

**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:**

**EHR0053-0717**

**Postdoctoral Researcher in Natural Language Processing and Text Mining**

**Fixed Term for up to 18 month initially**

**Reporting to:** Principal Investigator of the Research Project

**Accountable to:** Head of Department

### **The Post**

Applications are invited for a Postdoctoral Researcher in Natural Language Processing and Text Mining at the Department of Computer Science, Edge Hill University, Ormskirk, UK.

The successful applicant will work on a 3-year H2020 project focusing on Open Source Software assessment. The objective is to design and develop innovative text mining methods for processing diverse data sources (e.g. social media posts, forum posts, bug tracker reports and website content) in order to inform decision makers about the quality of Open Source Software projects.

Candidates should have a PhD in the broad area of Computer Science with a focus in Natural Language Processing/Computational Linguistics/Text Mining. The candidate must have strong programming skills and working experience in software development (Java/C++/Python or similar languages, SQL/NoSQL databases etc). A good knowledge of statistical and/or machine learning methods for NLP 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 natural language processing/text mining (NLP/TM) under the direction of the principal investigator of the research project, Dr Yannis Korkontzelos.

- b) Conduct high quality research in different areas of NLP/TM, including opinion mining, topic modelling, document clustering and text classification.
- c) Develop natural language analysis tools to extract quality metrics related to the evaluation of OSS projects by using NLP/TM techniques.
- d) Improve upon existing NLP algorithms using deep learning representation techniques (word/document embedding's).
- e) Develop novel, scalable TM methods to process heterogeneous 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  
£32,958 - £37,075 per annum

**Hours:** Full time, 37 Hours per week

**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.**

**EHR0053-0717**

## **Postdoctoral Researcher in Natural Language Processing and Text Mining**

### **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)
<b>Qualifications</b>				
1	PhD in Computer Science or related area	*		A
<b>Experience and Knowledge</b>				
2	Detailed theoretical and practical understanding and knowledge of natural language processing/text mining	*		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 natural language processing/text mining	*		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
<b>Abilities/Skills</b>				
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

<b>Other</b>				
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 this criteria.