The Alan Turing Institute

Research Associate, FAIR Programme

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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 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 several 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 learnig optimisation, supervised fine tunning, RLHF and alignment uncertncertainty quantifications and LLM-as-judge evaluations.

Find out more: FAIR: Framework for responsible adoption of artificial intelligence in the financial services industry.

ROLE PURPOSE

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 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).

HOW YOU WILL MAKE AN IMPACT

- Scope, pilot and deliver high quality research activity under the Direction of the Principal Investigator and Co-Investigators.
- Drive collaboration with academic experts and industrial research partners from across the Turing and the wider Turing community
- Publish and disseminate high-quality research papers and publications detailing research output and project case-studies.
- Work with industrial partners to design and test technical solutions to key challenges in AI governance, and operationalisation.
- Become part of the broader FAIR Programme team.
- Present, disseminate and explain technical topics to colleagues, external partners, and broader community by preparing and presenting reports, blog posts, organising and delivering presentation, and taking an active role in meetings and discussions. Act as an advocate for programme's brand and outputs.
- Continuously update your knowledge concerning AI in Financial Services, including staying up to date with the news, emerging policy, and regulation.
- Work collaboratively with a team of research associates focused on fundamental research in each of the themes of FAIR and develop responsible AI tools and techniques through the FAIR framework.
- Present, disseminate and explain our work at internal and external events hosted by Turing and/or the partner.
- Develop documentation and manuscripts explaining research outputs for commercial partners and test outputs on use cases provided by partners.
- Contribute to the life of the Institute and support its community.

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		
Research Associate level: PhD in Mathematics, Computer Science or a closely related discipline.	**E**	**A**
Research Assistant level: Near completion of a PhD or equivalent level of professional qualification in Mathematics, Computer Science or closely related discipline.	**E**	**A**
Knowledge and Experience		
A solid background in one or more of the following: (multiagent) reinforcement learning, bandit methods, anomaly detection, privacy, robustness, uncertainty quantification, quantitative finance.	**E**	**A**
Understanding of the technical challenges facing financial services in the operationalisation of AI, including generative AI.	**E**	**A&I**
Experience in design, development and implementation of research software tools and libraries, such as Python, Java, GPU programming (Tensorflow, PyTorch, etc), symbolic verification (SAT, SMT)	**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&I**
Track record of outstanding research and in delivering impact appropriate to career stage	**E**	**A**
Experience in publishing research papers, reports for industry and the general public, code libraries or technical reports and giving presentations or classes on technical subjects for non-technical audiences.	**E**	**A/I**
Ability to rapidly assimilate new computational, mathematical and statistical ideas and techniques on the job and apply them successfully.	**D**	**A/I**
Ability to create and promote a collegial and collaborative approach to interdisciplinary research activities.	**D**	**A/I**
Communication		
Excellent writing and communication skills and proven ability to communicate complex, specialist or conceptual information/research findings clearly and persuasively to diverse audiences, including the ability to explain technical concepts to technical and non-technical audiences.	**E**	**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**

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Liasion and Networking		
Participates in networks within the organisation or externally to share knowledge and information in order develop practice or help others learn	**E**	**A/I**
Works effectively with technical as well as executive teams at external partners, and understands how to turn commercial challenges into effective research projects.	**D**	**A/I**
Decision Making Processes and Outcomes		
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**
Other Requirements		
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.

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 £45,505 - £51,465 (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

Candidates who have not yet been officially awarded their PhD will be appointed as Research Assistant at a salary of £42,593 per annum.

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 to find out how we can assist you.

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***.***

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.