RESEARCH ASSOCIATE, HUMANITIES AND SOCIAL SCIENCES IN HUMAN-AI TEAMING

Humanities, Arts and Social Sciences in Data-Centric Engineering

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. 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

This initiative within Data-Centric Engineering at The Alan Turing Institute works to advance ambitious and novel research at the intersection of data-centric engineering with the humanities, arts and social sciences, with a focus on high risk and high potential concepts, and on empowering a sustainable and safe future for all.

As the interactions between people and intelligent systems becoming increasingly sophisticated, it becomes necessary to address both human and technical dimensions together. The initiative is advancing a novel field of inquiry between the humanities, arts, social science and data-centric engineering on the interactions and synergies between humans, AI, and physical systems. The aim is to holistically address the fundamentals of human–AI collaboration and interaction in intelligent environments and thereby underpin equitable and effective work on Turing's grand challenges.

Human-AI teaming refers to the collaborative interaction between humans and AI systems to enhance decision-making and performance across various domains. This project will investigate how diverse fields can enhance the foundational principles of human-AI synergies and interactions. It will integrate the humanities, arts and social sciences into the study of human-AI teaming, offering a holistic approach to enhance technological innovation while also ensuring that AI systems are ethical, inclusive, and deeply attuned to human experiences and values. The research will bridge between

and combine these and other perspectives to make possible breakthroughs between traditional disciplinary spaces and to develop new transdisciplinary theory and methodology. This is combined with effective strategies to bridge between theory and applied innovation to generate real-world impact and tackle the challenges of today and tomorrow.

ROLE PURPOSE

We are recruiting a Research Associate to conduct research of excellent quality on the fundamentals of human–AI collaboration and interaction, and introduce humanities and social science perspectives to the study of human-AI teaming. This is an opportunity for an interdisciplinary researcher with a robust social science or humanities background, eager to explore and shape the convergence of the humanities and design, social and cognitive sciences, with data science and engineering, to foster innovative and responsible human-AI teaming.

You will play a central role as part of a cross-disciplinary team to establish a novel area of inquiry between traditional disciplinary spaces. To that end, you will identify problems and develop questions that can be of vital importance to the different domains, and facilitate their investigation from multiple disciplinary perspectives. You will be central to an international effort to unite the strengths of humanities, arts, social science, engineering, and data science to address societal, environmental and economic challenges.

The focus is integrating humanities, arts and social sciences into data-centric engineering to better understanding human–AI synergies and interactions in engineered systems and intelligent environments. Specific interests include the interplay between agency and explainability within human-AI interactions in intelligent environments, data-driven and ethical decision making, and approaches to design and evaluation that foreground human experience and context.

You will conduct independent and collaborative research on the theme, participate in experiments in which experiential prototypes facilitate understanding of human-AI interactions and synergies in various settings, and help to convene an international community committed to advancing the theme. A key output will be a white paper outlining research directions, priorities, and methodologies on integrating humanities, arts and social sciences into data-centric engineering to enrich the discipline and deliver transformative impact.

This opportunity will suit an innovative, interdisciplinary researcher who is passionate about the potential for cross-disciplinary research to change the world for the better. You will have access to opportunities to advance your research and to develop an international profile at the cutting edge of this field. You will join an interdisciplinary team within the Data-Centric Engineering programme at The Alan Turing Institute, with strong collaborative links to The New Real at the University of Edinburgh. The Principle Investigator and Theme Lead for Humanities, Arts and Social Sciences Prof Drew Hemment currently spends most of his time at Edinburgh with occasional visits to The Alan Turing Institute in London. The Alan Turing Institute has adopted a hybrid working model with an expectation for full-time employees to come to the office at the British Library in London at least 4 days per month.

DUTIES AND AREAS OF RESPONSIBILITY

- Undertake research of excellent quality introducing humanities and social science perspectives to the study of human-AI teaming.
- Be an advocate for boundary-crossing and outwardly-engaged forms for research.
- Facilitate and empower, ensuring voices can be heard across disciplinary boundaries.
- Publish and disseminate high-quality research papers and publications detailing research output and project case-studies.
- Communicate or present research outputs to diverse stakeholders, through conferences, events, meetings, and press opportunities as appropriate.
- Engage a diverse range of stakeholders, including academic communities, industry groups, government agencies, regulatory bodies, and the public.
- Participate in internal meetings with relevant groups, stakeholders, as well as external meetings with representatives of industry and potential partner organisations.
- Work collaboratively with academic experts and broader research partners from across the Turing and the wider Turing community.
- Support a programme of public engagement activities.
- 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.

OTHER DUTIES

- Teaching may be required as part of collaboration work.
- International travel may be required for the role.

REQUIREMENTS

- Research Associate level: PhD in a relevant Social Science or Humanities discipline or demonstrable equivalent experience (if close to PhD completion, Research Assistant level will be considered)
- A solid background in one or more of the following: human-AI interactions, science and technology studies, AI ethics, extended cognition, cognitive outsourcing, AI arts, AI safety, explainable AI.
- Advanced proficiency in qualitative methods including human subject experimentation, ethnography, interviews, thematic analysis; adept at using NVivo or ATLAS.ti for data analysis.
- Familiarity with current trends in AI, data science, or engineering, and an interest in applying humanities and/or social science perspectives to these fields.
- Track record of high quality research, as evidenced by journal and conference publications or equivalent research outputs.
- Experience in interdisciplinary research and of working in diverse and cross-disciplinary teams.

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		
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		
Research Associate level: PhD in a relevant Social Science or Humanities discipline or demonstrable equivalent experience.	E	A
Research Assistant level: Near completion of a PhD or equivalent level of professional qualification in the above areas.	E	A
Knowledge and Experience		
A solid background in one or more of the following: human-AI interactions, science and technology studies, AI ethics, extended cognition, cognitive outsourcing, AI arts, AI safety, explainable AI.	E	A
Advanced proficiency in qualitative methods including human subject experimentation, ethnography, interviews, thematic analysis; adept at using NVivo or ATLAS.ti for data analysis.	E	A & I
Familiarity with current trends in AI, data science, and/or engineering, and an interest in applying humanities and/or social science perspectives to these fields.	E	A & I
Track record of high quality research, as evidenced by journal and conference publications or equivalent research outputs.	E	A & I
Experience in inter- or cross-disciplinary research and of working in diverse and cross-disciplinary teams.	D	A & I
Communication		
Effective communication (oral and written), presentation and training skills.	E	I
Excellent writing 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
Liaison and Networking		
Participates in networks within the organisation or externally to share knowledge and information in order develop practice or help others learn.	D	A/I
Willing to represent the Turing at events and external meetings	E	A/I
Initiative and Problem Solving		
Demonstrated ability to initiate, plan, organise, implement and deliver programmes of work to tight deadlines.	E	I
Ability to use own judgement to analyse and solve problems.	E	I

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Analysis and Research		
Ability to organise working time, take the initiative, and carry out research independently, under the guidance of the PI.	**E**	**I**
Good analytical skills to formulate and address research questions.	**E**	**I**
Other Requirements		
Commitment to EDI principles and to the Organisation values.	**E**	**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 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

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 on 020 3862 3536 or email recruitment@turing.ac.uk.

CLOSING DATE FOR APPLICATIONS: 7 August 2024 at 23:59 (BST)

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TERMS AND CONDITIONS

This full time post is offered on a fixed term basis for 2 years. The annual salary is £44,180 to £49,966 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 £41,352 per annum.

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 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 adjustments@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*.*