CANDIDATE BRIEF

Research Software Engineer, IT

Salary: Grade 7 (£33,199 - £39,609 p.a.)

Reference: CSUIT1269

We will consider job share and flexible working arrangements

Research Software Engineer
IT, Research IT

Are you interested in supporting the computational research of academics in one of the leading Universities in the world? Would you like to develop a career in the emerging field of Research Software Engineering?

As a Research Software Engineer (RSE) you will be responsible for providing a technical software development and support service across a range of programming languages to all members of the academic community at the University.

Based in the IT Service, your role will encompass a range of software development, high performance and cloud computing related activities including user support, documentation and training. You will also collaborate with other members of the service to support the work of researchers to enhance research outcomes, improve impact and accelerate productivity.

What does the role entail?

As a Research Software Engineer, your main duties will include:

- Development, optimisation and debugging of user-written code and research software in a range of programming languages;
- Troubleshooting and resolving a range of problems which could occur at any stage of the research process;
- Providing expert advice, guidance and training to members of the research community who are using or wish to access the facilities provided by the IT service;
- Identifying enhancements to the service provision, proposing solutions, and leading these through to successful delivery;
- Staying abreast of developments in research computing specifically and the IT industry more generally to enable the sharing of relevant information with researchers in order to improve outcomes;
- Maintaining and developing your knowledge of subject area fundamentals within research domains and develop knowledge of new advances in research computing;
- Undertaking outreach activities to better understand the needs of and improve the engagement with the research community;

- Planning and allocating your own time and the time of others where appropriate, to ensure efficient deployment of resources, planning and prioritising work in line with the aims, objectives and priorities of research computing and the wider IT Service;
- Using your knowledge and experience to help shape the strategic long-term plans for research software engineering, research computing and the IT Service;
- Building and maintaining relationships within the IT Service, with other Research Software Engineers across the University and the wider academic community, relevant professional societies, research funding bodies and project partners.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Research Software Engineer you will have:
- Experience of programming using modern programming languages such as Python, Fortran, R, MATLAB, Julia, C++;
- Experience in applying software development techniques, such as designing, debugging and optimising code, testing and version control;
- Experience with at least one major Linux distribution including knowledge of shell scripting and the ability to install, maintain and configure research software including that which is provided as source code;
- The ability to solve problems with technologies, languages and systems that you might not have seen before;
- Strong initiative, with excellent organisational, planning and self-management skills, including the ability to work accurately and carefully, manage and complete projects to agreed deadlines and deliver high quality work;
- Effective communication and interpersonal skills, working and engaging with a diverse range of collaborators / stakeholders including the ability to explain technical problems to non-specialists.

You may also have:
- Parallel and / or High Performance Computing experience;
- High Performance Data ("Big Data") analytics experience;
- Advanced knowledge of applied mathematics and numerical computing;
- Experience of working in a service-oriented environment;
- Experience in designing and delivering training courses;
- Research experience at Master's level or equivalent.

How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by **23.59** (UK time) on the closing date.

Contact information

To explore the post further or for any queries you may have, please contact:

Mark Conmy, Head of Research IT
Tel: +44 (0) 113 343 7285
Email: M.P.Conmy@leeds.ac.uk

Additional information

Find out more about RSE and HPC at the University of Leeds.

Since its inception in 2012, the role of the Research Software Engineer has redefined how computational research is supported in academia. Research Software Engineers (RSEs) are the people who make computational research possible [1]

Leeds is committed to invest in hardware upgrades for research computing infrastructure on a regular basis and to provide ongoing technical expertise and support to the academic community. We currently have over 10,000 CPU cores as part of our HPC clusters on-site along with a range of GPUs and are also conducting experiments in using the public cloud to provide secure HPC for sensitive data, data analytics and machine learning.

References

1. Research Software Engineers: State of the Nation Report 2017 https://zenodo.org/record/495360#.W17tPflKg2x

Working at Leeds
You can find out more about our generous benefits package and more about what it is like to work at the University and live in the Leeds area on our Working at Leeds information page.

A diverse workforce
The University of Leeds holds the Athena SWAN Bronze Award in recognition of our success in recruiting, retaining and developing/promoting women in Science, Technology, Engineering, Medicine and Mathematics (STEMM). We also offer a number of family-friendly employment practices that are designed to enable a good work-life balance.

Candidates with disabilities
Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our Accessibility information page or by getting in touch with us at disclosure@leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974
A criminal record check is not required for this position, however, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information.