The Alan Turing Institute

Programme Director, Defence and Security

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 thesetechnologies to our economic and social future: the so-called fourth industrial revolution. The technical challenge of keepingour 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 ("Turing" and "Institute"), as the UK's national institute for data science and artificial intelligence, plays an important part indriving 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, engineeringand 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 inhouse research softwareengineers and data scientists and a business team.

BACKGROUND

The Institute has cross-disciplinarity at its core; we bring researchers in mathematics and theoretical computer science, statistics and machine learning, algorithms for data analytics and distributed computing, computational social science anddata ethics, software engineers and industry partners, to work together in an open and collaborative environment with a shared goal to generate world-class research in data science and artificial intelligence.

The Institute is motivated by driving impact, both through theoretical development and application to real-world problems.We have identified a growing number of priority domains to focus our translational research which include: data-centric engineering; defence and security; urban analytics; computing technology; financial services; and health, with artificial intelligence informing work across the Institute. We have attracted strategic partnerships with a broad range of data science users including the Lloyd's Register Foundation, the Bill and Melinda Gates Foundation, Accenture, the UK Government Defence and Security and HSBC. We have also announced project collaborations with businesses, government departments and charities.

We invite you to join us as we grow our capability, supporting our goal to develop the next generation of data science andartificial intelligence, shape the public conversation, and push the boundaries of this new science for the public good.

THE PARTNERSHIP

The Alan Turing Institute with GCHQ, MoD and Dstl have formed a long-term strategic partnership to help position the Institute as world leader in data science and AI research and innovation. The Institute's data science and AI research andtraining are key enablers to the UK Government's capabilities underpinning defence and security. GCHQ, MoD and Dstl include expert communities in data science and AI. By using an open-door approach to the Institute and through active collaboration with the Turing at the staff level, a free flow of skills and knowledge has been created. Researchers from theInstitute, the UK Government Communications Headquarters (GCHQ) – including the National Cyber Security Centre (NCSC), Defence Science and Technology Laboratory (Dstl) and Strategic Command within the Ministry of Defence (Mod)will work together on a research programme alongside the wider academic community.

Current research directions include large scale and adversarial machine learning computational statistics, topological andmathematical approaches to data analysis, AI for cyber defence, modelling of global conflict, climate security and privacy enhancing technologies (PETs).

ROLE PURPOSE

The role of the Programme Director is to:

1) provide scientific leadership to a challenging and ambitious multi-million-pound, multi-partner research programme; and

2) through close engagement with GCHQ, MoD, Dstl and other partners help ensure that the programme delivers the maximum positive societal impact possible.

DUTIES AND AREAS OF RESPONSIBILITY
- Provide strategic scientific leadership to the research programme, working closely with GCHQ, MoD and Dstl technical leaders.
- Identify and convene Institute and UK Government colleagues to maximise opportunities for translation and exploitation of the algorithms, software, methods and tools developed through the programme.
- Convene the UK scientific community to help solve national challenges for public good.
- Be an ambassador for the partnership helping to disseminate research outcomes at industry, academic and practitioner conferences and meetings.
- Participate actively with the current and prospective programme funders to help further develop this strategic partnership.
- Identify opportunities for the Institute's and the UK's wider research community to work together to make a global impact and engage with the wider academic and industrial research sectors.
- Act as a key scientific public face of the Institute, promoting the programme (and the Institute's wider research agenda) nationally and internationally and ensuring that the Turing is recognised as the UK's national centre for data science and AI.

OTHER DUTIES
- Teaching may be required as part of collaboration work

Please note that job descriptions cannot be exhaustive, and the post-holder 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		
Record of scientific excellence in an academic, government and/or industrial setting	E	a
Knowledge and Experience		
Proven experience of providing scientific leadership in a senior capacity, in a research environment, be that an academic or commercial arena.	E	a
A good working knowledge of the defence and/or national security landscape.	E	a/i
Credibility with researchers of all career stages	E	a/i
Self-motivated and impact driven.	E	i
Experience of identifying, convening and influencing cross disciplinary research teams.	E	a/i
Experienced and credible spokesperson for media and other stakeholders on scientific issues.	E	i
Demonstrable ability to build and develop effective working relationships with partner organisations (academia, commercial, public and third sectors), and working with a diverse set of stakeholders.	E	a/i
Evidence of a personal network that crosses research disciplines or domain applications.	D	a
An academic background with a track record of securing research funding.	D	a
Knowledge of the UK higher education sector and/or a strong understanding of current academic and commercial research in data science and AI.	D	a
An entrepreneurial spirit and a flair for spotting, creating and seizing opportunities.	D	a/i
Communication		
Communicates more complex, specialist or conceptual information clearly and persuasively, presenting compelling arguments to influence and/or negotiate satisfactory outcomes.	E	a&i

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Service Delivery		
Actively promotes and defines performance standards for the Defence and Security Programme in support of organisational objectives.	E	i

Undertakes regular monitoring and review to ensure that standards are being met.	E	i

Decision Making		
Makes strategic decisions as part of an organisation's senior management team or high-level programme committees, which have a significant impact and long-term implications for the organisation as a whole. Ensures that consideration and process are robust and that decisions can be challenged appropriately. Support the Institute with high-risk strategic decisions with long term implications for the whole organisation.	E	**i**

Analysis and Research		
Develops new hypotheses and concepts for testing to expand or extend existing body of knowledge. Challenges the status quo and provides mechanisms and approaches to explore new possibilities or explanations.	E	a/i

Team Development		
Evaluates performance, and deals with any performance issues, identifying appropriate developmental activity, where appropriate, to ensure individuals meet the needs and expectations of their role.	D	a/i

Other Requirements		
Commitment to EDI principles and to the Organisation values	E	i
Current DV clearance or Willingness to attain DV clearance if not already in place	D E	a/i a/i

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

If you are applying for more than one role at the Turing, please note that only one Cover Letter can be visible on your profile at one time. If you wish to apply for multiple roles and do not want to overwrite your existing Cover Letter, please apply for the role using the button below and forward your additional cover letter directly to recruitment@turing.ac.uk quoting the job title.

External secondments are welcome.

If you are currently employed by a University and require secondment to The Alan Turing Institute for the duration of this role as opposed to direct employment, please provide a statement of support from the applicable Head of Department to allow secondment (see Terms and Conditions below) via emailto jatkins@turing.ac.uk. Statement can be submitted up to a week after closing date. This is an administrative requirement only and will not be part of assessment criteria.

If you are seconded from your employer, a secondment agreement will cover salary and on-costs at the advertised rate only, plus VAT if applicable. Payments will be made on a quarterly basis to your employing University"

TERMS AND CONDITIONS

This full-time post is offered on a permanent basis. On offer is a competitive salary 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 teal 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***.***