CANDIDATE BRIEF

Data Scientist, Healthy and Sustainable Places (HASP)
School of Geography, Faculty of Environment

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

Fixed-term until 31 March 2029 to complete specific time limited work
Reference: ENVGE1262

Location: Main Campus (with scope for hybrid working)
We are open to discussing flexible working arrangements

Research Data Scientist
Healthy and Sustainable Places (HASP)
School of Geography, Faculty of Environment

Are you a driven research data scientist looking for your next challenge? Do you want to further your career in one of the UK's leading research-intensive Universities?

We are seeking to appoint three talented and highly motivated individuals to join the Healthy and Sustainable Places (HASP) data service. HASP is funded by the Economic and Social Research Council (ESRC) as part of its Smart Data Research UK programme.

HASP will provide a platform for place-based research utilising data from a diverse range of sources, enabling society's most pressing and persistent challenges in health and sustainability to be assessed together. HASP has a particular focus on two thematic pillars: Healthy and Sustainable **Food and Lifestyles**; and Healthy and Sustainable **Mobility**. Through extensive partnerships with data owners in retail, business, mobility and infrastructure domains, HASP will introduce new 'Smart Data' (e.g. from sensors, transactions, and devices) into established challenge areas, providing unprecedented opportunities for generating novel research questions that cut across disciplines and maximise the benefit and impact of Smart Data research.

As a Research Data Scientist, you will have the opportunity to derive insight and deliver impact from our unique data assets and affiliated projects. The role will entail the analysis of these data assets, and the creation of innovative and impactful data products (e.g., maps, metrics, aggregations), and contribution to the wider objectives of the data service, to assess the health and sustainability of places.

We are looking for three Research Data Scientists who are driven and creative, with skills in one or more of the following domain areas (please specify which domain area(s) you are applying to in your cover letter):

1. **Data visualisation**. You will have expertise in deriving insight from datasets by designing and implementing data visualisations. Ideally, you will have experience in building interactive dashboards and dynamic visualisations that communicate complex ideas to a wide audience.

2. **Data Engineering at Scale**. You will have expertise in manipulating and analysing large datasets. This will include knowledge of SQL, and experience with Hadoop, Apache Spark, or similar platforms would be beneficial. You will have experience in machine learning at scale, including associated tools, such as pytorch, TensorFlow, and/or Hugging Face.

3. **Geospatial data**. You will have expertise in manipulating, analysing and visualising data that contains geospatial information. Ideally, you will understand how geographical boundaries change over time, with experience in producing consistent data outputs. You will have experience in using desktop GIS software (e.g. QGIS) online platforms (e.g. Carto) and geospatial analysis using a programming language (e.g. R, Python).

Main duties and responsibilities

- In collaboration with other HASP staff and external partners, developing suitable research questions for analysis using our data assets
- Developing indicators, visualisations and other derived data products for the HASP platform
- Acting as a first point of contact on the launch of new data products, fielding requests for technical support from end-users including key partners, and troubleshooting / providing technical advice & solutions;
- Contributing to and supporting arrangements for access by approved researchers to HASP data assets
- Analysing large and complex datasets
- Writing high-quality, robust, well documented computer code and software
- Contributing to the production of high-quality research papers for publication in academic journal
- Disseminating findings from projects by preparing and delivering research presentations at conferences and other forums
- Development and delivery of training materials for short (half-day, one-day or two-day) courses in data science and other outreach activities
- Proactively sharing examples of innovative research and team working best practice with other members of the team and the wider research community;
- Building and maintaining relationships 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.

Qualifications and skills
In addition to the domain specific skills outlined above
Essential
- A PhD or near completion (i.e. initial thesis to be submitted before the start date) in Geography, Computer Science, Mathematics, Statistics, or a related discipline with a significant component of data analysis, data science and/or modelling;
- An interest in and understanding of data relating to consumer behaviour that is generated by day-to-day digital footprints, and of the research questions and challenges associated with such data;
- Expertise in a range of data science approaches, for example machine learning, statistical modelling, or spatial modelling;
- Experience with at least one programming language used in data science (such as Python or R);
- An understanding of the importance of good practice in developing reliable and reproducible software tools (such as version control, testing, package management, literate programming tools such as Jupyter Notebooks and Rmarkdown/ R Notebooks);
- An ability to write high-quality research papers;
- Excellent communication skills including evidence of having presented work at a high academic level and an ability to explain complicated technical work to a range of audiences, for example, a variety of academic disciplines, policy makers and industry;
- A proven ability to work closely with a small group of fellow research data scientists and collaborate with a wider, multidisciplinary team.

Desirable
- Experience of development operations and/or Microsoft Azure management;
- Experience of working in a quality-controlled environment working with highly confidential and/or sensitive data (e.g. ISO27001, Department of Health Data Security and Protection Toolkit);
- Experience in delivering education in a practical setting, in order to develop and deliver HASP short courses in data science.

Additional 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.

Our University

At the University of Leeds, we are committed to providing a culture of inclusion, respect and equity of opportunity that attracts, supports, and retains the best students and staff from all backgrounds and from across the world. Whatever role we recruit for we are always striving to increase the diversity of our community, which each individual helps enrich and cultivate. We particularly encourage applications from, but not limited to Black, Asian, those who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability.

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.

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.

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.