The Alan Turing Institute

SENIOR RESEARCH ASSOCIATE, AI FOR INTELLIGENCE ANALYSIS

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 organisations. 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 Alan Turing Institute's Defence & National Security Programme focuses on protecting our country, its people and the places they inhabit, by delivering strategic advantage in AI for the UK and its allies. The Turing is uniquely placed to lead this endeavour, working closely with government partners to strengthen UK defence and security; through world-class research groups advancing the state-of-the-art in AI, dedicated engineering teams translating research into leading-edge deployment-ready capabilities, and policy and governance experts who ensure AI-based capabilities are developed and deployed responsibly. Our independent research, driven by societal impact and public good, is invaluable for our partners, directly tackling the most difficult and impactful real-world challenges they face. In this interdisciplinary, independent and trusted capacity, the Turing also acts as an authoritative convener for diverse expertise in key areas across academia, industry and government.

The AiTASHA project

The Turing has recently been awarded a £1m EPSRC research grant to develop AI methods that can support and enhance intelligence analysis for national security and defence. For this project, the Turing will lead an interdisciplinary consortium that also includes Warwick, Southampton, Heriot-Watt and Cardiff Universities, working closely with UK government defence and national security partners. The project, entitled "AI Intelligence Triage & Acquisition Support for Human-centred Analysis" (AiTASHA), aims to improve the speed and confidence of intelligence analysts' assessments by building new AI tools that can work alongside human analysts. Intelligence analysts are routinely required to make high-consequence, defensible assessments from vast, complex and uncertain datasets, to identify indicators and warnings of hostile or malicious activities. Analysts must make these assessments rapidly in a highly pressured and resource-constrained environment, where they face difficult choices of what data to analyse first, and whether to gather additional intelligence, potentially at the cost of delay or increased risk.

Addressing this challenge is becoming increasingly urgent as both the scale and complexity of intelligence datasets, as well as the threat posed to UK safety, are growing, and existing AI support tools primarily focus on the identification and visualisation of patterns within datasets, without due consideration of human understanding or context, defensibility, and representation of uncertainty. The goal of this ambitious project is to make fundamental advances that will together underpin and enable a future explainable, defensible AI system that can complement, rather than replace, the work of intelligence analysts; recommending which existing data should be prioritised for human review and which potential new data should be prioritised for acquisition. To address this challenge, we will advance the state-of-the-art across multiple disciplines; interpretable multimodal deep learning models, causal statistical models, human-machine teaming and AI ethics.

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ROLE PURPOSE

We are seeking a highly skilled Senior Research Associate to conduct internationally leading research in machine learning, with applications to intelligence analysis. This role will involve investigating and developing methods that will allow deep learning models to encode or represent the same context or mental model as the human analyst, including leveraging and enhancing cutting-edge embedding models, as well as building on existing methods in ML explainability, interpretability, and uncertainty quantification. The research will focus predominantly on vision, language and multimodal models, and on integration of these models with graph-based statistical methods that have been previously developed by members of the project team to support national security use.

This role will be part of the Defence and National Security (D&NS) Programme and will report directly to the PI for the AiTASHA project. Within the Turing, this role will sit primarily within the Defence Artificial Intelligence Research (DARe) centre, which encompasses diverse AI research spanning future sensing, space systems, human-machine teaming, synthetic environments, and edge AI, but there will also be opportunities to engage with researchers from across the D&NS Programme, including from policy and engineering teams.

The successful candidate will also join a vibrant and interdisciplinary team of researchers in the AiTASHA consortium and will have frequent opportunities to engage with internal stakeholders and external government partners throughout the delivery of the project. During the project it is expected that they will work as part of a small tight-knit cohort of Early Career Researchers spanning the AiTASHA consortium Universities.

HOW YOU WILL MAKE AN IMPACT

- Play a leading role in undertaking high-quality research, actively contributing to, and steering the broader research aims of the Defence & National Security Grand Challenge.
- Provide technical leadership for research projects, ensuring successful outcomes, including that research outcomes meet our government partners' requirements and can be deployed in the real world.
- Contribute to, and lead where required, interdisciplinary research teams spanning multiple partner organisations.
- Contribute to software development including planning, execution and package release and management.
- Be a point of contact, supporting the PI in engaging with stakeholders regarding projects and deputising for the PI in meetings where necessary.
- Take the lead on writing up findings as they emerge, producing and developing reports and publications in peer- reviewed journals, in collaboration with the research team.
- Present, disseminate and explain our work at meetings/events and contribute to both the internal and external visibility of the Institute.
- Take responsibility for driving collaboration with academic experts and broader research partners from across the Turing, and the wider Turing / project community.
- Supervise the work of early-career researchers in the team and provide guidance as required with line management of direct reports if required.
- Contribute to the life of the Institute and support a diverse and inclusive community through embracing the Turing values.
- Adhere to and promote principles of reproducible and ethical data science and ensure secure handling of data and health and safety in all aspects of work.
- Travel may be necessary to meet the requirements of the role

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.

Eligibility for Security Check (SC) clearance is a requirement for this role. Eligibility criteria and further information on the process can be found on the UK Government security vetting website. Successful candidates will be subject to a Dstl research workers form check at the offer stage.

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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)**
Significant practical or academic experience and demonstrable research innovation in: developing and applying computer vision and/or large language models; **AND**/***OR*** machine learning interpretability, explainability, and/or uncertainty quantification.	E	A/I
A PhD (or equivalent commensurate professional experience and/or qualifications) in a field with significant use of both computer programming and advanced statistical or numerical methods, e.g., machine learning, AI, computer science, mathematics, statistics, physics, engineering.	E	A/I
Experience developing software in a scientific computing context, ideally using Python/Pytorch, including the use of established libraries used in data science and artificial intelligence research **AND** 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.	E	A/I
Excellent written and verbal communication skills, including the ability to present complex or technical information, and to adapt the style of communication effectively for diverse audiences to ensure understanding. This includes experience conducting and publishing research to the standard required by top-tier peer-reviewed journals/conferences, and working with stakeholders to identify, understand and refine problems, scoping data science research to solve them.	E	A/I
Demonstrated enthusiasm and ability to rapidly assimilate new computational and algorithmic ideas and techniques on the job, at a more than superficial level, and apply them successfully.	E	A/I
Experience in carrying out research independently; scoping and investigating research questions within a given overarching theme, initiating, planning and prioritising activity within subsequent research projects, and leading such projects to successful conclusion. Ability to mentor others and evaluate, oversee and supervise more junior colleagues' work when required.	E	A/I
Commitment to EDI principles and to the Organisation values (outlined below) and proven ability to work effectively both as part of a team and in cross collaboration with other teams as required by the role, remotely when needed.	E	A/I
Must be eligible for SC clearance and be willing to undergo the clearance process once in post, if not already held	E	A/I

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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, no photo) and covering letter (maximum 2 pages) telling us:

- **Your experience innovating with code and/or data to solve real-world challenging problems.**
- **Why you would like to become part of the Turing's Defence and Security Programme.**
- **How your skillset would complement the activities of the AiTASHA project.**

As these roles require eligibility for Security Check (SC) clearance, you are required to include the following information as part of your cover letter:

- Your current nationality
- Your nationality at birth
- Other nationality (include dual nationality if applicable)
- Confirmation that you have been residing in the UK for the past 5 years (if you haven't, please provide details of when and where you resided and the reason)

Please note, if these details are not provided, we will be unable to progress with your application.

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

CLOSING DATE FOR APPLICATIONS: SUNDAY 14 JUNE 2026 at 23:59 (LONDON, UK, BST)

Interviews will take place in June, and the successful candidate will need to be in post by 01 August 2026.

TERMS AND CONDITIONS

This full-time post is offered on a fixed term basis for 2 years from the start date. The annual salary is £56,840 – £58,482 plus excellent benefits, including flexible working and family friendly policies, Employee-only benefits guide | The Alan Turing Institute

The Alan Turing Institute is based at the British Library, in the heart of London's Knowledge Quarter. We expect staff to come to our office at least 4 days per month. Some roles may require more days in the office; the hiring manager will be able to confirm this during the interview.

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***.***

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.