

Job Description

Role Title:	Research Fellow (Technical Delivery)
Dept:	Faculty of Science, Engineering and Environment
Reference:	GRP76
Grade:	7
Full or Part time:	Full Time (12 months fixed)
Hours:	1 FTE
Reports to:	Project Lead for Faculty of SEE

Overview

The University of Salford is looking for a capable, hands-on developer to build the AI systems at the heart of FOUR4ALL, a Horizon Europe research project examining working-time reduction across Europe. It's a role for someone who enjoys taking real, applied AI systems from idea to something that works reliably in the real world – and who wants to do it as part of a multidisciplinary research team.

There are two systems at the centre of the job. The first is an AI-assisted tool for conducting research interviews: a carefully controlled conversational agent that gathers evidence from people across several languages, which the project will formally evaluate against traditional human-led interviews – a genuinely novel piece of applied research. The second is a public evidence assistant that lets policymakers, practitioners, and the public explore the project's findings through natural conversation, grounded in the project's own research. As things develop, there will also be scope to get involved in the AI- and NLP-assisted analysis of the evidence the project gathers – a chance to shape part of your own work as opportunities arise.

These are substantial, interesting systems, but the brief is a well-defined one: the scope is deliberately bounded, the work builds on established approaches and a modern, EU-hosted stack, and you'll have the support of the wider team throughout. We're looking for someone who understands the design and development of LLM-based systems – who can choose the right model and approach for a job, build a solid solution around it, and test whether it actually works.

Your focus will be primarily technical delivery. The project's research outputs are led by social scientists, so your job is to turn their needs into working, well-tested tools – and a significant part of that is working closely with a wide range of people, technical and non-technical alike: fellow researchers, international project partners, and the people who will ultimately use what you build. Being able to explain technical choices clearly, and to listen well, matters as much here as the code.

The project works within strict ethical and regulatory frameworks, including the EU AI Act and GDPR, and you'll help shape how we meet them in practice. You'll also help document the work and share it as part of the project's outputs.

We welcome strong applicants at all career stages, including recent Master's graduates with a demonstrable, relevant skill set.

Role Purpose

To build and evaluate the AI systems at the core of FOUR4ALL – an AI-assisted research-interview tool and a public evidence assistant – as part of a multidisciplinary research team and within the project's ethical and regulatory standards

Principal Duties & Responsibilities

Technical design and delivery

- Design, build, and evaluate the project's two core AI systems: a controlled conversational agent for conducting research interviews, and a retrieval-augmented assistant that makes the project's evidence accessible to the public.
- Build these as reliable, well-tested systems that behave predictably and safely, and judge their quality against clear, evidence-based criteria.
- Select and integrate appropriate language models and related components for each task, balancing performance, cost, language coverage, and the project's constraints.
- Design the workflows and interfaces that bring the systems to life, including clean, accessible front-ends for participants and the public.
- Build shared technical foundations the two systems can draw on, and structure the work so it can adapt as requirements and evidence evolve.
- Support the systems' operation across the project's working languages.
- Contribute, as the project develops and where capacity allows, to the AI- and NLP-assisted analysis of the evidence the project gathers.

Deployment, operation and handover

- Deploy both systems to EU-hosted or institutional infrastructure and keep them running reliably through live fieldwork and public use.
- Set up monitoring and alerting so that availability, errors, and usage or cost are tracked and issues surfaced early.
- Maintain and support the systems in operation, and document them so they can be run and maintained beyond the immediate delivery period.

Analysis support and dissemination

- Contribute, where useful, to the NLP and AI-driven analysis of interview data in support of the research team.
- Contribute to technical documentation and to the project's dissemination outputs, including write-ups of the systems' design and evaluation.

Collaboration and stakeholder engagement

- Work as part of a multidisciplinary research team, turning research needs into working, tested systems.
- Engage a wide range of technical and non-technical stakeholders – researchers, international project partners, ethics and data-protection colleagues, and end users – to understand needs, explain options, and share progress.
- Communicate technical ideas, trade-offs, and constraints clearly to non-specialists, and raise concerns early where requirements are unclear or hard to meet.

- Contribute to requirements definition, technical scoping, and design decisions, and document them for the team.

Governance, compliance and quality

- Build systems that work within the project's ethical and regulatory requirements, including the EU AI Act and GDPR, applying good data-protection and responsible-AI practice.
- Contribute to how the project meets these requirements in practice, and keep the work well-documented, reproducible, and maintainable.
- Support the secure and privacy-preserving handling of research and public data.

Generic Duties

- Perform any other duties appropriate to the grade as may be required by the Project Lead
- Comply with the personal health and safety responsibilities specified in the University Health and Safety policy.
- To engage with the University's commitment to put our students first and deliver services which are customer orientated, represent value for money and contribute to the financial and environmental sustainability of the University when undertaking all duties and aspects of the role.
- Advance equality, support our work towards eliminating unlawful discrimination, foster an inclusive study and work environment for students, staff and visitors in accordance with our public sector equality duties and university policy.

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

- MSc in Computer Science, Data Science, Artificial Intelligence, Software Engineering, or a closely related field; **or** a BSc in a related field with strong, demonstrable technical experience. **(E) (A)**
- Evidence of ongoing technical development, such as a portfolio, relevant projects, or open-source contributions. **(D) (A) (I)**

Knowledge

- Strong understanding of how to build applications around large language models (LLMs) for specific purposes – embedding, retrieval, reranking, classification, and generation. **(E) (A) (I) (P)**
- Understanding of a range of NLP techniques, from classical approaches (e.g. text preprocessing, embeddings, classification, topic modelling) through to modern transformer- and LLM-based methods. **(E) (A) (I) (P)**
- Understanding of retrieval-augmented generation (RAG) architectures and their components. **(D) (A) (I) (P)**
- Understanding of how to select and evaluate LLMs for a given task, balancing performance, cost, language coverage, and constraints. **(D) (A) (I) (P)**
- Understanding of bounded and agentic system design, workflow orchestration, and guardrails. **(D) (A) (I) (P)**
- Awareness of evaluation approaches for LLM and NLP systems (e.g. retrieval quality, answer grounding, output quality). **(D) (A) (I) (P)**
- Understanding of data-protection and responsible-AI principles, and awareness of the relevant regulatory landscape (e.g. GDPR, EU AI Act). **(D) (A) (I) (P)**
- Awareness of the considerations involved in working with LLMs across multiple languages. **(D) (A) (I) (P)**

Background and Experience

- Demonstrable experience building LLM-powered applications, ideally including RAG systems. **(E) (A) (I)**
- Experience working with more than one language model or provider, and choosing

between them **(D) (A) (I)**

- Frontend development experience, building clean, accessible interfaces. **(D) (A) (I)**
- Experience deploying and operating applications in production (e.g. hosting, containerisation, monitoring). **(D) (A) (I)**
- Familiarity with LLM or agent orchestration frameworks such as LangChain or LangGraph, or equivalent. **(D) (A) (I)**
- Experience in a research, academic, or R&D setting. **(D) (A)**

Skills and Competencies

- Strong programming ability, particularly in Python. **(E) (A)**
- Sound system- and solution-design judgement – able to architect a system around a language model, not just call an API. **(E) (A) (I) (P)**
- Able to build complete, working systems and take them to production reliably. **(E) (A) (I) (P)**
- Excellent communication skills, comfortable working with both technical and non-technical colleagues. **(E) (A) (I) (P)**
- Rigour in testing and evaluating your work, with clean, documented, reproducible engineering habits. **(D) (I)**
- Effective and critical use of AI-assisted development tools (e.g. Claude, Copilot, Codex), while remaining fully responsible for reviewing and understanding the code you ship. **(D) (I)**
- Ability to work independently, manage your own delivery, and adapt as requirements and evidence evolve. **(D) (A) (I)**