University of Salford
MANCHESTER

Job Description

Role Title:	**Research Fellow**
Dept:	**The School of Science, Engineering and Environment**
Reference:	**GRP76**
Grade:	**7**
Full or Part time:	**Part time**
Hours:	**0.5FTE**
Reports to:	**Principal Investigator**

Overview

Applications are invited for a 6-month, part-time post as a Research Fellow, to support a project focused on the development of an innovative AI-supported Peer Review Dashboard. The dashboard aims to enhance peer review processes by providing advanced tools for managing, tracking, and optimising review workflows, fostering transparency, and improving decision-making. The Research Fellow will be responsible for contributing to the design and implementation of AI-driven features that support the automation of review assignments and decision-making processes, as well as the development of the AI-supported Peer Review Dashboard. This will include working within a secure environment to ensure the integrity and confidentiality of sensitive data, while maintaining compliance with ethical and data protection standards throughout the project's lifecycle.

This is an ideal opportunity for a developing post-doctoral researcher or a professional with equivalent experience to make a valuable contribution to impactful research while further developing high-level skills in AI and software engineering. The role will involve managing the day-to-day operations of the project, including both research and administrative tasks. The post-holder will conduct a rapid review of the literature, lead participant recruitment, and oversee data collection. The successful candidate will also collaborate closely with the wider project team, contributing to data analysis using appropriate methods, and playing a key role in the dissemination of research findings to both academic and public audiences. This position offers the opportunity to enhance both technical and project management capabilities in a cutting-edge research environment.

The successful candidate will contribute to both the technical development and research activities of the project, working collaboratively with academic, technical, and stakeholder partners to deliver a high-quality, secure, and user-focused solution.

The School of Science, Engineering and Environment (SEE) is an inter-disciplinary School recently formed from the unification of three long-standing Schools at Salford. SEE comprises world-leading research and teaching across the spectrum from Acoustics, Built Environment, Engineering, Computer Science, Biology, Physics, Biomed, Wildlife, Geography and Environmental Management.

Our Research and Innovation Centres work together to collaborate around the world's greatest challenges including Net Zero, Climate Change and Resilience, Healthy Living, and Industry. Our focus is on translating our pioneering research into real-world impact for people and industry and our research is recognised as world leading.

With the largest group of research centres at the University, plus world-class test facilities such as Energy House 2.0, North of England Robotics Innovation Centre (NERIC), the Informatics Research Centre (IRC) and the Acoustics Research Centre, we are at the forefront of pioneering discovery, nurturing the next generation of industry leaders.

Role Purpose

To develop and conduct high quality collaborative research projects, leading to high quality impact and publication in peer-reviewed journals and other forms of dissemination.

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Principal Duties & Responsibilities

- To undertake research projects related to AI and software engineering.

- To help conceive and then to plan and deliver experimental and/ or exploratory research projects related to the aims of the research area.

- To work within the project timescales and agreed work plans.

- To collect, process and interpret data relevant to the aims of the research project. To ensure that research is conducted to appropriate ethical and governance standards as defined by the University.

- To liaise with other research colleagues, academic staff employed in the project, and research team members in a manner such that there is collective support for all aspects of the project and partnership working.

- To report on research issues to the principal investigator/senior academic on the project.

- Where necessary, to present the research work of the University to other University staff/students and external partners and collaborators.

- Design and prototype of a secure, interactive dashboard for AI-human review comparison.

- Develop and maintain the frontend interface (React.js) to ensure usability and responsiveness.

- Work with the project lead to configure data visualisation tools (e.g. AWS QuickSight, or alternatives such as Grafana/D3.js) to present AI vs human scoring outcomes, reviewer workload, and ranking simulations.

- Collaborate on backend and data integration (structured data storage, APIs where needed).

- Conduct stakeholder interviews and help translate requirements into system specifications.

- Support testing, iteration, and refinement of dashboard features based on user feedback.

- Document methodologies, system design, and technical decisions for internal and academic dissemination.

- Contribute to publications and presentations related to the project.

- Disseminate research outcomes in collaboration with the project researchers at relevant conferences, exhibitions, industry events (including seminars, workshops, etc.).

- Undertake visits to project partners, both across the UK and beyond.

- Hold regular meetings with the project team at different levels, and being pro-active with decisions and self-direction.

- Carry out high quality research in line with the requirements of the current funded projects.

- Liaise with other stakeholders, both internal and at project partners as required to achieve the project deliverables.

- Contribute to the general academic activities of the university, such as promoting good practice to other researchers, as well as complementing appropriate teaching and learning activities.

- Develop and maintain skills in relevant research methodologies.

- Meet project deadlines with deliverables in line with the overarching plan of the project.

- Maintain high standards of academic and commercial confidentiality.

- Perform any other duties appropriate to the grade as may be required by Project Principal Investigator.

- To use due diligence in the management, protection and exploitation of intellectual property owned by the University and/or external partners.

- Perform any other duties appropriate to the grade as may be required by the appropriate senior manager.

- Bring to the attention of managers any matters relating to the health and safety of staff, students and visitors.

- Engage with the University's commitment to deliver value for money services that optimise the use of resources by maintaining a cost-conscious approach when undertaking all duties and aspects of the role.

- Promote equality and diversity for students and staff and sustain an inclusive and supportive study and work environment in accordance with University policy and UK legislation.

- This role detail 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.

Person Specification

The successful candidate should demonstrate the following, which are 'Essential' (E) or 'Desirable' (D), and will be assessed by Application Form (A), Interview (I), Presentation (P), or Test (T), as indicated.

Qualifications

1. A PhD (or PhD candidate) in Software Engineering or a closely related field (E) (A)

2. Degree in Software Engineering or a closely (2:1 or higher). (E) (A)

Knowledge

3. Experience with cloud platforms (AWS preferred) (E) (A) (I) (P)

4. Expertise in data analysis techniques, with the ability to leverage AI and machine learning models for extracting insights and improving review workflows (E) (A) (I) (P)

5. Experience working in secure or restricted data environments (E) (A) (I) (P)

6. Familiarity with research evaluation and peer review processes (E) (A) (I)

7. Experience managing complex projects, including balancing technical development with administrative tasks and ensuring timely delivery (E) (A) (I)

Background and Experience

8. Strong programming skills in JavaScript/TypeScript and React.js (E) (A) (I)

9. Experience using AWS QuickSight, or alternatives such as Grafana/D3.js. (E) (A) (I)

10. Experience developing software applications and APIs. (E) (A) (I) (P)

11. Knowledge of AI/ML pipelines and integrating AI-generated outputs into applications. (E) (A) (I) (P)

12. Experience with software engineering practices, including system design, development, and deployment of AI-supported applications (E) (A) (I) (P)

Skills and Competencies

13. Excellent communication, interpersonal and team-working skills (E) (A) (I)

14. Ability or potential to undertake research and potential to generate external funding (E) (A) (I)

15. A firm commitment to personal and professional development (E) (A) (I)

16. Ability to present information concisely in written and verbal formats; write conference abstracts, reports and articles for publication (E) (A) (I)

17. Good time management and organisational skills: self-directed and creative; organise and prioritise own workload to meet deadlines (E) (A) (I)

18. Ability to conduct qualitative interviews and data analysis (E) (A) (I)