



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

**Research Fellow in Augmented Reality in Surgery,
Faculty of Engineering and Physical Sciences**



Salary: Grade 7 (£39,105 – £46,485 p.a.)

Reference: EPSCP1162

Closing date: Wednesday 30 October 2024

Fixed-term for 6 months

We are open to discussing flexible working arrangements

Research Fellow in Augmented Reality in Surgery, School of Computer Science.

Are you an early researcher interested in developing mixed reality for healthcare? Are you an aspiring researcher willing to contribute towards digital transformation of healthcare benefitting patients by making the clinical interventions more safer, faster and effective?

The project is aimed at applying current advancements in computer vision and graphics to enable near real-time interaction for surgical planning and decision making. The project will provide an opportunity to collaboratively work with computational scientists and surgeons exploring novel ways to transform research and practice in surgical care.

The project is internally funded by NIHR Leeds Biomedical Research Centre. The project is initially intended to develop state-of-the-art augmented reality methods in surgery. These algorithms will then be used to develop a rendering software for surgical planning. You will investigate different approaches and find novel ways to improve the current limitations in this field.

You will be a leading researcher in Dr Sharib Ali's group focusing on computer vision methods for medicine and surgery. You will have the opportunity to collaborate with Rafael Kuffner dos Anjos (project team member of the Visualisation and Computer Graphics group) and Shahid Farid (project co-lead at Leeds Teaching Hospital NHS Trust) to develop and test the system.

What does the role entail?

As a Research Fellow, your main duties will include:

- 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 Research Fellow, you will have:

- A PhD (or have submitted your thesis before taking up the role) in Computer Science, Engineering or a closely allied discipline;
- A strong background in computer vision or computer graphics;
- Experience with Python/C++;
- Good time management and planning skills, with the ability to meet tight deadlines and manage competing demands effectively without close support;
- A developing track record of peer-reviewed publications in international journals;
- Excellent communication skills both written and verbal, and the ability to communicate your research at national and international conferences;
- A proven ability to work well both independently and in a team;
- A strong commitment to your own continuous professional development.

You may also have:

- Experience of pursuing external funding to support research;
- Prior experience working with VR/XR software's such as Blender or Unity;
- An understanding and prior work experience in vision related problems and work experience in deep learning.



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:

[Dr Sharib Ali](#), Lecturer (Assistant Professor)

Email: S.S.Ali@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 Computer Science](#).

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 this post may be suitable for sponsorship under the Skilled Worker visa route but first-time applicants might need to qualify 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.

