



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Computer Vision,
Faculty of Engineering and Physical Sciences



Salary: Grade 7 (£38,205 – £45,585 p.a.) Due to funding restrictions, an appointment will not be made higher than £39,347 p.a.

Reference: EPSCP1161

Location: Leeds campus (with scope for hybrid working)

Closing date: Sunday 13 October 2024

Fixed term for up to 6 months

We are open to discussing flexible working arrangements

Research Fellow in Computer Vision, School of Computer Science.

We are seeking a post-doctoral Research Fellow to join our project '*Spectraspace: Spectral-Spatial Attention Models for Molecular Spectroscopy and Digital Histopathology*' funded by the EPSRC.

We are looking for an enthusiastic candidate who will develop deep learning approaches using attention models for both hyperspectral imaging (spectral data) and digital pathology (spatial data) to distinguish diseased from non-diseased tissue. There will be potential to develop research beyond this goal, depending on specific research outcomes or interests. There will also be potential to work on a larger grant proposal on the topic depending on interest. You will have a chance to work with established researchers of the Spectraspace team. More information about the project and the team can be found here: <https://clirpath-ai.org/clirpath-ai-projects/>.

Holding a PhD (or have submitted your thesis before taking up the role) in Computer Science, Engineering, Mathematics or a related discipline; you will have good communication skills and, the ability to work as part of a team.

What does the role entail?

As a Research Fellow, your main duties will include:

- Developing a framework of state-of-the-art attention mechanisms including Transformers for molecular spectroscopy and pathology which will be used to create a benchmark for the data we will use;
- Extending the attention mechanism to more efficiently use both spectral and spatial data;
- Creating synthetic data using state-of-the-art generative learning models to support data augmentation for the dataset;
- Contributing to joint discussions with the wider research group and actively participating in team meetings;
- Planning and managing own research activity in collaboration with others and within the strategy identified for the project team as a whole;
- Generating and pursuing independent and original research ideas in the appropriate subject area;



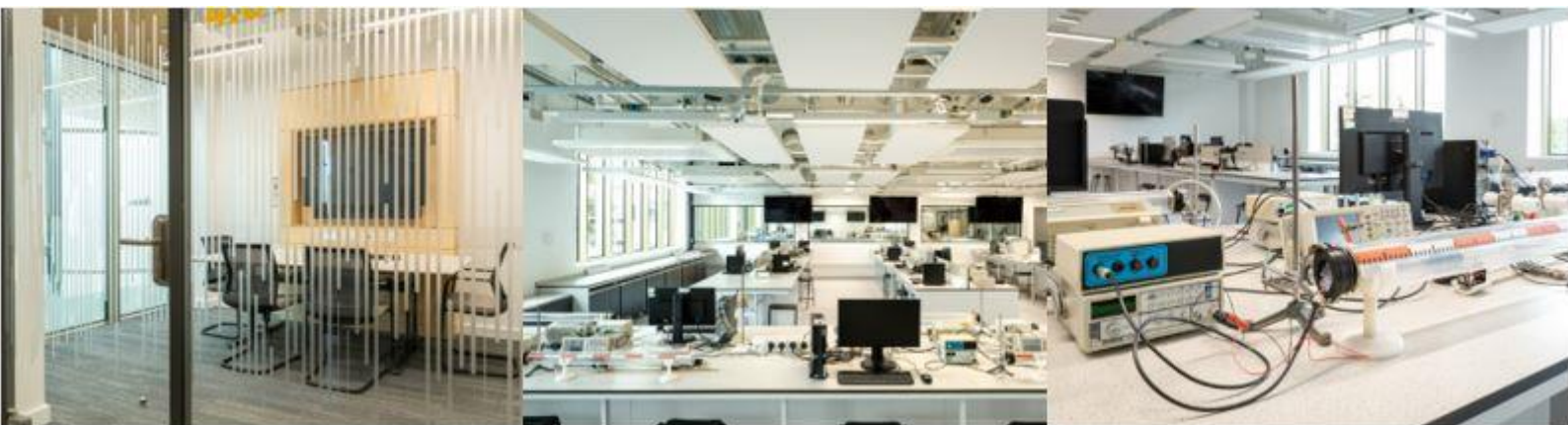
- Developing research objectives and proposals and contributing to setting the direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- Making a significant contribution to the dissemination of research results by publication in leading 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, Mathematics or a related discipline;
- A good knowledge of fundamental topics in computer vision and deep learning, along with strong coding skills in Python;
- An enthusiasm for problem solving;
- 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;
- Experience with advanced deep learning topics, particularly multi-modal deep learning, and attention models.

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 Duygu Sarikaya](#), Lecturer in Computer Science

Email: D.Sarikaya@leeds.ac.uk

Additional information

Please note: If you are not a British or Irish citizen, you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen and resident in the UK before 31 December 2020, this may be your passport or status under the EU Settlement Scheme.

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 [the Government's Skilled Worker visa page](#).

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information, please visit [the Government's page, Apply for the Global Talent visa](#).

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](#).



Our University

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 under the 'Accessibility' heading on our [How to Apply](#) information page or by getting in touch by emailing HR via hr@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 page.

