The Alan Turing Institute

RESEARCH DATA SCIENTIST / RESEARCH SOFTWARE ENGINEER

THE ALAN TURING INSTITUTE

There has never been a more significant time to work in data science and AI. There is recognition of the importance of these technologies to our economic and social future: the so-called fourth industrial revolution. The technical challenge of keeping our data secure and private has grown in its urgency and importance. At the same time, voices from academia, industry, and government are coming together to debate how these technologies should be governed and managed.
The Alan Turing Institute, as the UK's national institute for data science and artificial intelligence, plays an important part in driving forward advances in these technologies in order to change the world for the better.

The Institute is named in honour of Alan Turing, whose pioneering work in theoretical and applied mathematics, engineering and computing is considered to have laid the foundations for modern-day data science and artificial intelligence. The Institute's purpose is to make great leaps in data science and AI research to change the world for the better. Its goals are to advance world-class research and apply it to national and global challenges, build skills for the future by contributing to training people across sectors and career stages, and drive an informed public conversation by providing balanced and evidence-based views on data science and AI.

After launching in 2015 with government funding from EPSRC and five founding universities, the Institute has grown an extensive network of university partners from across the UK and launched a number of major partnerships with industry, public and third sector. Today it is home to more than 300 researchers, a rapidly growing team of in-house research software engineers and data scientists and a business team.

BACKGROUND

The Institute's Research Engineering Group work towards maximising impact in data science research projects by realising cutting edge research as professionally usable software tools, so they can be used to address real-world challenges.

The Group's staff are research software engineers, research data scientists and research computing engineers. We note the considerable overlap between these emerging roles and embrace the breadth of interdisciplinary skills and diversity of approaches entailed in these fields. Staff can choose any of these job titles and change their choice as their career progresses.

The Group is central to the institute's research landscape and will continue to play an important role in enabling our research ambitions. To support this, we are recruiting Research Data Scientists and Research Software Engineers to join our team at an exciting time.

ROLE PURPOSE

In contrast to traditional research careers, we are committed expert collaborators, who join research teams to further the Institute's challenges. We collaborate with scholars across the Institute's research community to enhance the applicability of research for particular problems. We work with clients in industry, government and the third sector to turn their data challenges into research questions. We value expertise across many domains, with current members of the Group having backgrounds in psychology, mathematics, digital humanities, research computing and other areas. We rely on this diversity to design tools, practices and systems to harness the power of data science around the world.

We create software that implements research and use it to analyse client data in a readable, reliable and reproducible fashion. We present conclusions of research and analysis to the research community and clients through presentations, research papers, blog posts, interactive data visualisations and open-source software packages. We develop and work with state-of-the-art, high performance computing and cloud infrastructure to realise collaborators' data science and artificial intelligence research at scale.

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HOW YOU WILL MAKE AN IMPACT

- Apply state-of-the-art and novel data science and artificial intelligence techniques emerging from the Institute and elsewhere to problems faced by the Turing's clients.
- Collaborate with research colleagues to develop and maintain high-quality, well-tested software embodying research outputs.
- Present, disseminate and explain our work via presentations, reports and well-documented software packages.
- Contribute to the life of the Institute and support its community:
    - Deliver teaching and training to colleagues and students, including within the team in our regular skills sessions.
    - Support research colleagues to make the most of the Institute's secure high performance computing environments for advanced research.

Please note that job descriptions cannot be exhaustive, and the postholder may be required to undertake other duties, which are broadly in line with the above key responsibilities. This job description is written at a specific time and is subject to changes as the demands of the Institute and the role develop.

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PERSON SPECIFICATION		
Skills and Requirements Post holders will be expected to demonstrate the following:	**Essential (E)** **Desirable (D)**	**Tested at application (a)** **Tested at interview (i)**
Knowledge and Experience		
Relevant industry or academic experience (for instance pursuing a PhD) in a field with significant use of both computer programming and advanced statistical or numerical methods.	E	A/I
Fluency in one or more modern programming languages used in research in data science and artificial intelligence. (We particularly work in R, Python, and modern C++, but demonstrable use of other programming languages for research, together with a facility for learning new languages, is most welcome.)	E	A/I
An understanding of the importance of good practices for producing reliable software and reproducible analyses, such as version control, issue tracking, automated testing, package management and literate analysis tools such as Jupyter and Rmarkdown.	E	A/I
Excellent written and verbal communication skills, including experience in the authoring of technical reports or research papers, and giving presentations or leading classes.	E	A/I
Experience managing, structuring, analysing and visualising research data and the results of computational experiments.	E	A/I
Ability to lead one's own work independently, including planning and execution, and to collaborate productively as part of a team.	E	A/I
Demonstrated enthusiasm and ability to rapidly assimilate new computational and mathematical ideas and techniques on the job and apply them successfully.	E	A/I
Ability to coach/mentor others or act as "buddy" providing advice, guidance and feedback to help team members work more effectively.	D	A/I
Other requirements		
Commitment to EDI principles and to the Organisation values	E	I

ADDITIONAL DESIRABLE EXPERIENCE

The Research Engineering Group is a learning team and actively encourages its members to develop their skills so that they can apply new techniques and approaches across their projects. A commitment to developing new expertise is therefore very desirable to us. In addition to the technical skills you already have, we will look for evidence of a commitment to learn by looking at new skills you have developed in previous roles, and your interest and plans for acquiring future skillsets.

We note that not all skills useful to us will fall into the categories of data science and software engineering. Experience in teaching and training, building open-source communities, scientific computing, knowledge of public cloud or high-performance computing platforms, or other areas, are also very welcome. If you feel that your skillset and experience would support the Group's activities, we strongly encourage you to apply. Please refer to our FAQ page for further information. If your query is not addressed there, please contact us at recruitment@turing.ac.uk.

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APPLICATION PROCEDURE

If you are interested in this opportunity, please click the apply button below. You will need to register on the applicant portal and complete the application form including your CV (maximum 3 pages) and a cover letter (maximum 2 pages) as PDF documents, telling us:

- Your past experience working with code and/or data
- Why you would like to become part of the Research Engineering Group
- How your skillset would complement the activities of the team.

If you wish to share links to blog posts, public code repositories or research papers containing work that you have made significant contribution to, please add a link to those in your cover letter.

If you have questions about the role or would like to apply using a different format, please contact us at recruitment@turing.ac.uk.

TERMS AND CONDITIONS

This full-time post is offered on a permanent basis. The annual salary range is £46,000 - £57,000 (depending on experience) plus an excellent benefits package including private medical insurance, 10% employer pension contribution, flexible hybrid working and family friendly policies - **click here for details.**

We are committed to supporting career development and progression within the group. Opportunities to progress into Senior-level positions are reviewed annually, based on growth and progression in the role.

EQUALITY, DIVERSITY AND INCLUSION

The Alan Turing Institute is committed to creating an environment where diversity is valued and everyone is treated fairly. We value diversity of background, experience, and perspective, and are proud to be an inclusive employer. We warmly encourage applications from all backgrounds, particularly from groups currently under-represented in our sector. If you feel passionate about this role but don't meet every single requirement, please apply — we recognise that great candidates may bring strengths beyond the criteria listed.

We are committed to making sure our recruitment process is accessible and inclusive. This includes making reasonable adjustments for candidates who have a disability or long-term condition. Please contact us at recruitment@turing.ac.uk to find out how we can assist you.

Please note all offers of employment are subject to obtaining and retaining the right to work in the UK and satisfactory pre-employment security screening which includes a DBS Check.

Full details on the pre-employment screening process can be requested from HR@turing.ac.uk***.***

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OUR VALUES

The Alan Turing Institute is committed to equality diversity and inclusion and to eliminating discrimination. All employees are expected to embrace, follow and promote our EDI Principles and Our Values.