

The Alan Turing Institute

Research Project Manager, Turing-NATS Partnership

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 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 in house research software engineers and data scientists and a business team.

BACKGROUND

The Turing-NATS Partnership

Advancing Probabilistic Machine Learning to Deliver Safer, More Efficient, and Predictable Air Traffic Control

The Turing and NATS have been working together since 2018, and so far have collaborated on a research project <https://www.turing.ac.uk/research/research-projects/decision-making-under-uncertainty-air-traffic-control> and on two Turing Data Study Group challenges. For more information about the impact of the collaboration so far please see <https://www.turing.ac.uk/research/impact-stories/putting-ai-air-traffic-control>

The collaboration is now embarking on a new programme of research, entitled *Advancing Probabilistic Machine Learning to Deliver Safer, More Efficient, and Predictable Air Traffic Control* led by Tim Dodwell (Turing AI Fellow at University of Exeter) with Evelina Gabasova (Turing Principal Research Data Scientist), Mark Girolami (Turing Programme Director for Data Centric Engineering programme), Richard Everson (Professor of Machine Learning at University of Exeter and Turing Fellow), Edmond Awad (Assistant Professor at University of Exeter), Adrian Weller (Turing Programme Director for the AI programme), and our partners at NATS including Richard Cannon (Research Lead).

The ambition of this partnership between NATS and The Alan Turing Institute is to develop the fundamental science to deliver the world's first AI system to control a section of airspace in live trials.

The collaborative research will take a hierarchical approach to air traffic control (ATC) by developing a digital twin alongside a multiagent machine-learning control system for UK airspace. Furthermore, the partnership will develop technical approaches to deploy trustworthy AI systems, considering how safety, explainability and ethics are embedded within our methods, so that we can deliver new tools which work in harmony with human air traffic controllers in a safety-critical environment.

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Programme Management

The Alan Turing Institute has ten Programmes of scientific research in key areas of AI and data science, each led by a Programme Director. There are also a small number of significant programmes of activity which sit across several research Programmes.

This role sits within the Institute's Programme Management directorate, which is responsible for the management and delivery of these programmes in support of the senior academic Programme Directors and Principal Investigators. The team oversees millions of pounds of data science and AI research, training and knowledge exchange programme initiatives in these programmes, ensuring they are managed to business requirements, specification, time and budget.

There are a number of Programme and Research Project Managers within the team, usually focussed on one research Programme or programme of activity, but who may provide programme and project management capabilities and support to other projects or activities from time to time as required. Programme managers and Research project managers are not permanently attached to programmes and may be moved to other research programmes in-line with business needs, and may have the opportunity to support other programmes, both ad-hoc or more formally. The postholder will be recruited initially into the role of Research Project Manager to focus on the Turing NATS Partnership.

ROLE PURPOSE

The Research Project Manager will coordinate and oversee a portfolio of research projects and workstreams within the Turing-NATS partnership programme of research. The post holder will work with the Principal Investigator (PI) and Co-Investigators (Co-Is), and the Programme Manager as well as postdoctoral researchers, research engineers and software engineers to ensure effective leadership and management of the research programme and coordinate each research project or workstream from concept to implementation; this will involve understanding and managing the resource requirements for each project, drawing up detailed financial plans, supporting further funding applications if required, agreeing on clear milestones for each project/workstream, ensuring that the deliverables are completed on schedule, as well as providing regular updates to the Institute's leadership on the progress of each project and workstream.

The Research Project Manager will coordinate and support a multi-disciplinary team of researchers, research engineers, data scientists and others across a range of partners. These include the Turing, and the universities of Cambridge and Exeter, and of course with the partners at NATS. The successful candidate will be responsible for coordinating the organisation of project meetings, facilitating their delivery (including minuting), arranging events and workshops, and managing the relationship with funding agencies and partners. The Research Project Manager will also need to liaise closely with Institute research and operations staff, in London, at university and research centre partners, to perform their duties. Management of small projects in other areas may also be required, subject to business needs.

This role reports to the Programme Manager, Turing-NATS partnership.

DUTIES AND AREAS OF RESPONSIBILITY

Research project management and delivery

- Coordinate and oversee the delivery of research projects and workstreams. This will involve:
 - Working with the research teams to outline the resource requirements for each project, to support them in applying for funding (if needed) or securing the resources, to agree on clear milestones for each project and workstream, and to ensure that the deliverables are completed on schedule.
 - Working with the Turing's finance team to draw up detailed financial plans and reports for each project/workstream, and with the Institute's legal counsel to put the right contracts in place.
 - Providing regular updates to the Institute's leadership on the progress of projects/workstreams.
 - Working alongside the communications team to disseminate outcomes.
- Coordinate the programme's events, training, and knowledge exchange initiatives. This will involve:

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- Working alongside researchers and the programme's leadership to identify a suitable venue for each initiative, to shape the agenda, to create the guest list, to publicise the initiative, and to ensure that meeting minutes are taken and distributed.
- Maintain up-to-date records that enable effective monitoring, control and evaluation of the programme's research initiatives.
- Produce regular reports on activity to external partners and funders.

Programme operations and resources management

- Perform resources planning and financial analysis for the programme. This will involve assisting in the preparation of the programme's budget, anticipating future staffing and operational needs, identifying potential funding sources, as well as managing the programme's office space and payment of expenses;
- Coordinate the delivery of strong programme governance. This will involve developing, writing, and editing reports and presentations for the Institute's senior leaders, Board of Trustees, and funders, which outline the programme's progress and initiatives; as well as project board agendas, papers and minutes.
- Working with the People team, organise the recruitment of additional programme researchers or administrative staff. This will involve supporting coordination of writing job advertisements, organising interview panels, and overseeing the onboarding process for new hires.
- Provide day-to-day support to the PI and research leadership for the programme.

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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		
Degree or equivalent level of professional qualifications and/or experience	E	A
Relevant experience in project management	E	A / I
Formal training in one or more project management processes (Scrum, Lean, Agile, Prince II, etc.) as well as familiarity with project management tools and software	D	A
Knowledge and Experience		
Strong project management and organisational skills: the ability to plan, execute, and keep on schedule numerous projects in an organised fashion;	E	A / I
Budget management and financial processes	E	A / I
Experience in managing complex research projects involving internal and external partners	D	A / I
Experience working with or in industry research projects	D	A / I
Experience of contractual agreements for research (collaboration, funding etc.)	D	A / I
Experience in facilitating research using sensitive health data, or other sensitive data	D	A / I
An interest in data-driven research.	D	A / I
Experience working closely with Finance team on budget planning, reporting, reconciliations	E	A / I
The ability to form and maintain relationships with a wide range of people at all levels	E	A / I
Communication		
<u>Verbal Communication</u> Routinely explains more complicated non-routine matters/policies/procedures clearly by explaining technical/specialist terms commonly used in own area of work. Adapts the style of communication to the audience and ensures understanding. Occasionally, will be required to communicate 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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<p><u>Written and electronic communication</u></p> <p>Routinely required to understand, use and interpret technical/specialist terms commonly in use in own area of work and explain complicated non-routine matters/policies/procedures clearly through a range of appropriate methods and with consideration to the audience.</p> <p>Occasionally, will be required to explain complicated matters simply, tailor delivery methods/media to suit the audience's needs and ensure understanding. Uses appropriate styles and arguments to influence and negotiate satisfactory outcomes.</p>	E	A / I
Decision-Making Processes and Outcomes		
<p>Independently make decisions which impact themselves or immediate team members. Escalate decisions where appropriate.</p>	E	A / I
<p>Work with others to make collaborative decisions that may be operational or strategic and impact immediate team or work area only.</p>	D	A / I
<p>Recommend and advise on available options for decisions that affect operational processes, taking into account any risks.</p>	E	A / I
Initiative and Problem Solving		
<p>Uses judgement to analyse and solve problems, and take action to prevent recurrence of problems.</p> <p>Consider possible solutions to identify those which offer wider benefits, and obtain evidence to support thinking.</p>	E	A / I
Service delivery		
<p>Accurate and up to date knowledge of Research Project Management in an Academic environment with internal and external stakeholders.</p>	E	A / I
<p>Adapts services and systems to meet stakeholders' needs and identifies ways of improving standards. Learns from complaints and takes action to resolve them.</p>	E	A / I
<p>Proactive approach to managing stakeholders and identifying opportunities for collaboration.</p>	E	A / I
Analysis and Research		
<p>Design and use data gathering and analytical methods appropriate for each investigation. Recognises and accurately interprets patterns and trends. Understands when additional data is required and identifies appropriate sources. Produces reports that identify key issues and findings.</p>	E	A / I
<p>Ability to define, measure, and track key metrics for each project</p>	E	A / I
Planning and Organising		
<p>Ability to balance competing priorities with minimal direction while maintaining a high standard of accuracy and attention to detail</p>	E	A / I
Other Requirements		
<p>Commitment to meeting deadlines</p>	E	A / I

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Flexible attitude towards work	E	I
Commitment to EDI principles and to the Organisation values	E	I

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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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 them on 020 3862 3575, or email recruitment@turing.ac.uk.

CLOSING DATE FOR APPLICATIONS: 02 August 2021 at 23.59

TERMS AND CONDITIONS

This full-time post is offered on a fixed-term basis until July 2026. This is also open to job share applications. The annual salary is £37,000-£40,000 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.

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.