

The Alan Turing Institute

Data Science for Social Good Technical Mentor

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 Data Science for Social Good UK programme (DSSGx) is a 12-week project-based training programme designed to give data scientists a strong skill set for solving real-world problems and an understanding, excitement, and passion for solving problems with social impact. We have three goals (prioritised in that order):

- Training Fellows: We want to help create the next generation of data scientists who have the data science skills to solve real-world problems and are passionate about focusing their efforts on solving social challenges
- Exposing and training project partners (typically governments and non-profits) to better use data to make better decisions
- Community: Seeding a community of people and organisations working together to make an impact

The Data Science Technical Mentors (TMs) are a critical component of DSSGx. TMs work with dedicated teams of Fellows and provide hands-on technical mentoring and data science expertise to the projects. Each TM is teamed up with a Project Manager (see Project Manager job specification).

TMs are experienced data scientists with strong technical skills, practical experience, with an interest in mentoring students to learn real-world skills and make a social impact. Typically, TMs have worked in industry for a significant amount of time; working in areas such as Computer Science, Machine Learning, Social Science, Statistics, and related areas, and industry experience working on data science problems.

This role will be for 14 weeks between 8 June – 11 September 2020. You will be based at the University of Warwick, Coventry, UK. Support is available to find accommodation.

DUTIES AND RESPONSIBILITIES

- Project Lead on 2 - 3 projects
- Leads typically 2 or 3 teams of 3 - 4 Fellows
- Technical adviser
- Teach workshops and tutorials
- Develop some material for the taught components

PERSON SPECIFICATION

The successful candidate will have:

ESSENTIAL

- Experience with Python Data Science Toolkit (Panda, NumPy, Matplotlib, Scikit-Learn, Beautiful Soup)
- Experience with machine learning frameworks on, e.g Hadoop, Hive, Pig, Spark, MapReduce, distributed computing, and Azure or other cloud environment
- Professional experience in a field that utilizes modern day data science tools and methodologies
- An understanding of the importance of good practices for producing reliable software and reproducible analyses (e.g. git, issue tracking, automated testing, package management, literate analysis tools such as Jupyter and Rmarkdown)

Experience with one or more of:

- Working on real-world problems
- Managing and organising the parameters and results of computational experiments
- Computational statistics, particularly Bayesian modelling
- Data visualisation for understanding large, complex, or high-dimensional data
- Knowledge management and ontology engineering, semantic web
- Mixed or qualitative research methods
- Demonstrated enthusiasm and ability to rapidly assimilate new computational and mathematical ideas and techniques on the job, at a more than superficial level, and apply them successfully
- Code review in a distributed team
- Developing and/or delivering teaching and training in computational or mathematical methods for research.

DESIRABLE

- Experience with GitHub
- PhD in Data Science related fields
- Experience working on social impact projects and passion for making a social impact
- Experience in using large, scalable relational databases, ranging from PostgreSQL to redshift
- Writing technical documentation
- Experience with public cloud platforms
- Experience working with confidential and sensitive data for research
- Experience contributing to, maintaining and/or leading open source research software projects
- Experience building open source communities
- Working with databases and APIs for the acquisition of parameter information for models

- Automated testing, software quality assurance and continuous integration
- Able to explain mathematical concepts involved in statistics, probability and linear algebra
- User interface design and development with web technologies, especially for data visualisation and knowledge representation.

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 3394 or email recruitment@turing.ac.uk.

CLOSING DATE FOR APPLICATIONS: 16 February 2020

INTERVIEWS WILL BE HELD w/c 24th Feb

TERMS AND CONDITIONS

This full-time post is offered on a fixed-term basis of 14 weeks. We are happy to talk flexible working.. The annual salary is £50,000 plus excellent benefits. <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.