The Alan Turing Institute

POSTDOCTORAL RESEARCH ASSOCIATE – SHOCKS AND RESILIENCE (Engagement, implementation, and dissemination to policy-makers)

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

SHOCKS AND RESILIENCE RESEARCH PROJECT
Measuring policy impact in the Covid-19 crisis and building resilience against future shocks.

The Covid-19 crisis has highlighted how vulnerable societies and governments are to shocks. This vulnerability is exacerbated by the propensity to design policy for narrow siloes relating to singular policy areas and government departments, without adequate consideration of the interdependencies between them and the interconnected nature of local and global societies. The pandemic has brought into focus that resilience in one policy area (e.g. health) can come at the cost of resilience in another (e.g. the economy). The overall aim of this large-scale, 2-year research project is to develop a better understanding of resilience in interconnected health, social, and economic systems and to use this understanding to identify robust policy measures.

The project brings together multidisciplinary expertise from across the Turing community, including in health, public policy, economics, and urban analytics. We are hiring nine postdoctoral research associates for this project, who will work collaboratively to develop a rigorous understanding of societal responses to shocks and a clear strategy for how to engender policy resilience. To achieve our aims, we will require reliable, consistent, real-time, fine-grained data sources, as well as integrative, highly-granular models that bring together policy areas and cross disciplinary boundaries.

The Shocks and Resilience project consists of the following five work packages, and we are hiring nine postdoctoral research associates (PDRAs) in total:

1. Modelling COVID-19 (2 PDRAs)
2. Learning causality and dynamics in interconnected systems (2 PDRAs)
3. Spatial modelling (2 PDRAs)
4. Generalised models for resilient policy-making (2 PDRAs)
5. Engagement, implementation, and dissemination to policy-makers (1 PDRA)

We recommend reading the project's website and all the job descriptions related to this project. Taking the time to do so will ensure that you are applying for the post that most closely matches your interests and experience.

This project is supported entirely by public funds, through Wave 1 of the UK Research and Innovation Strategic Priorities Fund, under EPSRC Grant EP/T001569/1.

Work package 5: Engagement, implementation, and dissemination to policy-makers

This work package focuses on ensuring that policy-makers play a key role in informing our research. We are consulting with representatives from various government departments and agencies to understand what their main questions are, especially related to Covid-19. We are using the input from these conversations to design case studies and to steer our data and modelling work.

ROLE PURPOSE

This role is suited to someone educated to PhD level with a demonstrable interest in using data science and AI in policy-making. The post-holder will report to the Deputy Director of the Turing's Public Policy Programme and will work closely with policy-makers and with academics to ensure that the research generated under the umbrella of the shocks and resilience project will help governments improve their policy-making processes.

DUTIES AND AREAS OF RESPONSIBILITY

The core responsibilities of the Postdoctoral Research Associate are as follows:

- Serve as a key link between the Turing's external partners in the public policy space and the academic community working on the Shocks and Resilience project:
    - Externally, the Postdoctoral Research Associate will build relationships with policy makers as part of the research project's external engagement strategy. In particular, the Postdoctoral Research Associate will work with policy-makers to understand their most pressing needs and to identify useful case studies, data sets, methodologies, and tools. The post holder will consult regularly with policy-makers and act as liaison between the government and the Turing research community.
    - Internally, the Postdoctoral Research Associate will ensure that the needs of policy-makers shape the intellectual direction of the Shocks and Resilience research projects. The post holder will also develop and manage work plans to ensure the timely delivery of data and tools to policy makers.
- Carry out original and high-quality interdisciplinary research in the area of data science for policy. We expect the post holder to produce regular policy reports based on the outputs of the Shocks and Resilience research project, as well as to publish academic articles in their area of focus.
- Participate in knowledge exchange activities as appropriate. This may include:
    - Working with the Turing's communications team to ensure that the research undertaken under the Shocks and Resilience project is effectively promoted in mainstream media.
    - Working in close coordination with other members of the Turing's Health and Public Policy Programmes to maximise the research's influence on ongoing policy debates.
    - Representing the Turing at external conferences and events.

If appointed at a Senior Postdoctoral Research Associate level, the post-holder will have additional responsibilities, such as:

- To oversee the work of other Postdoctoral Research Associates who are conducting research in related areas.
- To define the research direction in collaboration with the PIs of the Shocks and Resilience project.
- To take the lead on writing up findings as they emerge, producing reports, and developing publications in peer reviewed journals, in collaboration with the research team.

PERSON SPECIFICATION

Skills and Requirements The post holder will be expected to demonstrate the following:	**Essential (E)** **Desirable (D)**	**Tested at application (A)** **Tested at interview (I)**
Education		
Postdoctoral Research Associate level: holds a PhD or has equivalent level of professional experience in a discipline that provides suitable theoretical and empirical foundations for the use of data science and AI in the context of policy-making and public service provision. This degree may either be in a discipline within the social sciences or in an academic field directly related to technical aspects of digital innovation such as HCI, mathematics, or statistics	**E**	**A**
Knowledge and Experience		
A research background and expertise related to data science, AI, and digital technologies more broadly, and in their applications in the public sector. We will consider candidates for an appointment at a Senior Postdoctoral Research Associate level if they have significant postdoctoral research experience (3+ years).	**E**	**A I**
A solid understanding of the technical aspects of digital innovation that have relevance in a policy-making context, such as machine learning, agent computing, network science, data supply chains, etc.	**E**	**A I**
Knowledge/understanding of the UK government and policy-making landscape	**E**	**I**
Experience in a policy environment, such as an international organisation, government agency, think tank, or learned society; or experience in a tech company or consultancy	**D**	**A I**
Communication		
Ability to communicate complex, specialist or conceptual information clearly and persuasively to diverse audiences	**E**	**A I**
Teamwork and Motivation		
Ability to work with others, especially postdocs, research assistants, and PhD students.	**E**	**A I**
Liaison and Networking		
A proven ability to collaborate successfully in a multidisciplinary environment and to manage delivery of projects	**E**	**A I**
Experience in interacting with policy-makers and translating data-driven findings into meaningful insights and policy-focused reports	**D**	**A I**
Planning and Organising		
Experience in setting up research collaborations involving multiple stakeholders	**D**	**A I**
Ability to organise and prioritise own work with minimal supervision	**E**	**A I**
Analysis and Research		
Ability to carry out original research and to produce published research papers	**E**	**A I**
Other Requirements		
Commitment to Equality Diversity and Inclusion principles and to the Organisation values	**E**	**I**

TERMS AND CONDITIONS

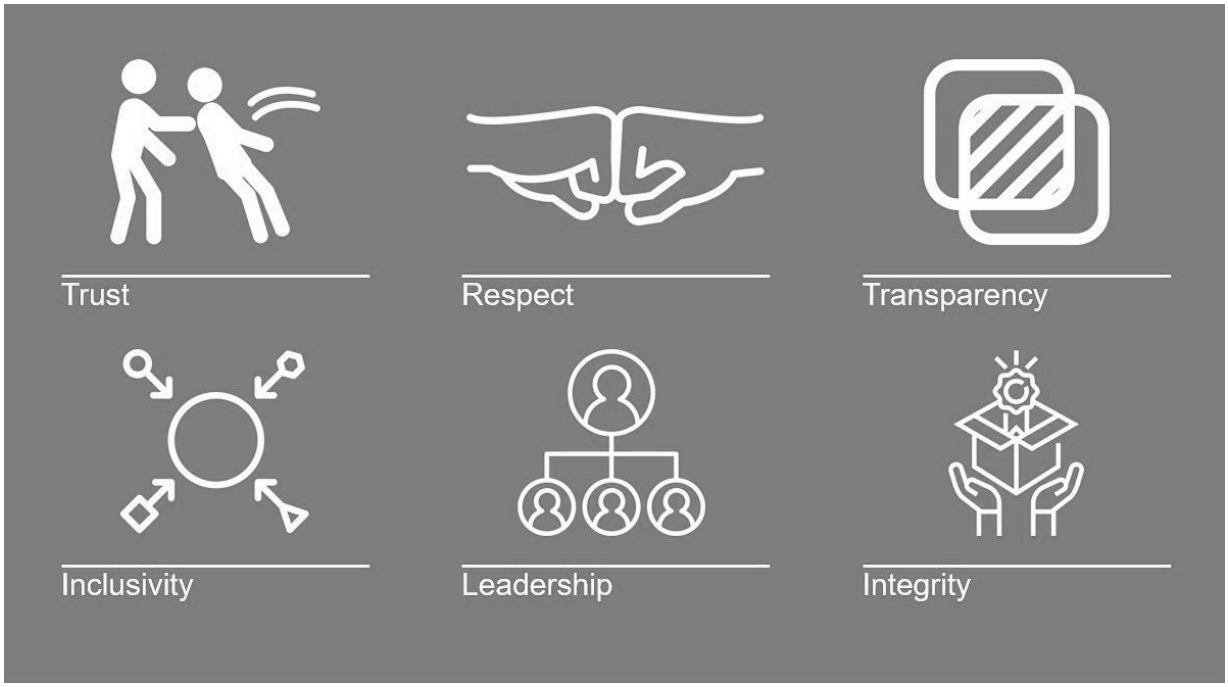
This full-time post is offered on a fixed-term basis for a period of two years. The annual salary is £35,000 to £41,000 (dependent on skills and experience) plus excellent benefits, including flexible working and family friendly policies, https://www.turing.ac.uk/work-turing/why-work-turing/employee-benefits.

Candidates who are appointed at a Senior Postdoctoral Research Associate level will have a salary within the range of £42,000 to £49,000 per annum.

Candidates who have not yet been officially awarded their PhD will be appointed as Research Assistant within a salary range of £32,000 to £34,000 per annum.

This job description is written at a specific time and is subject to change as the demands of the Institute and the role develop. The role requires flexibility and adaptability, and the post holder needs to be aware that they may be asked to perform tasks and be given responsibilities not detailed in this job description.

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 Rules of the Game:



Respect – We treat everyone with respect, dignity and kindness and acknowledge the experiences, skills and contributions of others.

Trust - We communicate openly and honestly to support an environment where we have trust in each other.

Transparency – We seek to ensure that everyone understands the how and the why of our decisions and actions. We take on board to feedback when those decisions are challenged.

Inclusivity – We are committed to continuously learning how to be more inclusive by listening to those facing barriers.

Leadership – We recognise creating an inclusive, diverse and equitable institute requires leadership from all. We stand up and speak out when change is needed.

Integrity – We recognise that how we work is as important as our outputs and seek to exemplify best practice in all our decisions.

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, covering letter that outlines how you meet the job specifications; a list of publications as well as a sample piece of writing (a journal article, conference proceeding, book chapter, or equivalent); and contact details for two referees. If you have questions about the role or would like to apply using a different format, please contact us on 020 3862 3575 or email recruitment@turing.ac.uk.

CLOSING DATE FOR APPLICATIONS: 6 December 2020

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 can also be made for any candidates with a disability.

Please note all offers of employment are subject to continuous eligibility 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***.***