

The Alan Turing Institute

Online Harms Observatory

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 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 PROGRAMME

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 Online Safety Team is a new part of The Turing's Public Policy Programme. It provides objective, evidence-driven insight into the technical, social, empirical and ethical aspects of online safety, supporting the work of public servants (particularly policymakers and regulators), informing civic discourse and extending academic knowledge. High-priority topics include online hate, personal attacks, extremism, misinformation and disinformation. We have three main workstreams:

1. Data-centric Artificial Intelligence for online safety
2. Building an Online Harms Observatory
3. Policymaking for online safety

ROLE PURPOSE

The Data Science Engineer will collaborate with technical & research focused colleagues in the Online Safety Team to further the development of the Online Harms Observatory, a platform intended to bridge the gap between research on AI & online harms, and the practical application of AI for monitoring online harms.

The Data Science Engineer will primarily work on optimising the existing cloud infrastructure behind the Online Harms Observatory, setting up new data collection & processing pipelines, and extending the functionality of the Observatory dashboard, alongside collaborating with researchers to deliver the data needed to train cutting-edge state-of-the-art machine learning models, and to deploy these models in the Online Harms Observatory.

The successful candidate will report to Dr. Jonathan Bright, Head of Online Safety. They will have opportunities to engage with stakeholders in the Department for Digital, Culture, Media and Sport, Ofcom and others.

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DUTIES AND AREAS OF RESPONSIBILITY

The successful candidate will:

- Collect, store and wrangle data from social media platforms, eg. through APIs.
- Develop and manage databases & data pipelines in Azure, ensuring systems are well designed and efficient.
- Work closely with colleagues to write, document & maintain production-quality code for the Online Harms Observatory.
- Conduct ad-hoc quantitative analysis for colleagues & stakeholders, and act as an authority on the quantities & types of data collected/processed.
- Communicate data collection concepts & methodology clearly to colleagues & stakeholders.
- Collaborate with researchers to curate datasets on online harms and deploy models for inference.
- Liaise with colleagues & stakeholders to drive use of the Observatory dashboard, giving live demonstrations and integrating end user feedback.
- Contribute to the life of the Institute and support its community, e.g. participating in equality & diversity and skill-sharing programmes.

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	Essential (E) Desirable (D)	Tested at application (a) Tested at interview (i)
Post holders will be expected to demonstrate the following:		
Education/Qualification		
Masters-level degree or higher in computer science, engineering, data science, statistics or a related-discipline.	E	A
Knowledge and Experience		
Experience writing high-quality Python code, using libraries such as Pandas and Numpy.	E	A,I
Experience working in Linux CLI	E	A,I
Understanding of good software practices, including version control (eg. Git) and package management	E	A,I
Experience with cloud computing & storage platforms	E	A
Experience in quantitative analysis and manipulation of large volumes of data	D	A
Experience collecting (through APIs) and wrangling data to create structured datasets	D	A
Experience working with social media data (eg. Twitter)	D	A,I
Experience and understanding of other programming languages, such as SQL, shell scripts and R.	D	A
Experience developing data pipelines in Azure	D	A
Experience in relevant Data Science/ML methods, such Natural Language Processing, or transformer-based language models.	D	A
Interest in online safety, policymaking or social scientific research.	D	A,I
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
Teamwork and Motivation		
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
Contributes to the induction of new staff, may act as a “buddy” or explain routine procedures.	D	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

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 and covering letter. If you have questions about the role or would like to apply using a different format, please contact us on 020 3970 2148 or 0203 862 3340, or email recruitment@turing.ac.uk.

TERMS AND CONDITIONS

This full-time post is offered on a fixed term basis for 18 months. The annual salary is £37,000 - £45,000 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.

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.