

THE UNIVERSITY OF MANCHESTER
PARTICULARS OF APPOINTMENT
FACULTY OF SCIENCE & ENGINEERING
SCHOOL OF ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE
MACHINE LEARNING / AI ENGINEER (KTP ASSOCIATE)
VACANCY REF: SAE-028736

Salary: Grade 7 £46,735 to £57,422 per annum, depending on relevant experience

Hours: Full Time (1FTE)

Duration: Fixed Term For 24 Months

Location: Fusion 21 LTD, Unit 2 Puma Court, Kings Business Park, Knowsley, Merseyside, L34 1PJ

Enquiries about the vacancy, shortlisting and interviews:

Name: Dr Tingting Mu

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Job Background

This is a project in partnership between The University of Manchester and Fusion21, co-financed by a Knowledge Transfer Partnership (KTP) grant from Innovate UK. The vision is via the multi-disciplined team to establish a digital infrastructure that will enable Fusion21 to become a data and client-driven business, powered by a unique and bespoke AI-enabled platform for improving business efficiency and employee interactions, differentiating Fusion21 from its competitors.

Overview of Fusion21

Fusion21 is a national social enterprise specialising in efficient and impactful public sector procurement and social value services. The procurement with purpose provider was created originally by and for the housing sector in 2002 but has since diversified into other sectors including local authority, education, NHS, and blue light.

To date, the organisation has saved its members £380 million through the procurement process, created over 13,550 employment outcomes, and generated more than £200 million in social impact. The organisation has a 'We invest in people' gold accreditation from Investors in People.

Overview of Department of Computer Science

University of Manchester is ranked 34th by QS World University Ranking 2025. The department has a long and distinguished track record in researching core Computer Science and across

interfaces to adjacent disciplines. Founded upon the pioneering work of Williams, Kilburn and Turing, the Department was the first academic Department of Computer Science in the UK and one of the first to run an undergraduate programme. The research strength of the department is reflected in consistently strong returns in UK research assessment exercises (5* in RAE 2000, 2nd in Research Power in RAE 2008, 4th in overall GPA in REF 2014 and ranked equal 1st for research environment).

The department's Artificial Intelligence and Data Science Research Themes sit at the forefront of both fundamental research and practical innovation, with a creative multidisciplinary culture, seeking solutions to revolutionise AI and to challenging real-world problems.

The department is supported by Centre for AI Fundamentals, Machine Learning and Robotics Group, Institute for Data Science & Artificial Intelligence, ELLIS (European Laboratory for Learning and Intelligent Systems) Unit Manchester, and is a partner of the Alan Turing Institute. The successful candidate will be encouraged to participate in activities within these organizations.

In addition, the department is supported by academic expertise in user engagement and from Alliance Manchester Business School, offering specific knowledge on social sustainability in supply chains, social innovation, vulnerable communities, and user-centric service design and digital responsibility.

Job Description

The associate will work with a passionate team of strong industrial and academic expertise in a creative and open environment, encouraging innovation and social responsibility.

The job is underpinned by a work plan that details a specific work stream that the associate is responsible for, containing a range of outputs to deliver over the course of this project.

A significant part of the job is of a collaborative nature, working closely with another KTP associate on MLOps Software Engineering.

There are key milestones common to both associates and points where the work of both Associates comes together to deliver value to the company partner.

The key purpose of this role is to design and implement several automating AI solutions, and support their deployment, for key target areas within Fusion21 business operations, and to develop an AI future roadmap and data plan to further advance the long-term business operations, under a robust governance framework to ensure effective ongoing risk management.

Knowledge Transfer Partnerships (KTP) is Europe's leading programme helping businesses to improve their competitiveness and productivity through the better use of knowledge, technology and skills that reside within the UK knowledge base.

Throughout the KTP you will:

- Receive a competitive salary
- Gain excellent experience of managing a high-profile project
- Receive formal management training
- Have access to a £4,000 professional development and training budget

- Receive mentoring and support from academic staff and industry professionals

Further information on KTP, including case studies, can be found at: [Knowledge Exchange partnerships and funding](#) | [Business engagement and knowledge exchange](#) | [The University of Manchester or Home - Knowledge Transfer Partnerships](#)

Key Responsibilities and Duties:

- Design and implement automating AI solutions, driven by machine learning and natural language processing (NLP) techniques, to enhance data management, documentation automation, pattern recognition and service optimisation, and support their deployment
- Assess outcomes of research and project delivery, conduct up-to-date literature review, obtain insights on results, and make accordingly short-term and long-term development and strategic plan
- Responsible for the development and maintenance of technical and user documentation
- Present research findings by reports and publications
- Attend, contribute to, and present information in training sessions, academic and business meetings, e.g., regular steering group meetings, LMC meetings and KTP training (including 2 short residential courses)
- Engage with Fusion21 colleagues and external partners to exchange knowledge and build collaborative relationships and support relevant members in developing knowledge understanding and research skills
- Manage research resources and budgets to ensure efficient use

PERSON SPECIFICATION

Essential:

- A PhD or Master's degree (e.g. first-class, significant technical contribution in particularly relevant projects) or equivalent, with relevant work/project experience in Machine Learning, AI, Data Science, Applied Statistics, Computer Science
- Proficiency in machine learning and deep learning, AI modelling and simulation with an emphasis on NLP, database development and data integration, and data mining tools
- Experience of data analytics, algorithm development and implementation, research methodologies and engineering skills
- Strong analytical, problem-solving, project management skills, and the ability to work independently and as part of a team
- Excellent communication and interpersonal skills, with the ability to present complex concepts to diverse audiences and a range of media
- Effective time management and the ability to meet deadlines in a fast-paced environment

Desirable:

- Publication record in academic journals or high-profile AI conferences

- Commercial awareness and ability to apply academic knowledge and research to business solutions
- Experience in project administration, resource management, and budgeting
- Understanding of equal opportunity considerations in research