

The Alan Turing Institute

Community Manager: Open Collaboration – AIM RSF

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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 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

Many people suffer from multiple health conditions, particularly as they get older or are from less affluent areas. Most of the evidence base for medical care is about treating single conditions and we know surprisingly little about identifying and treating multiple long-term conditions (multi-morbidity) or MLTCs. Recently, this has become a strategic priority for the UK's National Health Service and research funders.

The Alan Turing Institute has been awarded a grant by the National Institute for Health Research (NIHR) to deliver a Research Support Facility (RSF) for the £23 million [Artificial Intelligence for Multiple Long Term Conditions](#) (AIM) investment. The NIHR AIM RSF team will support researcher teams from around the UK in their efforts to systematically identify new clusters of disease and the development of conditions over the life course. The research will develop insights into the identification and subsequent prevention of MLTCs.

The NIHR AIM RSF will be delivered jointly between the Turing's Tools, Practices and Systems and Health and Medical Sciences programmes, with collaborators from Swansea University, MRC Harwell and the University of Edinburgh. Together they will build capacity and capability in AI and MLTC-M research, foster a collaborative approach and a culture of shared learning, and provide a leadership role to facilitate impact from the AIM investment. The team will use their convening power and expertise to maximise the scientific impact and potential for patient benefit through five themes:

- Reproducible, secure and interoperable infrastructure
- Accessible, research-ready data
- Scientific community building and training
- Public and patient involvement and engagement (PPI/E)
- Sustainability and legacy

The [Tools, Practices and Systems](#) (TPS) programme at the Turing represents a cross-cutting set of initiatives which seek to build open source infrastructure that is accessible to all, and to empower a global, decentralised network of people who connect data with domain experts.

The [Health and Medical Sciences](#) programme at the Turing delivers research into the theory and methods of AI, statistics, and data analytics underpinning medical and health applications that will enable scientists to do better science, without compromising respect for privacy and patient trust.

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[The Turing Way](#) is an open source community-driven guide to reproducible, ethical, inclusive and collaborative data science. The project goal is to provide all the information that data scientists in academia, industry, government and the third sector need at the start of their projects to ensure that they are easy to reproduce and reuse at the end.

The NIHR RSF has been created to ensure that the funded research projects work together efficiently to answer questions relevant to patients and the general public using cutting edge analytical tools. One of the goals of the RSF is to ensure a sustainable legacy of open source tooling and metadata catalogues to ensure that the research is reproducible and reusable beyond the end of the funding period.

We are recruiting a Community Manager focused on Open Collaboration who will work to embed the expertise in the TPS, Turing Way and broader open source communities in the AIM consortium to ensure that this investment delivers FAIR (findable, accessible, interoperable and reusable) outputs that are greater than the sum of their parts.

ROLE PURPOSE

The AIM RSF Open Collaboration Community Manager will create, nurture and protect the conditions required for successful technical communication across the diverse and distributed AI for Multiple Long Term Conditions projects. We anticipate that the postholder will need to embody core values of *stewardship*, *compassion*, and *collaboration*, in addition to their commitment to equity and inclusion as described in the Turing's Values (see below).

Participatory, open source software development is multifaceted and can feel difficult to achieve for people across a variety of technical backgrounds. As a steward of their community, the Community Manager will see how individual pieces fit together as a whole. They will surface implicit knowledge and make information explicit so that everyone who wants to can participate. They will guide AIM researchers to see how their individual skills can take their project forwards, identify gaps in team members' expertise, and organise "just in time" training to facilitate communication across the AIM investment. These skills may be technical, for example, ensuring that everyone understands - to the extent that they need to - data standards, computational reproducibility, open source project management on GitHub, and linting and code review. Alternatively, they may be the communication, motivation and collaboration skills required to translate expertise from one specific area of focus to a related but distinct area across research teams. We expect the postholder to support AIM researchers in incorporating statistical reporting guidelines, responsible research and innovation practices, and communications with multiple audiences - including policy makers, clinicians, and members of the public - into their work.

The AIM investment can only achieve - and communicate - its ambitious goals if it is delivered by domain experts including clinicians, statisticians and software developers – working together. The ideal candidate for the AIM RSF Open Collaboration Community Manager will treat all members of the AIM investment with compassion. They will support people to share and promote the skills that they already have, understand the experiences of people from a range of diverse backgrounds, and identify what they need to effectively work together. They will actively foster a culture of collaboration.

The AIM RSF Open Collaboration Community Manager will collaborate with experts in the Turing institute and beyond. They will be an active contributor to *The Turing Way*, acting as bi-directional conduit to implement best practices for reproducible, ethical, inclusive and collaborative data science. We do not expect the applicants to already have all the skills within the scope of *The Turing Way* project. Rather that they will develop new expertise and grow in the role. They will also participate in the Tools, Practices and Systems programme, particularly in the development of responsible research and innovation practices.

The postholder will work closely with Dr Kirstie Whitaker and Prof Chris Holmes, Lead Investigators of the NIHR AIM RSF, and Dr Evelina Gabasova, AIM RSF Theme Lead for Scientific community building and training and Principal Data Scientist in the Turing's Research Engineering Group. They will also collaborate closely with Dr Malvika Sharan, TPS Senior Research and co lead investigator (with Kirstie Whitaker) of *The Turing Way*. Dr Evelina Gabasova will be their line manager.

DUTIES AND AREAS OF RESPONSIBILITY

- Map expertise, projects and datasets across the AIM research teams. Facilitate diverse and collaborative conversations to identify and prioritise open source software contributions and areas for training to allow everyone to participate in reproducible workflows on GitHub or GitLab.

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- Catalyse connections and collaboration between researchers working towards reproducible AI for MLTC research across the UK. This could come in the form of synchronous regular meetings but the discussions may also occur asynchronously, for example, through active engagement on distributed communication channels such as Slack and the maintenance of public and private GitHub repositories.
- Be an active contributor to *The Turing Way* project exemplifying the practices we want to promote within the community. This may include identifying gaps in the current material, writing new content, reviewing existing chapters, giving presentations about the project to new audiences, welcoming members of your own project communities to join *The Turing Way*, and contributing to the design of governance and decision making processes. Our vision is to build an interconnected web of open source communities in applied data science. We expect all community managers to attend regular co-working sessions and participate in discussions on research best practices across a project lifecycle.
- Foster a community of researchers with a particular focus on supporting the PhD students, postdoctoral researchers and members of the public wanting to learn more about delivering data intensive analyses on sensitive data. Implement practices - as defined in *The Turing Way*, and beyond - to ensure these team members demonstrate the highest standards of reproducible, ethical, inclusive and collaborative data science in their work. Some - but not all - of these practices include:
 - Onboard and welcome new community members. This will likely include running 1:1 inductions and continuously updating documentation to ensure that resources remain easy to find for new starters and existing team members alike.
 - Design, organise and facilitate innovative, inclusive events - remote and in person - for a broad range of community members and collaborators. These can range from small group focused meetings, through team 'coffee chats' to build community, informal mentorship and training, to collaborative contribution events such as hackathons, documentation sprints, or design scoping workshops.
 - Review code, analysis, visualisation and infrastructure process documentation. Support community members to participate in the collaborative review using pull requests or merge requests via the GitHub repository. This will likely require proactive 'just in time' training in using version control using git, and project management in public or private GitHub repositories, as appropriate.
 - Promote the sustainable use of research outputs by facilitating high-quality analysis, modelling and reporting documentation, and training materials, in collaboration with researchers, developers and domain experts.
 - Curate and finalise regular newsletter updates to capture impact stories, showcase community member contributions, and share progress for both internal and external audiences.
- Communicate technical topics to colleagues and external partners by preparing and presenting reports, blog posts, organising and delivering presentations, and taking an active role in meetings and discussions. Communications may be synchronous or asynchronous, remote or in person, and must be prepared at the appropriate granularity of detail for the audience.
- Publish - as a lead or co-author - peer-reviewed research articles, open source training curricula, and/or perspective, opinion and commentary articles, as appropriate. This responsibility will be defined to be aligned with the successful candidate's personal career goals, through collaborative discussion when they are in post.

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/Qualification		
PhD or equivalent level of industry experience.	D	A
Bachelor's degree or a Master's Degree in a discipline which provides a good basis for understanding statistics, data science and programming.	E	A
Knowledge and Experience		
Experience in: <ul style="list-style-type: none"> • Basic coding skills in any programming language. • Git for version control and Github or GitLab for project management. • An understanding of the importance of good practices for producing reliable software and reproducible analyses (e.g. version control, issue tracking, automated testing, package management, literate analysis tools such as Jupyter and Rmarkdown). • Experience managing, structuring and analysing research data. 	E	A/I
Experience in: <ul style="list-style-type: none"> • Open research, open source software, participatory and community-led co-creation or team science. • Contributing to, maintaining and/or leading open source research software projects. 	D	A/I
Knowledge of, or interest in learning about: <ul style="list-style-type: none"> • Facilitating research using sensitive health data, or other sensitive data, including an understanding of information governance requirements. 	D	A/I
Track record of <u>any combination</u> of: <ul style="list-style-type: none"> • Publishing articles, FAIR data sets, and/or open source software libraries for an academic audience. • Publishing articles, blog posts, for a general audience. • Publishing white papers or policy briefings for an audience of decision makers in government, industry or the charity sector. 	E	A/I
Communication		
Outstanding communication skills, both oral and written.	E	A/I
Teamwork and Motivation		
Works as a proactive and collaborative member of the community team. Proactively looks for issues or problems, and escalates accordingly.	E	A/I
Liaison and Networking		
Networks with others with shared interests, collaborating on projects and strengthening future relations.	E	A/I
Project Delivery or Project Management		

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Promptly deals with requests related to process improvement and supports the Community with aspects of project management.	E	A/I
Decision Making		
Ability to guide others by presenting options and choices to inform their decision making.	D	I
Planning and Organising		
Suggests ways of improving working practice and use of resources. Creates realistic plans to effectively manage own workload, prioritising work to meet personal and team objectives.	E	I
Initiative and Problem Solving		
Considers possible solutions to identify those which offer wider benefits. Obtains evidence to support thinking.	E	A/I
Analysis and Research		
Gathers data rigorously and conducts robust analysis, questioning assumptions and existing knowledge. Reports findings to wider community and is able to withstand challenge by relying on evidence gathered and processes used for analysis.	E	A/I
Other Requirements		
Commitment to meeting deadlines	E	A/I
Commitment to EDI principles and to the Organisation values	E	I

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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
- Inclusion**
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 3546, or email recruitment@turing.ac.uk

CLOSING DATE FOR APPLICATIONS: 13 February 2022

TERMS AND CONDITIONS

This full-time post is offered on a 2.5 year, fixed term contract basis (funding ends October 2024). The annual salary is £37,000-£42,000, 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.

We are committed to building a diverse community and would like our leadership team to reflect this. We therefore welcome applications from the broadest spectrum of backgrounds.

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.