The Alan Turing Institute

Research Associate, Agent Computing and AI to Achieve the 2030 Agenda

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.

THE ROLE

The applicant will work in the ESRC-funded project "Agent Computing and AI to Achieve the 2030 Agenda: New Methods to Infer Policy Priorities from Open Fiscal Data and Sustainable Development Indicators". The project aims at understanding how governments' policy priorities reflect in open spending data, and how this information can be used to understand the success or failure of development strategies. The applicant will also engage with the Turing's project "Policy Priority Inference" (bit.ly/PolicyPriorityInference), and with international collaborators such as the United Nations Development Programme and the Global Initiative for Fiscal Transparency. Thus, the applicant's research will have the potential of generating real-world impact.

The applicant is expected to implement methods from natural language processing, topic modelling, and machine learning in order to link government spending data to development indicators. Much of these data have been produced by Latin-American nations, so the applicant should be comfortable reading Spanish or using automated translation tools on large document databases. They will work closely with the project PI's in the production of academic papers, policy reports, and in the organisation of public-engagement activities.

While the project has clear goals and specific tasks, the applicant is encouraged to propose promising research directions and complementary datasets. Likewise, the project is open to contributing to different disciplines (publication outlets are not restricted to a single field), promoting interdisciplinarity and supporting the applicant's professional development. The Alan Turing Institute is a diverse organisation that welcomes cross-disciplinary and international collaborations, so the applicant is welcomed to be propositive on different ways in which the project could be enriched by growing its networks.

DUTIES AND RESPONSIBILITIES

- To build a large multi-lingual database of documents produced by governments, NGOs and international organisations on the topic of sustainable development;
- To build a text corpus that focuses on sustainable development and policymaking;
- To apply machine learning methods to analyse this database;
- To design and implement online surveys;
- To apply/develop estimation and uncertainty-quantification methods to agent-based models;
- To collaborate with the PI in the production of scientific papers and policy reports;
- To engage with stakeholder organisations that are part of the project, either by presenting work or co-organising events;
- To present the project's outputs at conferences and public-engagement events;
- To co-organise a datathon and design/teach tutorials.

PERSON SPECIFICATION

The successful candidate will have:

ESSENTIAL

- A doctoral degree (or a doctoral candidacy with a dissertation submission expected in 2021) with a mix of quantitative methods and social sciences; for example computational social science, development economics, political science, applied data science, etc.;
- A proven track record of excellent research papers (published or work in progress);
- Proven experience programming in Python;
- Proven expertise in natural language processing, topic modelling, and neural networks;
- Proven experience working in fields such as development economics and political science;
- Experience in surveying methods in the context of developing economies;
- Excellent written and oral communication skills;
- Strong ethics and interest in working in an interdisciplinary and multi-cultural environment.

DESIRABLE

- Familiarity with the Spanish language;
- Proven experience in working with development organisations;
- Knowlegeable about the 2030 Agenda of Sustainable Development Goals.

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, covering letter and contact details for your referees. If you have questions about the role or would like to apply using a different format, please contact them on 0203 862 3340 or email recruitment@turing.ac.uk.

CLOSING DATE FOR APPLICATIONS: 20 September 2020 at 23:59.

TERMS AND CONDITIONS

This full-time post is offered on a 2 year fixed-term basis with the possibility for a further extension (funding permitting). The annual salary is £35,000 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, gender reassignment, marital and civil partnership status, pregnancy, religion or belief or sexual orientation. Reasonable adjustments to the interview process can also be made for any candidates with a disability.

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***.***