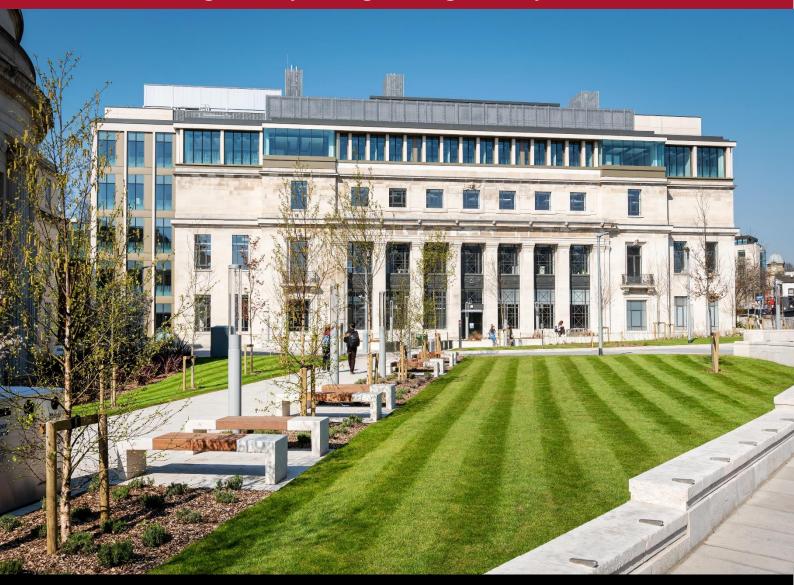# UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Assistant or Research Fellow in Software Engineering and Machine Learning, Faculty of Engineering and Physical Sciences

Salary: Grade 6 (£32,296 – £37,999 p.a.) or Grade 7 (£39,105 – £46,485 p.a.)

Reference: EPSCP1160

Location: Leeds campus (with scope for hybrid working)

Closing date: Sunday 13 October 2024

Fixed-term for up to 18 months

We are open to discussing flexible working arrangements

Research Assistant or Research Fellow in Software Engineering and Machine Learning, School of Computing.

Are you an early-career researcher looking for your first challenge, or are you an experienced researcher looking for your next challenge? Are you passionate about making computers faster and more reliable? Do you have experience in machine learning applications for software performance optimisation and want to join a world-leading research group recognised for its advancements in this field?

You will play a leading role in projects that expand our expertise in machine learning-based code optimisation. You will develop novel techniques that harness the power of machine learning to create optimisation strategies for compilers and memory management libraries for next-generation computing hardware.

We are looking for a candidate with a strong background in computer science, a particular interest in software engineering and low-level systems programming, and a desire to perform cutting-edge research and publish in top conferences and journals.

If you want to be part of a team that is leading ground-breaking research and development in software optimisation, we encourage you to apply. As a member of our team, you will have the chance to collaborate with renowned researchers from other universities and industries worldwide. Additionally, our group maintains strong ties with other prominent companies and research groups, enabling extensive opportunities for career development.

What does the role entail?

As a Grade 6 Research Assistant, your main duties will include:
- Supporting the development of software infrastructures, demonstration systems and documentation according to the project objectives;
- Collaborating with the project partner and assisting in the coordination of development activities within the project;
- Ensuring good progress is maintained and work is undertaken in a systematic way that is well documented;
- Supporting research activities, including contributing to research results and outputs and to the generation of original ideas, ensuring a successful programme of investigation;
- Writing reports, undertaking literature reviews and preparing papers for publication, with guidance as necessary;
- Collating and analysing data to inform the direction and progression of the research project;
- Participating in the research/project group and presenting research output where appropriate;
- Working both independently and as part of a larger team of researchers and stakeholders;
- Contributing to the research culture of the School, where appropriate;
- Continually update your knowledge, understanding, and skills in the research field.

In addition to the above, as a Grade 7 Research Fellow your main duties will also include:
- Leading the modelling, algorithm development and architecture design of the main software infrastructure;
- Generating and pursuing independent and original research ideas in the appropriate subject area;
- Developing research objectives and proposals and contributing to setting the direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- Making a significant contribution to the dissemination of research results by publication in leading peer-reviewed journals and by presentation at national and international meetings;

- Working independently and as part of a larger team of researchers, both internally and externally, to develop new research links and collaborations and engage in knowledge transfer activities where appropriate;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own research;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

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 Grade 6 Research Assistant, you will have:
- A first or upper-second-class undergraduate or master's degree in computer science;
- A strong background in low-level systems programming;
- A good understanding of computer architectures;
- Experience in algorithm design and implementation for optimising software;
- Good interpersonal and communication skills, both written and verbal and the ability to communicate effectively with a wide range of stakeholders;
- Good time management and planning skills, with the ability to meet tight deadlines and manage competing demands effectively without close support.
- A proven ability to work well both independently and in a team.
- The ability to work accurately, unsupervised and use your own initiative.

As a Grade 7 Research Fellow, you will have:
- A PhD (or have submitted your thesis before taking up the role) in Computer Science;
- Strong in software engineering and low-level systems programming;
- Experience in algorithm design and implementation for software optimisation and reliability;
- A good understanding of computer architectures;

- Excellent communication skills both written and verbal, and the ability to communicate your research at national and international conferences;
- A developing track record of peer-reviewed publications in international journals;
- A strong commitment to your own continuous professional development.

At both grades, you may also have:
- Working experience in machine learning and deep learning;
- Working experience in compilers or operating systems.

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 advertised closing date.

Contact information

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

Professor Zheng Wang, Professor of Intelligent Software Technology
Tel: +44 (0)113 343 1077
Email: Z.Wang5@leeds.ac.uk

Additional information

Faculty and School Information
Further information is available on the research and teaching activities of the Faculty of Engineering & Physical Sciences, and the School of Computing.

A diverse workforce
As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Engineering and Physical Sciences we are dedicated to diversifying our community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to

Black, Asian and ethnically diverse people; people who identify as LGBT+; and people with disabilities. Candidates will always be selected based on merit and ability.

The Faculty of Engineering and Physical Sciences are proud to have been awarded the Athena SWAN Silver Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our equality and inclusion webpage provides more information.

Working at Leeds
We are a campus-based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our Working at Leeds information page.

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

Salary Requirements of the Skilled Worker Visa Route
Please note that due to Home Office visa requirements, this role may only be suitable for first-time Skilled Worker visa applicants if they are eligible for salary concessions. For more information, please visit: www.gov.uk/skilled-worker-visa

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information, please visit: https://www.gov.uk/global-talent.

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 page.