

The Alan Turing Institute

Data Scientist, Public Sector AI

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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 goals are to undertake world-class research, apply its research to real-world problems, driving economic impact and societal good, lead the training of a new generation of scientists, and shape the public conversation around data and algorithms.

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 500 researchers, a rapidly growing team of in house research software engineers and data scientists and a business team.

BACKGROUND

The Public Policy research programme works alongside policy makers to explore how data-driven public service provision and policy innovation might help to solve long running societal problems. Our work is interdisciplinary, with machine learning engineers, NLP experts, data scientists and social scientists collaborating across different projects.

The AI for Public Services team is part of the Public Policy programme. Our work focuses on working directly with government on the responsible implementation of AI and data science in the public sector in order to improve public services. We conduct foundational research trying to understand potential and actual uptake of AI in the public sector (and its consequences). We also conduct applied research projects looking at how the latest technology can be implemented in government: for example, how the next generation of large language models can be used to improve citizen communication.

ROLE PURPOSE

To support our ongoing work, we are seeking to recruit a Data Scientist focussed on public sector AI. The successful candidate will have two main responsibilities:

- Helping push forward some of our measurement work on the possible space for AI in government and thinking about how the technology can improve public sector productivity.
- Helping advance our work on large language models for government, building out some of our development and testing pipelines.

The successful candidate should have a strong technical background at the master's level, and enthusiasm for working with the technology for public and social good. However, there is no requirement for extensive experience either with productivity measurement or LLMs – the successful candidate could learn these on the job.

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DUTIES AND AREAS OF RESPONSIBILITY

The successful candidate will:

- Help support our work on AI and public sector productivity measurement, in conjunction with other colleagues on the team. This is a diverse workstream but could involve:
 - Automating decomposition of job descriptions into individual tasks using NLP.
 - Abstract task definitions.
 - Some human labelling.
- Help support our work on LLMs for government, by (for example):
 - Writing code pipelines that generate automatic summaries of text.
 - Working on dashboards or interactive visualisations of such summaries.
 - Working on evaluation protocols and writing code to test and evaluate LLM results.
- Write reports and academic papers on our results, as appropriate.
- Interact with policymakers and civil servants providing advice and support.
- Participate in fundraising activities.

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)
Education/Qualification		
Masters-level degree or higher in computer science, engineering, data science, statistics or a related-discipline.	E	A, I
Knowledge and Experience		
Experience with data science in Python.	E	A, I
Demonstrated interest in applications of AI in government and the public sector.	E	A, I
Understanding of good software practices, including version control (e.g., Git) and package management.	D	A, I
Experience with Microsoft Azure.	D	A
Experience and understanding of other programming languages, such as SQL, shell scripts and R.	D	A
Experience in relevant Data Science/ML methods, such Natural Language Processing, or transformer-based language models.	D	A
Experience in an academic research environment.	D	A
Experience with modelling jobs and tasks and measuring productivity.	D	A
Communication		
Excellent written and verbal communication skills, including the ability to present complex or technical information.	E	A, I
Initiative and Problem Solving		
Ability to use own judgement to analyse and solve problems.	E	A, I
Independently makes decisions which are low risk and that mainly affect themselves or a small number of people and are guided by regulation and practice.	E	A, I
Analysis and Research		
Ability to organise working time, take the initiative, and carry out research independently, under the guidance of the PI.	E	I
Team Development		
Undertakes coaching/mentoring activities providing advice, guidance, and feedback to help team members work more effectively.	E	A, I

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Ability to collaborate successfully with colleagues in a multidisciplinary environment and to manage delivery of projects.	E	I
Other Requirements		
Commitment to EDI principles and to the Organisation values.	E	I

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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](#).

Our values

- Trust**
We create an environment where we have trust and can be trusted
- Inclusivity**
We expect our Turing community to contribute to a culture that is inclusive and free of barriers
- Respect**
We all have different roles, priorities and challenges but our shared purpose is the same
- Leadership**
Leadership is everyone's business; Turing leaders set the right tone and lead by example
- Transparency**
Everyone should understand the how and the why of our decisions and actions
- Integrity**
We are all ambassadors for the Turing's mission of changing the world for the better

APPLICATION PROCEDURE

You will need to register on the applicant portal and complete the application form including your CV, covering letter that outlines how you meet the job specifications. If you have questions about the role please email recruitment@turing.ac.uk.

CLOSING DATE FOR APPLICATIONS: Wednesday, 22 November 2023 at 23:59 (London, UK)

We reserve the right to close this vacancy early or to interview suitable candidates before the closing date if enough applications are received.

TERMS AND CONDITIONS

This full-time post is offered on a fixed term basis for 12 months. The annual salary range is £42,893 - £48,300, plus excellent benefits, including flexible working and family friendly policies, <https://www.turing.ac.uk/work-turing/why-work-turing/employee-benefits>.

EQUALITY, DIVERSITY AND INCLUSION

The Alan Turing Institute is committed to creating an environment where diversity is valued, and everyone is treated fairly. In accordance with the Equality Act, we welcome applications from anyone who meets the specific criteria of the post regardless of age, disability, ethnicity, gender reassignment, marital or civil partnership status, pregnancy and maternity, religion or belief, sex and sexual orientation.

We are committed to building a diverse community and would like our leadership team to reflect this. We therefore welcome applications from the broadest spectrum of backgrounds.

Reasonable adjustments to the interview process will be made for any candidates with a disability.

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.