Job Description and Person Specification

Summary

Job title:	Postdoctoral Research Fellow in Data Science and AI
Area:	RIF Research Assistants – Research Investment Fund
Reference:	EHR0140-0125
Grade and Salary:	£39105- £43878 per annum. Grade 8, Points 31 - 35
Contract Type:	Fixed Term from 03/03/2025 until 30/09/2027
Hours:	Full Time (37 hours per week)
Location:	Campus based role. Ormskirk, Lancashire, L39 4QP
Accountable to:	Head of Department
Reporting to:	Research Project Leader

About the Role

You will work on a 3-year Horizon Europe project focusing on the assessment of learning technologies and frameworks for intelligent and ethical AI. The objective is to develop an interconnected data representation, e.g., a semantic Knowledge Graph, that will serve as a foundational framework for connecting AI ethics principles with automatic generated AI models. In addition, we aim to explore methods for detecting bias in data sources, including social media.

You should hold a PhD in the board area of Computer Science with a focus in Data Science / Artificial Intelligence / Text Mining / Natural Language Processing. You must hold experience with machine learning and deep learning frameworks such as Keras, TensorFlow, and scikit-learn. Additionally, proficiency in knowledge graph frameworks and tools, including Neo4j, GraphQL, RDFLib, or similar technologies, is essential. Strong programming skills and experience in software development (Java/C++/Python or similar languages) a good knowledge of collaborative platforms for software development, e.g., gifthub and bitbucket, and a strong publication record in relevant conferences/journals are highly desirable.

Specific duties and responsibilities
The post holder will be expected to:

1. Engage positively in research activity in the broad area of Data Science and AI under the direction of the project lead/principal investigator.

2. Complete high-quality research in the area of Data Science and AI and associated subject areas, leading on knowledge graphs and data bias detection elements of the project and managing the work of others as required.

3. Publish research outputs in leading peer-reviewed journals with an international audience, as lead author where appropriate.

4. Effectively disseminate research findings at internal and external scientific meetings and conferences, making research accessible to lay and expert audiences.

5. Engage with relevant academic and professional networks through active membership of societies, associations to enhance the reputation of the project and the University.

6. Take an active role in the development of effective applications for research funding from both research councils and other external sources in collaboration with the project lead/principal investigator and others, taking a lead role in elements as appropriate.

7. Work with the PI to identify opportunities for enterprise activity, knowledge exchange income and/or consultancy in this and related areas.

8. Contribute to the delivery of teaching at undergraduate and taught postgraduate level.

9. Supervise third year undergraduate dissertation students and taught Masters within the area of research expertise.

10. Assist in the development of the research skills of postgraduate students and early career researchers through workshops promoting highly specialised skills in the broad area of Data Science and AI.

11. Ensure that their skills and technical competence are kept under review and enhanced where required to enable them to utilise specialist equipment and software used in the research projects.

12. Contribute to relevant departmental and research group meetings and help to promote a dynamic research environment for colleagues, students and research users.

13. Abide by the University's research governance framework in all aspects of research and work with the PI to ensure that all members of the team understand the importance of research integrity

14. Undertake additional duties, as required by the project lead/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 learning and development activities 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

g) Proactively consider accessibility and ensure appropriate quality assurance of templates, documents and published outputs using software such as Microsoft Accessibility checker and Blackboard Ally

Eligibility

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

Internal staff wishing to apply for a fixed term role as a secondment opportunity must discuss this with their existing line manager before applying.

Additional information

Contract Type: Academic Research

- Pension Scheme: This post is eligible for the Teachers' Pension Scheme

- Annual Leave: As an academic Researcher your annual leave entitlement is 35 days per annum, pro rata.

It is important to note that this job description is a guide to the work you will 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.

It is expected that the post-holder will work flexibly according to the on-going demands of the job.

Person Specification

Please note that applications will be assessed against the Person Specification using the following criteria, therefore, applicants should provide evidence of their ability to meet all criteria. Where a supporting statement is indicated you will be asked to provide a statement of how you meet this criterion within the application form.

Qualifications

Criteria	Essential or Desirable Criteria	Method of Assessment
PhD in Computer Science or related areas	Essential	Application

Experience and Knowledge

Criteria	Essential or Desirable Criteria	Method of Assessment
Detailed and highly specialised knowledge and understanding of Knowledge Graphs and associated technologies; and Text Mining / Natural Language Processing	Essential	Supporting Statement, Interview
Previous experience of conducting high quality research involving Data Science / Artificial Intelligence	Essential	Supporting Statement, Interview
Experience of publishing high quality academic peer reviewed articles as lead author	Essential	Supporting Statement
Experience of working as a postdoctoral researcher in industry or the Higher Education sector	Essential	Application
Experience of working in multi-disciplinary research	Desirable	Supporting Statement, Interview
Knowledge and experience of the processes involved in preparing and submitting research funding proposals	Desirable	Supporting Statement, Interview
Experience of teaching undergraduates and postgraduates, including supervising research projects	Desirable	Supporting Statement, Interview

Abilities and Skills

Criteria	Essential or Desirable Criteria	Method of Assessment
Able to communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience (both lay and expert)	Essential	Supporting Statement, Interview
Able to present research results at department meetings and conferences	Essential	Interview, Presentation
Able to work on own initiative, organising and prioritising work effectively to meet deadlines	Essential	Supporting Statement, Interview
A self-starter, able to work both independently, without supervision, and as part of a team taking a lead on work packages and managing the work of others	Essential	Supporting Statement, Interview
Ability to operate flexibly and reliably, adapting to change as required	Essential	Supporting Statement, Interview
Able to develop and maintain effective working relationships at all levels	Essential	Supporting Statement, Interview
Able to work within ethical guidelines and maintain high levels of research integrity at all times.	Essential	Supporting Statement, Interview

Candidate Guidance and How to Apply

At Edge Hill University we value the benefits a rich and diverse workforce brings to our community and therefore welcome applications from all sections of society.

For informal enquiries about this vacancy, you may wish to contact: Yannis Korkontzelos, Professor in Computer Science at Yannis.Korkontzelos@edgehill.ac.uk.

When you are ready to start the formal application process, please visit our Current Vacancies website, search for the role you wish to apply for, and select the 'Apply Online' button at the bottom of the job advert. The online application form can be completed in stages and can be revisited at any time. The form automatically saves as you enter your information, and you can move backwards and forwards between individual form sections at any time prior to application submission. Help is available at each stage to guide you through the form. Before final submission, you can preview your application and can then choose to refine or submit the form.

As part of your application, you will be asked to provide details of two referees. Please see our application form for guidance on how to nominate your referees.

Please refer to the advert for the closing date for this vacancy, all applications must be submitted by 11:59pm on this date. Please note that you will receive an automated email from our online recruitment portal to confirm receipt of your application. Please check your spam/junk mail if you do not receive this email.

Following the closing date, we will contact you by email to let you know whether or not you have been shortlisted to participate in the next stage of the selection process. We try our best to inform all applicants within two working weeks following the closing date.

If you are offered the post, the offer will be subject to pre-employment clearance. You will be asked to provide: proof of your right-to-work in the UK; proof of your identity and evidence of your qualifications and professional memberships as referenced as essential or desirable in the person specification for this role. You will also be asked to complete onboarding forms including a pre-employment health questionnaire to support the University make appropriate adjustments to support you in the role. The University will also contact the referees you have nominated. Please note that you may be asked for alternative or additional referees as we seek references that cover your previous three years of employment history. Following successful completion of pre-employment clearances (including an Enhanced Disclosure and Barring Service check, as relevant, please see job advert) a start date will then be arranged with you.