Research Assistant – Analysis in Computational Social Science

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

AI FOR SCIENCE AND GOVERNMENT PROGRAMME

We are looking to recruit a Research Assistant to join the computational social science group within the Public Policy Programme. This position will focus on understanding labour market dynamics through the lens of job skills.

An understanding of the ways skills interact with each other to influence career trajectories of individuals, and the productivity of occupations is key to developing labour market policies (e.g. upskilling programs). Leveraging rich microdata covering multiple countries and novel techniques developed within the computational social science group, this analysis will yield insights into how workplace skills interact with each other to impact outcomes at the micro- and macro-level, as well as their evolution through the labour market.

Within The Alan Turing Institute AI for Science and Government programme, 'Shocks and Resilience' project we are seeking to develop tools that provide valuable insights to those developing resilient economic policies. This project will constitute a meaningful contribution to this goal.

ROLE PURPOSE

We are looking for an outstanding PhD student or recent graduate from a PhD programme to join the team, with a strong background in data science and experience coding. Ideally, the candidate will have some knowledge of labour dynamics, and have a keen interest in computational social science.

The candidate should have a strong background in data pre-processing and curation. Some familiarity to the principles of information theory and network science is ideal. The research assistant will have the opportunity to learn new technical skills and strengthen existing ones through the development of this project and the supervision of an interdisciplinary research team.

The successful candidate will report to Dr Omar A Guerrero, Head of Computational Social Science Research, and will be supervised by Dr Kathyrn R Fair, Research Associate, and Dr Hardik Rajpal, Research Associate. Informal enquiries can be directed to Dr Omar A Guerrero (oguerrero@turing.ac.uk).

DUTIES AND AREAS OF RESPONSIBILITY

- Curate a dataset linking job skills to industry output, including identifying data sources which could be used to enhance the dataset.
- Analyse the interdependencies between prevalence and demand of skills.
- Identifying statistical relations between the skills and the output generated across industries.
- Construct a network of labour flows and analyse the role of skills in influencing these flows.
- Review and keep updated with the research related to the analysis of skills in the labour market.
- Collaborate with the senior researchers and postdoctoral research associates overseeing the project to advance the research project described above.
- Construct work plans to facilitate delivery of project objectives in a timely fashion.
- Prepare research outputs to disseminate this work to a broad range of audiences, including policy makers, academic researchers, and the general public, and present these outputs at events and conferences.
- Participate in and contribute to the development of the broader body of research within the computational social science group.

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		
Currently undertaking a PhD in a relevant discipline or equivalent level of professional experience	**E**	**A**
Masters Degree or equivalent in a related discipline	**D**	**A**
Knowledge and Experience		
Expertise using computational tools to clean and pre-process large datasets.	**E**	**A**
Demonstrable background in the Python programming language.	**E**	**A I**
Experience working with employment data.	**D**	**A I**
Solid knowledge about labour dynamics.	**D**	**A I**
Experience with information theory and network science techniques.	**D**	**A I**
Communication		
Possess excellent communication skills with the ability to adapt to different audiences, as appropriate	**E**	A, I
Ability to negotiate and influence others	**D**	A, I
Liaison and Networking		
A proven ability to collaborate successfully in a multidisciplinary environment and to manage delivery of projects.	**E**	**A I**
Project Management & Project Delivery		
Ability to analyse stakeholder requirements and provide a high level of service when responding to queries	E	A
Decision Making		
Able to assess information and use it to support decision making	E	A, I
Able to contribute to discussions and make decisions as part of team	E	A, I
Analysis and Research		
Excellent writing skills and a proven ability to communicate research findings to diverse audiences.	**E**	**A**
Ability to adopt appropriate data analysis methods for the purpose, and produce simple reports to present the findings	**E**	**A**
Other Requirements		
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

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 3970 2148 or 0203 862 3340, or email recruitment@turing.ac.uk.

CLOSING DATE FOR APPLICATIONS: Wednesday 5 October 2022 at 23:59

TERMS AND CONDITIONS

This PART TIME post is offered on FIXED TERM basis until 31st March 2023. This post requires the successful candidate to be in post by mid-November or earlier.

The annual salary is £36,235 plus excellent benefits, including flexible working and family friendly policies, https://www.turing.ac.uk/work-turing/why-work-turing/employee-benefits

Please note all offers of employment are subject to the candidate having and retaining the right to work in the UK, being able to start work based in the UK, and satisfactory pre-employment security screening which includes a DBS Check by no later than mid November.

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***.***