Research Fellow

(Natural Language Processing/Text Mining/Artificial Intelligence)

University of Birmingham.
Edgbaston, Birmingham, UK
Ref: 80779

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Organisation Advertising Description Institute for College of Medical and Dental Sciences

**Grade & Salary** 7 - Full time starting salary is normally in the range £30,395 to £39,609. With potential progression once in post to £42,036 a year.

**Duration of Post** Fixed Term Contract up to 4 years

**Hours** Full Time

**Job Purpose**

This role will be located in the Institute for College of Medical and Dental Sciences at the Edgbaston campus at the University of Birmingham.

This is an exciting and unique opportunity for an ambitious PhD graduate or post-doctoral data scientist with the ability and confidence to lead a strategically important Health Data Research UK Midlands Theme in collaboration with the Alan Turing Institute. The post holder will be a data scientist with a background in text mining, Natural Language Processing and Artificial Intelligence and will be responsible for the analysis of structured, unstructured, semi-structure health information held in clinical and biomedical environments.
### Main Duties

- Design, create, and apply novel state-of-the-art text mining and NLP-based methods within biomedical and clinical settings
- Model and develop ontology-based definitions of medical phenotypes to support the development of large biomedical knowledge graphs representing clinical and research information
- Apply cutting-edge Machine Learning approaches within a real-world clinical setting in close cooperation with medical experts
- Drive novel applications and take responsibility over large and diverse projects within the HDR UK and the Alan Turing Institute together with researchers from a variety of different backgrounds
- Manipulate, integrate, and analyse diverse data of different dimensions and quality, residing in distributed sources
- Develop research objectives and proposals for own or joint research, with assistance of a mentor if required
- Contribute to writing bids for research funding
- Analyse and interpret data
- Disseminate research findings for publication, research seminars etc
- Supervise students on research related work and provide guidance to PhD students where appropriate to the discipline
- Collect research data; this may be through a variety of research methods, such as scientific experimentation, literature reviews, and research interviews

### Person Specification

- PhD or equivalent experience in Computer Sciences, Mathematics, Statistics, or Bioinformatics with a strong background in text mining and natural language processing. Candidates from related disciplines with a sound and proven Data Science background and excellent quantitative skills are encouraged to apply.
- A relevant degree, at a minimum of a 2:1 classification or equivalent is required.

**Ability to:**

- Demonstrate an understanding of both science and informatics.
- Innovate and develop ideas into grant proposals.
- Learn and keep abreast of latest technological, methodological and software developments.
- Write concise and timely scientific papers and reports.
• Plan and prioritise work effectively to meet deadlines.

• Proven and extensive experience with Natural Language Processing, text mining, semantic technologies, and Data Science with emphasis in modern Artificial Intelligence.

• Good presentation skills and talent for technology and knowledge transfer.

• Proficiency in modern languages (e.g. Python, R, Java, Groovy), strong background in applying human language technologies (Stanford CoreNLP and similar), in-depth knowledge of neural network libraries (TensorFlow, Keras, etc.), familiarity with semantic technologies (e.g. OWL 2, RDF, SPARQL, graph models), database design and handling.

**Closing Date: 25/03/19**

To download the details of this position and submit an electronic application online please click on the **Apply** button, please quote the appropriate Job Ref in all enquiries, alternatively, information can be obtained from **www.hr.bham.ac.uk**

**Valuing excellence; sustaining investment**

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