University of Salford MANCHESTER

Research & Knowledge Exchange
School of Science, Engineering & Environment

Job Opportunity

Data Scientist / KTP Associate position

Whichrate Consulting Ltd – Staffordshire, ST18

Overview, Job Description and Person Specification

Knowledge Transfer Partnership Associate with Whichrate Consulting Ltd

Overview

In collaboration with Whichrate Consulting Ltd, The University of Salford has been awarded a 36-month Knowledge Transfer Partnership (KTP). This position will be working across departmental teams at Whichrate's Staffordshire premises, however the Associate will be required to travel to the University of Salford as required for meetings on a regular basis.

The KTP project will be instrumental in transferring and embedding advanced machine learning (ML) and computer vision (CV) expertise into Whichrate, whilst being committed to building a sustainable, in-house AI capability that supports long-term innovation.

The KTP will also enable the business to scale operations and establish a leadership position in intelligent claims processing, supporting the UK's ambition to lead in professional services AI.

This is an opportunity to drive a significant technological development, supported by comprehensive training and career development for the right candidate. This will be complimented by the Academic team at the University of Salford led by Dr Ali Alameer, Lecturer in AI and Dr Taha Mansouri Lecturer in AI.

Job Purpose

This KTP project is required to develop bespoke AI-driven tools to automate motor insurance claim analysis, enhancing efficiency and accuracy. The KTP will embed advanced machine learning capabilities, reduce case turnaround times, and unlock scalable growth, transforming data handling in the UK's high-volume, fraud-prone motor insurance sector.

Whichrate's strategic vision is to become the UK's leading provider of intelligent, data-driven solutions for the motor insurance and legal sectors. The company aims to achieve this by embedding advanced AI capabilities into its operations, enabling scalable, efficient, and accurate handling of motor insurance claims.

Beyond the project's lifetime, the knowledge will be retained through the continued employment of the Associate (where possible), the creation of reusable AI infrastructure, and the upskilling of staff. This will allow Whichrate to extend the solution to other document types and use cases, such as fraud detection or litigation risk analysis

Responsibilities

The Associate will take on the challenging task of project managing this 36-month programme of research, development and implementation. This is an opportunity for the right candidate to become a key player within the business with an awareness of strategic and operational decision-making processes.

The key objectives for this KTP Project are the following:

- To gain a deep understanding of Whichrate's business goals, systems, and manual court pack analysis processes
- Lead the requirements gathering and specification for an AI-driven claims analysis tool
- Design and implement advanced machine learning and natural language processing models
- Develop and deploy a functional Minimum Viable Product (MVP) for automated court pack analysis
- Drive user training, change management, and knowledge transfer across the business
- Support the commercialisation and continuous improvement of the AI solution

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.

We are seeking a candidate committed to continuing Personal/Professional Development and able to engage with appropriate development activities as required for the role. For example, KTP project management training, Data Protection training and any other identified appropriate essential learning opportunities. As part of the role there will be regular performance development and monitoring to support and enable the associate to develop essential skills and knowledge.

Mandatory Technical Demonstration

Candidates invited to interview must present a functional Large Language Model (LLM) tool. The task is to develop a system that processes unstructured text from a PDF and extracts specific information, e.g., dates, names etc into a structured JSON format. This should show your ability to build a custom tool rather than a simple API wrapper. Candidates are encouraged to develop:

- A frontend application using React, Next.js, or a similar framework for uploading PDFs and displaying results
- A backend API using Node.js, Python (Flask/FastAPI), or similar technologies to handle document processing and LLM integration

Submission and Presentation: Provide a link to your GitHub repository, a web app, or a video demo during the interview. You will also be expected to perform a live walkthrough of the working model.

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Person Specification

Qualifications

1. 2:1 BSc/BEng in Computer Science, Data Science, or a related discipline (E)

2. A postgraduate qualification (MSc or PhD) in AI or Data Science (D)

Background, Experience & Knowledge

3. Proven ability to build RAG pipelines for specific domains, fine-tune LLMs for enhanced performance, and integrate vector search to improve the relevance of contextual responses (E)

4. Deep understanding of Transformer architectures, including self-attention, tokenization, and the underlying mechanics of Large Language Models (E)

5. Model Context Protocol (MCP) for System Integration: Familiar with MCP and its use in combining visual and textual workflows into unified AI tools (D)

6. Expertise in training models above to operate effectively on local, resource-constrained devices without reliance on cloud infrastructure (E)

7. Comfortable working with diverse, often unstructured, and imperfect data (e.g., industrial imagery, open-text field reports). Capable of cleaning, aligning, and preparing such data for machine learning pipelines (D)

8. Software Engineering & Deployment: Proficient in state of the art libraries (E)

9. Experience building interactive dashboards or tooling in React, integrating with RESTful inference APIs, and handling realtime data updates (D)

Skills & Competencies

10. Exceptional ability to communicate complex technical information and concepts clearly and concisely to non-technical stakeholders and collaborate across departments and levels of seniority (E)

11. Be highly organised, adaptable, and capable of managing competing priorities in a fast-paced SME environment (E)

12. Excellent organisational skills, with an ability to prioritise issues and multitask according to business need (E)