



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Software Engineer (Data Science), Leeds Institute for Data Analytics / Research IT



Salary: Grade 7 (£33,797 – £40,322 p.a.)

Reference: CSUIT1324

We will consider job share and flexible working arrangements

Research Software Engineer (Data Science), Leeds Institute for Data Analytics / Research IT

Are you interested in supporting research in Data Science in one of the leading Universities in the world? Would you like to develop a career in the emerging field of Research Data Science?

It is a great time to join the University of Leeds. The Leeds Institute for Data Analytics (LIDA) is a leading research department of the University of Leeds, playing a central role in the University of Leeds strategic plan, aligning with national priorities including the development of data science and Artificial Intelligence as one of the four grand challenges in the Industrial Strategy.

The Institute supports a research portfolio of £50 million across the University, working within a physical hub of 170 seats. In 2018 the University of Leeds became a partner in the UK national institute for Data Science and Artificial Intelligence (Alan Turing Institute), and has won major multidisciplinary awards in the field of data science including the UKRI funded LIDA Centres for Doctoral Training in Artificial Intelligence for Medical Diagnosis and Care and in Data Analytics and Society. We work closely through our partnership with Turing, and support our staff in accessing training and development opportunities including collaborative working, project design and execution.

Working together with the University of Leeds Research IT Professional Service, we are making significant investment in our infrastructure and staff. Moving to a cloud based platform; we want to develop new and improved ways of working and support our researchers in developing new models of working and realising the exciting opportunities our new IT infrastructure can bring.

Working in the Data Analytics Team based within the Leeds Institute for Data Analytics (LIDA), as a Research Software Engineer (Data Science) you will provide a range of technical software development, data management and cloud computing related activities to enhance research outcomes, improve impact and accelerate productivity. You will work with researchers from across the University and beyond.



What does the role entail?

As a Research Software Engineer (Data Science) your main duties will include:

- Working with and providing expert advice, guidance and training to members of the research community who work within the Leeds Institute for Data Analytics on a variety of data analytical areas, for example:
 - Data handling, data manipulation, data linkage;
 - Data management including cleaning, quality monitoring, coding, formatting and re-shaping data, provision of reports and visualisation;
 - Data curation and quality standards;
 - Database specification, software development;
 - Providing specialist advice on and assessing disclosure risk in data, applying specialist mitigation techniques for risk reduction e.g. pseudonymisation;
- Developing and optimising new techniques, ways of working and software in a range of programming languages;
- Managing access to, set up and monitoring of new projects on the new LIDA Research IT Cloud Platform;
- Maintaining and developing your knowledge of subject area fundamentals and develop knowledge of new advances in research computing and research data science. Proactively sharing new advances and models of working with other members of the team and the wider research community;
- Undertaking outreach activities to better understand the needs of and improve engagement across the research community with the LIDA Data Analytics Team;
- Planning and allocating your own time with the support of the Data Analytics Team Manager, to ensure efficient deployment of resources, planning and prioritising work in line with defined aims, objectives and priorities;
- Using your knowledge and experience to contribute to the strategic long-term plans for research data science, research software engineering, research computing and the wider Research IT Professional Service;
- Building and maintaining relationships with other Research Data Scientists and 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 (Data Science) you will have:

- Expertise in a branch of Data Science, gained through substantial experience of working in an academic, public or private sector environment;
- Familiarity with a number of numerical models and computational approaches relevant to the development of models and approaches for the analysis of different types of data;
- Experience with one or more programming languages used in Data Science such as R, Python, Julia;
- Fluency with data management tools such as SQL, Hadoop/Spark etc.;
- The ability to rapidly learn and assimilate new skills and knowledge and turn them into practical tools and techniques;
- An understanding of the importance of Research Software Engineering good practice for developing reliable and reproducible software tools (such as version control, testing, package management, literate programming tools such as Jupyter Notebooks and Rmarkdown/ R Notebooks);
- 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:

- Experience of working in a quality controlled environment working with highly confidential data e.g. ISO27001, Department of Health Data Security and Protection Toolkit;
- Experience of Machine Learning, Deep Learning, Data Visualisation;
- Experience of handling sensitive data for research;



- Experience of developing and or delivering teaching and training for researchers and other Data Science professionals;
- Experience of working with other programming languages such as Java, C or C++;
- Experience of working with 'NoSQL' databases, particularly Graph databases;
- An awareness and interest in the use of tools and services within public clouds to develop software tools for research.

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:

Martin Callaghan, Research IT

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Email: M.Callaghan@leeds.ac.uk

Additional information

Find out more about [IT](#)

Find out more about [LIDA](#)

Working at Leeds

Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our [Working at Leeds](#) information page.

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 page.

