall project.
2. Translation and optimization of prototype code to production code within existing software platforms, according to the coding standards of industrial partners.
3. Consultation with research and industrial partners to define and implement overall software workflows and architectures.

4. Contribute to the successful completion of the project by completing assigned work at the required level and within agreed timeframes.
5. Participate in annual work planning and performance management processes.
6. Perform other duties that may be required for the efficient operation of the research team.
7. Communicate research outcomes through high quality papers/journal articles, delivery of seminars and conference attendance.
8. Participate in the teaching and learning program appropriate to areas of expertise.

Key Selection Criteria

Necessary:

1. High level of proficiency programming in C++
2. High level of understanding of modern software design and development methodologies, including software architecture and design experience.
3. Experience with git, svn, perforce or other versioning protocols.
4. Experience using software peer review tools.
5. Experience using software testing tools and understanding of testing methods, including unit and functional testing.
6. Strong understanding of modern SCM (software configuration management).
7. Ability to work effectively as part of a multi-disciplinary team.

Desired:

1. Image processing experience including the utilisation of open source tool kits.
2. User interface development experience, particularly the use of qt.
3. Experience developing software according to the medical device standards IEC 62304 "Software lifecycle for medical devices" and IEC 62366 "Usability in medical devices".
4. Experience with scripting languages including MATLAB and python.

Qualifications

Mandatory: Degree in computer science or software engineering.

Appointment to this position is subject to passing a Working with Children check

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| Endorsed: | Signature: Name: Prof. Mark Easton Title: Associate Dean, Materials, Mechanical and Mechatronics Date:12/09/2019 | Approved: | Signature: Name: Prof Colin Kestell Title: Acting Executive Dean, Engineering Date: 23/09/2019 |
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