

The Alan Turing Institute

Call for Turing Artificial Intelligence Fellows and Turing Senior Artificial Intelligence Fellows

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Summary

The Alan Turing Institute, the national institute for data science and artificial intelligence (AI), in partnership with the Office for AI (OAI) and UK Research and Innovation (UKRI) is launching this first call for Turing Senior AI Fellowships and Turing AI Fellowships.

The goals of this AI Fellowship initiative are to:

1. Build UK leadership capacity and capability in AI research by attracting, retaining and developing world-leading AI research talent in the UK;
2. Accelerate the delivery of impact from UK AI research through the facilitation of effective collaboration between leading AI researchers and both industrial colleagues and researchers in other disciplines;
3. Invest in leading researchers who will become effective leaders in the AI landscape and advocates of AI research through active engagement with policy-makers and the public.

The initiative covers a broad view of AI, including applications of foundational disciplines across mathematical sciences, statistical sciences, computational sciences and engineering. Successful Fellows will be expected to collaborate as appropriate across disciplines to ensure positive outcomes for UK society. Consideration may also be given to AI work that interfaces with the life sciences, social sciences or humanities.

These Fellowships will encourage world-leading AI researchers to build and consolidate significant research activity and profile within the UK. They also aim to accelerate the careers of the most promising mid-career AI researchers enabling them to grow their profile both nationally and internationally, build their research teams and extend their research collaborations.

These Fellowships provide the opportunity for leading researchers to undertake high quality, ambitious and transformative research with high impact, through the award of flexible funding. Fellows will have the opportunity to spend time at the Turing, working collaboratively across the Institute and benefiting from:

- Networking opportunities across the Turing's university partner network;
- Introductions to potential industry partners, collaborators and government bodies;
- National and international research collaborations facilitated through the programmes and supporting teams;
- Opportunities to shape the future of the AI landscape through advocacy, influencing policy and leadership;
- Access to the Turing's Research Engineering Team.

The budget for these Fellowships is up to £8.5 m over five years and we anticipate that between 3 and 5 Fellowships will be awarded depending on the seniority of the Fellows. Fellowships can be used to cover 0.5-1 FTE of the Fellow's salary, a research group and related activities. Fellows will be based in the UK and hosted by a UK organisation with significant ability to carry out research. This includes Higher Education Institutions, Independent Research Organisations, NHS bodies and Research Institutes (hereafter 'host organisation').

It is expected that the host organisation will support the Fellowship through a financial and/or in-kind contribution. In addition, financial and/or in-kind support from a suitable partner (or partners) from industry, the public sector or the charitable sector is encouraged.

This call is supported through the investment for new Turing AI Fellowships announced as part of the Autumn budget statement <https://www.turing.ac.uk/news/ps50-million-develop-world-leading-ai-talent-uk>. We anticipate there being further Fellowship calls in due course.

Background

The opportunities arising from AI and data are at the forefront of the UK's Industrial Strategy. This call marks the start of an ambitious agenda to grow the UK's AI research capacity and ability to translate this into real world impact. Turing Senior AI Fellows and AI Fellows will be supported to drive forward an ambitious research agenda with scope to build a research group.

This programme is funded by the Department for Business, Energy and Industrial Strategy and has been designed in partnership with the Department for Digital, Culture, Media and Sport as part of the Government's Industrial Strategy AI and Data Grand Challenge. The Challenge aims to put the UK at the forefront of the AI and data revolution and embed AI across the UK, sustaining and developing the UK's position as a world leader in AI, creating jobs, realising social benefits and driving economic growth.

The Industrial Strategy, and subsequent AI Sector Deal, built on the findings of the independent review [Growing the artificial intelligence industry in the UK](#) by Dame Wendy Hall and Jérôme Pesenti.

These Fellowships, announced as part of the AI Sector Deal, are intended to support this ambitious goal by developing and stimulating AI in academia and connected ecosystems across the country. The focus of the initiative is to attract, retain and develop world-leading AI research talent in the UK, which will attract and retain further high calibre academics and inward investment. Together they will inspire and teach the growing cohort of PhD students and early career researchers required to feed industry and academic demand. The collaborative research and skills created will feed in to local and national ecosystems to support businesses, thereby increasing productivity and supporting economic growth.

As the UK's national institute for data science and AI, the Turing is well placed to deliver these fellowships. At the Turing computer scientists, engineers, statisticians, mathematicians, and social scientists work together under one shared goal, with no departmental boundaries. As a collaborative hub, the Turing has roots in universities and centres of research excellence across the UK, and strong links to a growing network of industry, public sector, and third sector partners. As a convening power it brings together the best talent in the data science and AI community to speak to industry, policy-makers, and the public.

Equality, Diversity and Inclusion

We hope that the Fellowships will attract a diverse pool of applicants in an area where diversity can be limited. All applications will be considered on their merits. Applicants can be of any nationality and applicants from under-represented groups are encouraged to apply. We also welcome applicants who have taken a non-standard career path after their PhD, or who have taken a career break.

As part of this commitment we recognise that there may be individual circumstances that we need to be aware of. We aim to accommodate specific needs and personal circumstances, but are reliant on applicants and panel members sharing this information with us

To discuss an adjustment to the application process please contact our team directly at fellowship@turing.ac.uk or on +44 (0)20 3862 3345. There is also a section on the application form where applicants may make us aware of individual circumstances.

If there is information relevant to your application that we may need to consider when facilitating the review of your application or your attendance at interview, please contact us to discuss. This should be done early in the process or updated when circumstances change. For sensitive information the applicant should state clearly whether the information is confidential. Further information relating to communicating your requirements can be found in the *Frequently Asked Questions and Guidance Notes*.

We will treat any information you disclose to us as sensitive and will handle it in line with the Data Protection Act 2018. You find out more information about how handle your personal data in our Transparency notice. Information will only be used to arrange reasonable adjustments and will not be used to assess your application.

About the Fellowships

Disciplines and duration

Applicants are invited to submit proposals for up to five years in duration. The remit of this initiative is broad, covering all areas of Artificial Intelligence. The Fellowships have been designed to facilitate collaboration across disciplines and sectors, and between industry and academia, and support visionary research that will lead to the next generation of AI.

Examples of research areas which are of particular interest to the UK AI ecosystem include:

- Technical work on AI ethics (including fairness, interpretability and privacy);
- AI safety (including robustness, security and control);
- Robotics, vision and sensing, including service robotics;
- Reasoning and autonomous decision making with uncertainty;
- Multi-agent systems and agent-based modelling;
- Machine learning;
- Language (including Natural Language Processing);
- Applications of AI across a range of disciplines e.g. engineering, finance/economics, manufacturing, medicine, science, the environment and transport.

Responsibilities and Aims of the Fellowships

Successful candidates will be expected to demonstrate both vision and leadership in their chosen domain within AI. It is anticipated that the holders of the Fellowships will:

- Undertake a world-leading research programme and develop innovative, world-class research outputs helping to meet the Government's Industrial Strategy AI and Data Grand Challenge;
- Collaborate with other AI experts, across the Turing network, and with the broader industry, government and third-sector communities of AI users, towards outputs and outcomes that yield significant academic, societal or economic impact;
- Establish and lead a world-leading team, inspiring the next generation of AI experts and leaders;
- Seek to actively influence the direction of the UK AI agenda by engaging with key stakeholders such as industry, government and third sector.

Eligibility

- **Turing Senior AI Fellowships** are prestigious appointments for existing leaders in the field and applicants should already be demonstrating leadership equivalent to a full professorial position.
- **Turing AI Fellowships** are aimed at established mid-career researchers with recognised leadership potential.

Applicants should review the person specification to determine which Fellowship they feel best represents their experience.

Fellows are required to spend a minimum of 0.5 FTE (max 1 FTE) on the Fellowship and may spend the remainder of their time on other activities including working in industry, teaching or collaborating on other projects and complementary research subject to any UK visa restrictions, if applicable. Please see the Frequently Asked Questions and Guidance Notes document for full details.

To be considered for the Fellowship applicants must also meet the following criteria:

- Available to start the Fellowship to coincide with the start of the 2019-20 academic year. Ideally this will be October 2019, but no later than 31 December 2019;
- Hold a tenure or tenure-track academic post at the host organisation, either currently or at the point of starting the fellowship;
- Submit with the application a letter of support from the host organisation;
- Any offer made will be conditional upon, and subject to the successful candidates obtaining the right to live and work/study in the UK throughout the duration of their Fellowship.

We reserve the right to reject any applicant who does not meet these eligibility criteria without peer review and to award the Fellowship at the level deemed appropriate by the assessment process.

Personal Specification

Attribute	AI Fellow	Senior AI Fellow
Research leadership	<p>Evidence of commitment, passion and vision in their chosen field and potential to become a world leader.</p> <p>Demonstrated understanding of the national and international research landscape across AI disciplines and/or domains.</p> <p>Track record of obtaining funding to support research.</p>	<p>Demonstrated commitment, passion and vision to further a ground breaking and world leading research agenda.</p> <p>Experience and knowledge of the national and international research landscape across AI disciplines and/or domains.</p> <p>Sustained track record of obtaining funding to support research.</p>
Impact and benefit of proposed research	<p>Has a track record of outstanding research and in delivering impact.</p> <p>Shows a strong awareness of the international context of the research.</p>	<p>Has a track record of outstanding research and in delivering impact.</p> <p>Evidence of international standing and influence in the context of the research.</p> <p>Strong evidence of recognition in the community on an international scale.</p>
Collaboration and advocacy	<p>Ability to identify opportunities for research collaborations beyond own academic specialty.</p> <p>Ability to create and promote a collegiate and collaborative approach to research partnership activities.</p> <p>Communication and advocacy skills with the ability to express ideas and concepts clearly and coherently to diverse audiences and to engage in public debate.</p> <p>Ability to communicate and network across disciplines and to bridge both fundamental and applied research.</p> <p>Some experience of acting as an ambassador for their research area and demonstrated potential to advise and influence external stakeholders.</p>	<p>Talent for identifying opportunities for research collaborations beyond own academic specialty.</p> <p>Ability to create, promote and lead collegiate and collaborative approach to research partnership activities.</p> <p>Experience in applied AI research, for example in collaboration with industry.</p> <p>Communication and advocacy skills with the ability to express ideas and concepts clearly and coherently to diverse audiences and to engage in public debate.</p> <p>Ability to communicate and network across disciplines and to bridge both fundamental and applied research.</p> <p>Experience in managing multi-stakeholder engagement for example with industry, government and third sector.</p> <p>Experience of acting as an ambassador for their research area and of advising and influencing external stakeholders.</p>
Managing the Research environment	<p>Demonstrated abilities in project and financial management in the context of research projects.</p>	<p>Demonstrated abilities and experience in project and financial management in the context of research projects.</p>

Attribute	AI Fellow	Senior AI Fellow
	Has ability to develop, lead and support a successful research team and maximise the potential in others.	Demonstrated abilities and experience in developing, leading and inspiring successful research teams and maximising the potential in others.

Location and Host Organisation

Fellows will be based in the UK and hosted by a UK organisation with significant ability to carry out research. This includes Higher Education Institutions, Independent Research Organisations, NHS bodies and Research Institutes.

Host organisations will be required to produce a letter of intent at the Outline Stage for applicants. A full letter of support will be required only for those applicants who progress to the second assessment stage. Full details of what is required in letters of intent and support are available in the Frequently Asked Questions and Guidance Notes document.

The host organisation may support a maximum of three applicants.

Research partners (Industry, government and third sector partners)

Applicants are encouraged to seek an appropriate partner (or partners) for collaboration when considering the application of AI in a particular domain. Partners to support and/or collaborate may be from industry, the public sector or the charitable sector and selected to help deliver greater impact from the proposed research. Such collaboration(s) can enhance the proposed work in various ways, for example through cash contributions or in-kind commitments, such as expertise through staff time, software provision, use of facilities and/or top-ups to the applicant's salary, as the latter is often a barrier to recruiting or retaining talented individuals. The partner will not be eligible for any funding under this initiative.

Applicants will be expected to indicate how they intend to collaborate with specific data science and AI 'users' in Stage 1 of the application and, wherever possible, they should name collaborating organisations in their Stage 1 outline applications. Where appropriate, the Turing will offer additional support in seeking out additional research partners for all applicants who are successful in Stage 1 of the process, at their request. Letters of support from all proposed partners will be required in Stage 2 of the process (information on what must be included can be found in the FAQs).

Resources

The successful candidate will be awarded a competitive Fellowship of up to 5 years. Funds can be used flexibly for the following:

- 0.5-1 FTE Fellow salary contribution
- RA and Research Engineer salary and PhD student stipend/fees etc
- Travel and subsistence
- Equipment
- Consumables
- Research opportunities e.g. pilot projects
- Direct and in-direct costs

For full details of allowable costs please see the Frequently Asked Questions and Guidance Notes document.

Basic Terms and Conditions of Grant

Duration of appointment: Fellowship funding is available for up to 5 years.
Standard terms and conditions of the Fellowship will be published online in due course.

Application Process

Timeline

Stage 1:	Process	Deadline
Outline Proposal	Applications Open	18 February 2019
	Applications Close	29 March 2019
	Shortlisted candidates notified	26 April 2019
Stage 2: Full proposal	Full Proposal Submission Due	9 June 2019
	Interviews	w/c 15 July 2019
	Offers to successful candidates	w/c 22 July

How to apply

Stage 1: Outline Proposal

Applicants interested in the AI Fellowships are first required to submit an Outline Proposal. Applicants should apply through the Alan Turing Institute's [Flexigrant](#) application portal. Prior to starting an application applicants will be required to register with the system.

Applicants should review the Frequently Asked Questions and Guidance Notes document prior to starting their application. Applications must be submitted by **29 March 2019 23:00 GMT**.

Applicants must obtain the support of their host organisation at Stage 1 and a letter of intent must be submitted with the Outline Proposal.

Shortlisting and feedback

Outline proposals will be assessed by a shortlisting panel comprised of leaders in AI drawn from a broad range of academic disciplines.

Successful applications will be invited to Stage 2. All applicants will receive feedback following the completion of Stage 1 and applicants progressed to Stage 2 are encouraged to consider the feedback when preparing their full proposal.

Documentation Required

All documents submitted as part of the Outline Proposal are required to meet the following specifications:

- Size 11 Arial font;
- Margins of at least 2cm;
- All page limits are given as sides of A4.

The Outline Proposal will require the following documentation:

- Applicant CV (maximum 2 sides of A4);
- List of relevant research outputs (publications, software outputs, datasets);
- Case for Support (maximum 4 sides of A4);
- Letter of intent from host organisation (maximum 1 side of A4).

In addition to the above documentation applicants will be asked to complete the Flexigrant form which includes additional questions. All documents required as part of the application must be uploaded to the Flexigrant application system. Full guidance on the applicant process can be found in the Frequently Asked Questions and Guidance Notes document. For details of documents required for the full proposal please see below.

Stage 2: Full proposal

Applicants who are successful at Stage 1 will be invited to prepare and submit a Full Proposal. All applicants invited to submit a Full Proposal will also be invited to interview. The Turing will also offer applicants assistance in finding suitable research partners should they so wish and the scope of their project allows.

The Full Proposal will require the following documentation:

- Case for Support (maximum 8 sides of A4);
- Letter of Support from host organisation (maximum 2 sides of A4);
- Letter(s) of Support from confirmed research partners (maximum 2 sides of A4);
- Project Work Plan (maximum 2 sides of A4);
- Pathways to Impact Statement (maximum 2 sides of A4);
- Full financial expenditure breakdown (candidates will be asked to submit this information through the Flexigrant system);
- Justification of Resources (maximum 2 sides of A4);
- Two references (candidates will be asked to invite referees through the Flexigrant system).

Peer Review and Interview Panel

Full Proposal applications will be sent out for expert peer review.

All shortlisted candidates will be invited to an interview at the Turing.

The interview will involve a 10-minute presentation from the candidate on their application, which will then be followed by a 30 minutes of questions from the interview panel. Full details of the interview process including the format of the presentation will be sent to candidates selected for Stage 2.

Assessment criteria

The following assessment criteria will be used throughout all stages of the application process.

Stage 1: outline proposal

Criterion	Turing AI Fellow	Turing Senior AI Fellow
Candidate	The candidate has an outstanding record of research and delivery impact and is starting to show recognition in the community on an international scale.	The candidate has a sustained track-record of outstanding research and delivering impact and has the potential to be a world leader in AI.
Research programme quality and research vision	The candidate communicates a research vision that demonstrates outstanding quality, a high degree of novelty and potential for international significance and the ability to lead a successful research group.	
Impact and benefit of proposed research	The candidate communicates the potential for the proposed research to benefit the UK economy and society.	
Collaboration and advocacy	The candidate has clear plans to develop existing and build further multidisciplinary collaborations across the landscape and with multiple users, including partners, to develop research direction and deliver impact and the demonstrated ability to deliver these plans.	
Research environment	The host organisation commits to supporting the fellowship initiative, the research proposal and the applicant.	

Stage 2: full proposal – peer review

Criterion	Turing AI Fellow	Turing Senior AI Fellow
Candidate	The candidate presents clear plans for how the fellowship will ensure they will become a world leader in AI, including plans for developing their skills, becoming a leader of the international research community, and developing a diverse research team.	The candidate presents clear plans for how the fellowship will ensure they consolidate and build their position as a world leader in AI research, including plans for being a leader of both the international research community and a high performing research team.
Research programme quality and research vision	Candidate presents an excellent research programme which is novel and timely. Candidate outlines a robust methodology to attain their stated objectives, which is appropriate and feasible.	

Criterion	Turing AI Fellow	Turing Senior AI Fellow
Impact and benefit of proposed research	<p>The candidate articulates how the research will make a significant contribution to the field, and how it will contribute to the economic, social and cultural prosperity of the UK.</p> <p>The fit of the proposed research proposal of particular interest to the UK AI ecosystem.</p> <p>The candidate has clear and appropriate plans for the realisation of impact from their research and communication across various audiences.</p> <p>The candidate should consider diversity and ethics in their research and should address how these issues can be dealt with.</p>	
Collaboration and advocacy	<p>To develop existing and build further multidisciplinary collaborations across the landscape and with multiple users, including partners, to develop research direction and deliver impact and the demonstrated ability to deliver these plans.</p>	
Research environment	<p>The candidate presents an evidenced case as to the benefits to the research of their chosen host organisation, and the host organisation commits an appropriate level of support to the development of the candidate and to making a financial and/or in-kind contribution.</p>	
Resources	<p>Appropriateness of the project planning, resources and their management for the proposed fellowship activities and programme of research. Consideration of financial or in kind support from the host organisation and research partner(s) will be given.</p>	

Stage 2: full proposal – interview

The interview panel assessment will include the candidate's ability to meet the criteria set out above and the peer review and references provided. The full interview assessment criteria will be made available to successful candidates. The panel reserve the right to explore questions raised through peer review, consulting as appropriate. **THE CLOSING DATE FOR APPLICATIONS IS 23:00 29 March 2019 (GMT).**

Additional notes

The Alan Turing Institute reserves the right to reject applications that do not meet the remit of the scheme.

Informal enquiries about the application process should be directed to fellowship@turing.ac.uk