



HR EXCELLENCE IN RESEARCH

Edge Hill
University

It is important to note that this job description is a guide to the work you will initially be required to undertake. It may be changed from time to time to meet changing circumstances. It does not form part of your contract of employment.

Job description for the post of:

**Postdoctoral Researcher in Text Mining, Big Data and Databases
EHR0058-0618**

Reporting to: Principal Investigator of the Research Project

Accountable to: Head of Department

The Post

Applications are invited for a postdoctoral researcher in Text Mining, Big Data and Databases at the Department of Computer Science, Edge Hill University, Ormskirk, UK.

The successful applicant will work on a 3-year H2020 project focusing on evolving scalable architectures for persistence, analytics and monitoring of large volumes of hybrid data. The objective is to design and develop innovative text mining and big data processing methods to be integrated in data persistence architectures.

Candidates should have a PhD in the broad area of Computer Science with a focus in Text Mining / Big Data / Databases. The candidate must have working knowledge of SQL and NoSQL databases, strong programming skills and experience in software development (Java/C++/Python or similar languages). A good knowledge of big data processing frameworks, e.g. Apache Storm and Hadoop, and a strong publication record in relevant conferences/journals are highly desirable.

Duties and responsibilities

The duties and responsibilities of this post are as follows. The post holder will be expected to carry out the following as and when required.

Specific duties and responsibilities

The post holder will be expected to:

- a) Engage positively in research activity in the broad area of text mining, big data and databases (TM/BD/DB) under the direction of the principal investigator of the research project, Dr Yannis Korkontzelos.
- b) Conduct high quality research in different areas of TM/BD/DB, including distributed text processing, text mining frameworks (e.g. UIMA, GATE), open-linked data (SPARQL), sentiment analysis, named-entity recognition and text classification.

- c) Adapt existing text processing components into big data frameworks.
- d) Extend and improve existing text mining frameworks for big data analysis.
- e) Develop novel, scalable TM methods to process heterogenous data sources.
- f) Effectively collaborate with the project consortium and local team members.
- g) Effectively communicate research findings at internal and, where appropriate, external project meetings, scientific meetings and conferences.
- h) Publish research outputs in leading peer-reviewed journals.
- i) Ensure that her/his skills and technical competence are kept sufficiently up to date to enable her/him to utilise specialist equipment and software used in the research projects.
- j) Engage with relevant academic and professional networks through active membership of societies, associations etc.
- k) Undertake activity related to the development of effective applications for research funding in collaboration with the project team.
- l) Assist in the development of the research skills of postgraduate students; for example, as part of a postgraduate supervisory team, and through the delivery of practical workshops.
- m) Undertake additional duties, as required by the principal investigator or Head of Department.

In addition to the above all Edge Hill University staff are required to:

- a) Adhere to all Edge Hill's policies and procedures, including Equality and Diversity and Health and Safety
- b) Respect confidentiality: all confidential information should be kept in confidence and not released to unauthorised persons
- c) Undertake appropriate training and development as required
- d) Participate in Edge Hill's Performance Review and Development Scheme
- e) Adhere to Edge Hill University's environmental policy and guidelines and undertake tasks in a sustainable manner
- f) Demonstrate excellent Customer Care in dealing with all customers

Salary: Grade 8, points 31-35
£33,518 - £37,706 per annum

Hours: Full time

Candidates should note that they will be shortlisted based on information provided on the application form with regard to the applicant's ability to meet the criteria outlined in the Person Specification form attached.



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CRITERIA

Applicants should be able to provide evidence of their ability to meet the following criteria.

		Essential	Desirable	*Method of assessment (I/A/T/P)
Qualifications				
1	PhD in Computer Science or related area	*		A
Experience and Knowledge				
2	Detailed theoretical and practical understanding and knowledge of text mining / big data / databases	*		A/I/P
3	Strong programming skills and working experience in software development	*		A/I/P
4	Previous experience of conducting high quality research involving text mining / big data / databases	*		A/I/P
5	Experience of working in the Higher Education sector		*	A/I
6	Experience of working in multi-disciplinary research		*	A/I
7	Knowledge of the processes involved in preparing and submitting research proposals		*	A/I
Abilities/Skills				
8	Able to communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience	*		A/I
9	Able to present research findings and participate at internal and external project meetings, scientific meetings and conferences	*		A/I/P
10	Able to write up research outcomes for publication in leading peer-reviewed journals	*		A/I
11	Able to work on own initiative, organising and prioritising work effectively under pressure to meet deadlines	*		A/I
12	A self-starter, able to work independently and without supervision as well as part of a team	*		A/I
13	Ability to operate flexibly and reliably	*		A/I
14	Able to develop and maintain effective working relationships at all levels	*		A/I
15	Able to maintain total confidentiality and to work within ethical guidelines	*		A/I

Other				
16	Willingness to adapt to change	*		I

***Method of Assessment (I-Interview, A-Application, T-Test, P-Presentation)** Please note that applications will be assessed against the Person Specification using these criteria.