

# The Alan Turing Institute

Senior Research Fellow, FAIR Programme

## 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 evidencebased 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. Today it is home to more than 300 researchers, a rapidly growing team of in house research software engineers and data scientists and a business team.

## BACKGROUND

The FAIR Programme, is an academic industrial collaboration which aims to develop an actionable framework for trustworthy and reliable AI adoption at scale within Financial Services industry. We are aiming to do this by tackling three key challenges:

- **Development of robust AI assurance frameworks**, including the design and testing of AI assurance methods to assess the robustness, explainability, fairness or privacy of AI systems. This includes contributing to the development of auditable validation tools and scalable frameworks that can be adapted across a wide range of AI use cases, from time series forecasting to anomaly detection.
- **The advancement of AI-powered financial crime detection**, including early-warning systems capable of detecting emerging financial threats. Collaborating with data scientists, financial crime analysts, and regulators, the candidate will use real-world transactional data (where permitted) to design innovative AI models that enhance resilience while minimising bias and unintended harms.
- **Design and Development of Trustworthy Agentic Workflows**, focused reinforcement learning optimisation, supervised fine tuning, RLHF and alignment uncertainty quantifications and LLM-as-judge evaluations.

Find out more: [FAIR: Framework for responsible adoption of artificial intelligence in the financial services industry](#)

The successful candidate will play a central role in advancing the FAIR programme's mission to become the trusted authority on AI innovation within the financial services sector. The role holder will:

- **Conduct cutting-edge research:** Develop novel algorithms, models, and techniques —pushing boundaries in areas such as multiagent reinforcement learning, bandit methods, anomaly detection, privacy, robustness, and uncertainty quantification.
- **Develop and evaluate models:** Design, implement, and rigorously evaluate AI agents. Apply prompt engineering, few-shot learning, post-training methods, and meta-reasoning to enhance performance and robustness in diverse, real-world scenarios.

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- **Collaborate with a world-class team:** Partner with research scientists, engineers, and product teams across the Alan Turing Institute, University of Edinburgh, University of Oxford, UCL, University of Cambridge and University of Warwick. Share findings in top-tier conferences and journals, and contribute to product roadmaps that bring your research to life.
- **Contribute to real-world impact:** See your research shape AI solutions in the financial services industry and beyond

The collaborative research responsibilities of this role will include working alongside world-leading experts from prestigious universities such as Oxford, Cambridge, Warwick, UCL, and Edinburgh, and engage with key financial industry leaders. The impactful work of the role contributes directly to shaping the future of AI in financial services by creating frameworks, standards, and tailored AI solutions for the global financial sector.

## Why Join FAIR?:

- **Cutting-edge Research:** Work on high-impact, high-visibility projects at the intersection of AI and Finance with leading experts.
- **Interdisciplinary Collaboration:** Join a diverse, dynamic team committed to solving real-world challenges in AI, data science, and financial services.
- **Global Influence:** Contribute to the creation of global standards and methodologies for responsible AI, impacting the future of finance.

We are looking for a passionate, forward-thinking individual who wants to make a meaningful impact. Shaping the future of AI in financial services and driving the responsible adoption of these is key to this role.

The role holder will join a vibrant research community of over 20 researchers from top UK universities, collaborating with experts such as: Sam Cohen, Gesine Reinert, and Marta Kwiatkowska (Oxford), Carsten Maple and Graham Cormode (Warwick), Adrian Weller (Cambridge), Philip Treleaven, Ni Hao (UCL), Lukasz Szpruch (Edinburgh).

## DUTIES AND AREAS OF RESPONSIBILITY

- Conduct original research in the fields of artificial intelligence, machine learning, or related disciplines, addressing complex technical challenges with practical applications and lead a team of researchers working in this area.
- Support the work of policymakers, regulators and financial services and others by providing advice, attending workshops and giving talks.
- Lead on writing and manage the delivery of reports capturing best practice for industry, blogs and insight reports.
- Support with building the PAIF community at The Turing, including the running of workshops, bilateral meetings and dissemination events for the wider industry.
- Support the PIs in writing grant applications and submitting funding proposals.
- Take responsibility for driving collaboration with academic experts and broader research partners from across the Turing, and the wider Turing / project community.
- Contribute to the strategic leadership of the institute and take strategic ownership and technical project management for the team, as defined by the Institute's goals and interests. This includes line management and the professional development of the team. Supervise the work of junior members of the team and provide guidance as required,
- Carry out collaborative projects with colleagues in partner institutions, and research groups.

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- Represent the project at internal and external events hosted by the Turing, our collaborators and/or the partner. This also involves building and maintaining relationships with a selection of external and internal stakeholders.
- Work closely with other researchers, data scientists, software engineers, and product teams to translate research insights into scalable solutions.

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

<b>Skills and Requirements</b> Post holders will be expected to demonstrate the following:	<b>Essential (E) Desirable (D)</b>	<b>Tested at application (a) Tested at interview (i)</b>
<b>Education/Qualification</b>		
PhD-level degree in Machine Learning, Data Science, or a related field, or equivalent research, industrial or commercial experience.	E	A
<b>Knowledge and Experience</b>		
Experience in one or more of the following areas: technical ML, AI assurance, Synthetic Data Generation, LLMs orchestration, Anomaly detection, Bandits and RL, and AI policy development.	E	A/I
Understanding of the technical and regulatory challenges facing financial services in the operationalisation of AI, including generative AI.	E	A/I
Track record of the ability to initiate, develop and deliver high quality research aligned with the research strategy indicated by the PI and any industrial stakeholders and to publish in peer reviewed journals and conferences.	E	A
Ability to creatively solve problems, working both independently and with other team members.	E	I
Demonstrable leadership experience, including line management in a previous role, including performance management and appraisals.	E	A
Excellent publication record.	E	A
Experience of initiating and managing collaboration with colleagues in partner institutions, and research groups.	E	I
Experience in the design and prototype of novel AI algorithms, frameworks or systems that push the boundaries of current AI technology	E	A I
Experience working with funding bodies, attracting funding and managing research budgets.	D	A/I
Ability to create an innovative and creative environment for research.	D	I
Demonstrable interest in financial services.	D	A/I
<b>Communication</b>		
Excellent verbal and writing skills and proven ability to communicate complex, specialist or conceptual information/research findings clearly and persuasively to diverse audiences.	E	A & I
<b>Team Development</b>		
Ability to lead a large project with responsibility for developing and communicating action plans and objectives linked to organisational strategy.	E	A/I
Experience of managing workforce and/or financial planning in response to current and future needs for the project.	E	A/I
<b>Project Management &amp; Project Delivery</b>		
Experience of making recommendations to contribute to strategic planning.	E	I
Be aware of external factors impacting on workload and monitor resourcing requirements to continuously provide a quality service	E	I

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<b>Analysis and Research</b>		
Ability to organise working time, take the initiative, and carry out research independently, under the guidance of the PI.	E	I
Ability to report findings to wider community and to withstand challenge by relying on evidence gathered and processes used for analysis.	E	I
Expert understanding the technical development of, regulatory challenges of, and practical implementation of, AI within financial services.	E	I
<b>Other Requirements</b>		
Commitment to EDI principles and to the Organisation values	E	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 and covering letter. If you have questions about the role or would like to apply using a different format, please contact us at [recruitment@turing.ac.uk](mailto:recruitment@turing.ac.uk).

**CLOSING DATE FOR APPLICATIONS: MONDAY 25 MAY 2026 AT 23:59 (LONDON UK, BST)**

## TERMS AND CONDITIONS

This full-time post requires an immediate start and is offered on a 12 month fixed-term basis. The successful candidate must be in post by June 2026.

The annual salary is £70,179 - £76,027 (depending on experience) 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

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](mailto: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](mailto: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.

# 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