The Alan Turing Institute

Research Assistant/Associate - Enhancing Security and Privacy of National Identity Systems

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

This position is about the design, deployment, and evaluation of Privacy Enhancing Technologies as part of new digital identity systems. Specifically, we are interested in using formalised logic (e.g. automated theorem proving) to verify the privacy aspects of digital infrastructure, in particular ID systems. This role in the project entails research into existing and new tools and techniques to support ID-as-a-service, that meets goals for privacy for users, and does not lead to unintended consequences.

DUTIES AND RESPONSIBILITIES

The post holder will work closely with the principal investigators and research associates based at Turing Institute to:

- To research into existing and new tools and techniques to support ID-as-a-service
- To assist with non-research activities such as maintaining and administrating databases, HPC and cloud resources, group and project websites.
- To contribute to research and publications or disseminate research findings using other appropriate media.
- To attend and present research findings and papers at academic and professional conferences, and to contribute to the external visibility of the departments and the university.
- To ensure compliance with secure handling of data and health and safety in all aspects of work.

PERSON SPECIFICATION

The successful candidate will have:

ESSENTIAL

- Successful candidates will hold (or be close to completing) a PhD in Computer Science or related dsicpline. Appointment at Research Associate level is dependent on having a PhD or having equivalent skills and experience through non-academic routes.
- Experience of or aptitude for rigorous computer system and security design, implementation, measurement and evaluation, including experiment design, data capture, and data analysis. This may have been gained in commercial or industrial settings as well as through production of academic papers. Good to substantial Knowledge of Privacy Enhancing Technologies capabilities and limitations is essential, especially basic privacy technologies, but also newer technologies, e.g. secure enclaves, differential privacy, and secure multi-party computations (for example).

- Ability to communicate clearly in English, in both written and spoken forms.
- Experience of working independently and in medium to large-scale teams, on collaborative and interdisciplinary research projects with academic and industrial partners. Dealing with users in the real world will be very important.
- Evidence of an excellent publication record, commensurate with level of experience.

  Candidates from outside academia may be able to evidence this by providing examples of technical writing or system design and implementation, published or distributed through channels other than academic conferences and journals, e.g., blog posts and/or software repositories.

DESIRABLE

- Familiarity with data science techniques and applications, including machine learning and statistics.
- Other language skills may be an asset.

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 3357 or email recruitment@turing.ac.uk.

TERMS AND CONDITIONS

This full time post is offered on a 6 month fixed term basis. The annual is £34,000 plus excellent benefits. https://www.turing.ac.uk/work-turing/why-work-turing/employee-benefits. Flexible working and family friendly policies.

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***.***