

School of Computer Science & Business School
Sysdoc

AI and Business Transformation (KTP Associate)

Job Ref: REQ250965

Period: 24 months

Salary: £40,000 - £42,000 per annum including London weighting (Starting salary to be confirmed on offer of appointment), plus £2000 per annum training budget

Key words: machine learning, deep learning, AI, artificial intelligence, data analytics, computer science, software, business analytics, consultancy, business transformations.

Project Description:

This is a full-time, fixed term 24-month Knowledge Transfer Partnership (KTP) between Loughborough University and Sysdoc Ltd, funded by UKRI Innovate UK.

This is an exciting opportunity for a forward-thinking and ambitious specialist in Artificial Intelligence with interest in business applications to join Sysdoc, a company that specialises in global consultancy, business transformation, learning and innovative technology.

This KTP will develop an AI-powered transformation engine that predicts and mitigates risks in complex organisational change initiatives. This solution leverages proprietary transformation data to enhance decision-making, reduce failure rates, and improve Return On Investment (ROI). This innovation will revolutionise how businesses plan and execute change, ensuring sustainable, successful transformations.

The KTP Associate will form an integral part of Sysdoc, working closely with their supervisory team and company partners. The KTP Associate will be based primarily at the Sysdoc London office in Work.Life, 9 Noel Street London, W1F 8GQ and will also spend some time at Loughborough University with the academic teams in the Department of Computer Science and the Business School.

As a KTP Associate, the successful applicant will have access to a wide range of commercial, R&D and management training programmes, as well as technical training resources and facilities at Loughborough University. The Associate will be supervised by an academic team, led by Prof Georgina Cosma and Academic Supervisor Prof Crispin Coombs, who are experts in their academic fields.

Qualifications

Applicants should hold an undergraduate degree in Computer Science, Software Engineering or closely aligned disciplines. A postgraduate degree in: Business Management is desirable for understanding organisational dynamics; or in Artificial Intelligence with demonstrable strong desire to learn business applications and transformation methodologies.

The ideal candidate will be a proactive self-starter with strong problem-solving, organisational, and interpersonal skills. They must be adaptable, and able to balance academic rigour with business needs. A commercial mindset is highly desirable. Excellent communication and presentation skills are essential.

The Associate should have good skills and experience in the following areas:

- Strong proficiency in a variety of programming languages, with the ability to adapt to different paradigms and technologies as needed (e.g., Python, Java, JavaScript, HTML/CSS)
- Knowledge of advanced computing topics e.g. AI, ML, statistics, combinatorial optimisation, software engineering, etc.
- Proven experience conducting data analytics and AI projects.
- Evidence of having designed and conducted experiments to test hypotheses and validate AI models, contributing to rapid prototyping and iterative development.
- Understanding or willingness to learn business applications and about the dynamics of organisational change.

Benefits

As a KTP Associate, the post will offer the following benefits:

- A personal development budget of £4,000 (exclusive of salary).
- Management training and mentoring by an Innovate UK KTP Adviser.
- An interesting and challenging role, with exposure to a variety of stakeholders.
- Full access to university resources to complete the project.
- World-leading Academic and Company project supervision, with project support by a dedicated, sector leading KTP Office.

Introduction to Sysdoc Ltd

Sysdoc is a global consultancy specialising in business transformation, change enablement, and innovative technology solutions. Founded in New Zealand and established in the UK for over 30 years, they work with leading organisations across industries such as pharmaceuticals, defence, automotive, utilities and technology. Our focus is on helping clients deliver complex transformations successfully – embedding new ways of working, de-risking programmes, and building sustainable capability.

Their approach combines deep consulting expertise with proprietary tools and methodologies. These include **Serendata**, a SaaS change management platform providing real-time insight into transformation risks and adoption metrics. Solutions support clients in achieving measurable results – higher adoption rates, reduced programme failure risk, and stronger ROI on their transformation investments.

Headquartered in London with a strong presence across the UK and New Zealand, Sysdoc is trusted by global enterprise clients to deliver transformation without the sleepless nights. Their teams bring a distinctive blend of empathy, innovation and rigour – partnering with clients to achieve lasting impact at scale.

Loughborough University/ Department Summary

Loughborough University is ranked in the Top 10 in the most recent Complete University Guide Guardian League Table and the Times Good University Guide. Its position is confirmed through its outstanding research & innovation in science and engineering, and its world-class research facilities. It has been awarded a record of seven Queen's Anniversary prizes for its research impact to society and UK industry.

Department of Computer Science was founded in 1974 and is one of the first university computing departments established in the United Kingdom. It is a part of the Loughborough University School of Science, and the department has an excellent research record in AI and robotics. In addition to our strong track record in fundamental research, a particular focus of our research is applied research to support industry and create significant economic and social impact. In joining the highly ranked and fast-developing Department of Computer Science, the successful candidate will have access to a wide range of high-spec computing facilities, workstations and servers.

Loughborough Business School has an underpinning belief, that to face current challenges, we need to rethink the way we approach business, to better balance societal, environmental, and economic priorities. This leads to

a purpose, which is about 'raising the game' of business, which we'll achieve through challenging practice, policy, and performance. Our mission builds on our strengths as 'we turn theory into practice by bringing together deep partnerships with purposeful organisations, career accelerating education and world-leading research'. Loughborough Business School has engaged with and supported Small and Medium Enterprises (SMEs) and start-up businesses since 2014. The school achieved the Small Business Charter award in 2014 (extended in 2024 for five years), recognising commitment to provide SMEs with research-informed growth and entrepreneurship support to enhance their productivity and contribution to the broader economy. The School conducts research across the full range of sub-disciplinary areas within business and economics, with research strengths in Information Management, Management Science and Operations, Marketing, Work and Organisation, Accounting and Finance, International Business, Strategy and Entrepreneurship, and Economics.

Job Description and Person Specification

Job Grade: Other

Job Purpose

The KTP Associate will:

- Work with stakeholders, including Sysdoc senior leaders, technical multi-disciplinary scientists, commercial, sales, marketing teams, clients and academic experts, developing networks across the business and understanding of project needs and deliverables.
- Determine technical scope, objectives, specifications, and opportunities for technology advancement.
- Apply a business benefit realisation management (BRM) approach to work with the company's consulting and product teams to understand the detailed requirements for the AI-powered Business Transformation system. BRM actively considers both the potential requirements for organisational change and technical change.
- Develop AI-powered Transformation Engine using advanced ML/DL techniques (LIME/SHAP, clustering, NLP sentiment analysis, time-series forecasting).
- Overcome technical constraints: optimise feature selection, enhance cluster accuracy, implement explainability for non-technical users, integrate diverse data sources (organisational metrics, people indicators, business process data).
- Conduct experiments, testing, and evaluation for the developed system for commercial trials and measure its impact.
- Document work regularly, ensuring knowledge and outcomes are transferred to other team members, embedding, recording, creating a repository throughout the project.
- Write reports and presentations, sharing these as project updates at supervision meetings, LMCs, advisory panel meetings, and other necessary forms of engagement and dissemination.

Job Duties

- Carry out the KTP project tasks and deliver the outcomes as outlined in the project workplan.
- Manage the project and disseminate key deliverables/findings to the project team and key stakeholders, to facilitate commercialisation of the product.
- Undertake KTP management training, as well as personal development training and courses as deemed necessary.
- Prepare research papers for publication in journals/conferences, in line with the expected scholarly activities of the University Research Staff, and in accordance with the commercial sensitivity of collaborating companies.
- Assist with the capture of intellectual property.
- Travel to Company business partners within the UK and possibly overseas, when necessary.
- To undertake such other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.

Points to Note

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed.

Applicants must have completed their latest qualification (degree, masters, PhD), no more than five years before the closing date.

Eligibility and Security Requirements

Due to the nature of work the business conducts and the protection of certain assets, you must be willing to undergo a BPSS (Baseline Personnel Security Standard) clearance without any caveats to that clearance. Loughborough University will support the application for Security Clearance if you don't currently already have this in place. (<https://www.gov.uk/government/publications/united-kingdom-security-vetting-clearance-levels/national-security-vetting-clearance-levels#baseline-personnel-security-standard-bpss>)

Please note: Skilled Worker visa sponsorship is not available for this position.

Special Conditions

All staff have a statutory responsibility to take reasonable care of themselves, others and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University's Equality & Diversity policy and procedures at all times. Duties must be carried out in accordance with relevant Equality & Diversity legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Respecting Diversity and, where appropriate, Recruitment and Selection.

We actively encourage applicants from women, disabled and Black, Asian and Minority Ethnic candidates, who can bring their experiences and voices to the partnership.

Organisational Responsibility

Reports to the KTP Lead Academic: Prof Georgina Cosma

Person Specification

Your application will be reviewed against the essential and desirable criteria listed below. Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:

- 1 – Application
- 2 – Presentation
- 3 – Interview
- 4 – In-Person Test

Essential Criteria

Area	Criteria	Stage
Experience	Working experience in data analysis, machine learning algorithms, techniques, and frameworks (TensorFlow, PyTorch, etc.)	1,2,3
	Algorithm development and software engineering	1,2,3,4
Skills	Solid programming skills including designing, developing and evaluating machine learning pipelines using Python	1,2,3,4
	Design, develop, code, test, debug and validate software system	1,2,3,4
	Analyse and enhance efficiency, stability and scalability of system resources	1,3
	Integrate and validate new product designs	1,3
	Authoring original work, technical reports and presentations	1,3
	Good project management and team-work skills	1,3
	Strong real-world problem-solving skills	1,3
	Good interpersonal skills	1,2,3
Qualifications	BSc and/or PhD (or near completion) in Computer Science, Software Engineering or closely allied disciplines. A postgraduate degree in: Business Management is desirable for understanding organisational dynamics; or in Artificial Intelligence with demonstrable strong desire to learn business applications and transformation methodologies	1,3
Eligibility	Applicants must be currently resident in the UK and have been resident for a minimum of three continuous years; please be prepared to provide evidence.	1,3
	Applicants must be successfully granted BPSS security clearance upon commencement of the position.	1,3

Desirable Criteria

Area	Criteria	Stage
Knowledge	Understanding of data structures, algorithms, and software design principles	1,3
	Combinatorial optimisation	1,3
Experience	Experience in deep learning and deep learning platforms (e.g. PyTorch, TensorFlow)	1,3

	Agile project management	1,3
	Experience of working in research and development projects.	1,3
	Experience of working in a business transformation context	1,3
	Design and documentation of software architecture and application workflow	1,3
	Experience in building professional networks	1,3
	Willingness to learn about business applications, transformation and the dynamics of organisational change	
Skills and abilities	Ability to take part in collaborative activities and work with technical staff in other subject domains in a commercial environment.	1,3
	Experience of undertaking qualitative data collection (e.g. interviews) and analysis	1,3
	Experience with cloud platforms (AWS, Azure)	1, 3
Qualifications	Licenced to drive in the UK	1,3

Conditions of Service

The position is FULL TIME and FIXED TERM for 24 months. Salary will be between £40,000 - £42,000 per annum at a starting salary to be confirmed on offer of appointment. The successful applicant will also receive a £2,000 per annum training budget.

The appointment will be subject to the University's normal Terms and Conditions of Employment for Academic and Related staff/Operational and Administrative staff, details of which can be found [here](#).

We strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze Athena SWAN award which recognises the importance of support for women at all stages of their academic career. For further information on Athena SWAN see <http://www.lboro.ac.uk/services/hr/athena-swan/>.