



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Machine Learning Engineer - KTP Associate, Research & Innovation Service



Salary: (£40,000- £50,000 p.a. depending on experience) + A Personal Development budget of £4,000

Reference: CSRIS1307

Closing date: 06 December 2023

Fixed-term for 24 months because the role is funded by external grant income.

Location: Katchr - Company Premises

Overview of the Role

The University of Leeds has an exciting opportunity for you to 'fast-track' your career in industry by leading a high-profile, strategically important project from start to completion. Through a Knowledge Transfer Partnership (KTP), you will work with Katchr, a sector leading company to develop, deploy and embed a bespoke business Management Information solution. The solution will be driven by complex artificial intelligence (AI) and machine learning algorithms to enable tailored and customer-centric financial service provisions in the legal sector.

As a KTP Associate you will be expected to manage this project and effectively transfer relevant and bleeding edge knowledge from academia to Katchr by developing cutting edge AI and ML models and translate them for use in real world business applications. You will be working with academics from Leeds University Business School, and the Technical Team at Katchr. You will also have access to cutting edge research resources, vast pools of data, and scientific expertise to assist you in building a robust and futureproof business dashboard.

Katchr is a leading provider of software-based technologies in the legal sector. The chance to work with such a prominent company is a fantastic opportunity to help further your career in industry whilst also expanding your technical and research skills with an established team of academic researchers. This is a great opportunity to establish a career at Katchr, with the potential to build and lead an AI/ML team in the future.

Find out more about careers at Katchr here: <https://careers.katchr.com/>

Main duties and responsibilities

- Leverage advanced Machine Learning (ML) techniques to build a range of predictive analytics models for financial performance prediction and risk modelling. Develop an understanding of the challenges in the operations of legal/finance sectors.
- Manage the needs and cultures of both the academic and company partners.
- Communicate effectively with multiple stakeholders, including engagement with the 'AI Steering Group' with the goal of assessing new solutions and responding to feedback.



- Deliver and lead the complex project, using time management skills and coordinating with the various teams involved.
- Develop and implement dedicated in-house training programmes to help other teams understand and adopt new analytical tools.
- Prepare research papers based on the project findings with help from the project's academic supervisor.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What are the benefits of being a KTP Associate?

- All KTP Associates spend 10% of their time on Personal Development, making full use of a £4,000 development budget.
- Access to two residential training sessions aimed at developing project management skills.
- Opportunity to gain both management and academic experience.
- Potential to fast-track to a senior management career in industry.
- Access to a wealth of academic resources including working closely with academics from the School of Computing and Leeds University Business School, and access to a wide range of personal development and training resources.
- The University of Leeds hosts the Leeds Institute for Data Analytics (LIDA), and you will have access to LIDA seminars and training sessions, special interest groups, and its vibrant community of researchers and practitioners.
- Access to a Travel & Subsistence and Consumables budget.
- Access to mentoring sessions through Innovate UK.

Qualifications and skills

Essential

- A PhD or Master's level qualification in Computer Science, Mathematics, Statistics, Physics, or other relevant fields demonstrating a strong foundation in analytical and computational skills.
- Proficiency in data science and machine learning, with practical experience in using Scikit-learn for predictive modelling and data analysis.



- Strong proficiency in programming with demonstrated skills in Python and/or R, essential for developing algorithms and handling data analysis tasks.
- An understanding of deep learning frameworks and architectures, including hands-on experience with Artificial Neural Networks (ANNs) such as Convolutional Neural Networks (CNNs) and Recurrent Neural Networks (RNNs), through the use of platforms like TensorFlow, PyTorch, and Keras.
- A practical knowledge of statistics as it applies to data science, with the capability to employ statistical methods to extract insights from data and guide the development of models.

Desirable

- Familiarity with transformer models and their application in the field of machine learning.
- An understanding of time series analysis and forecasting, with knowledge of relevant machine learning algorithms and techniques.
- Experience with Graph Neural Networks (GNNs) and their deployment in analysing graph-structured data.
- Insight into MLOps practices, including data version control and proficiency with model management platforms like MLflow or Kubeflow.
- Experience with data management and extraction.
- Project management experience, demonstrating a history of successful change management and project execution within technical environments.

Contact information

ACADEMIC SUPERVISOR

Dr Nabi Omidvar (University of Leeds)

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COMPANY SUPERVISOR

Niall Staward

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Katie Wallett

Innovation and Business Development Project Coordinator (University of Leeds)

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Additional information

Find out more about [Leeds University Business School](#)

Find out more about [Athena Swan at Leeds University Business School](#)

Find out more about [Katchr](#)

Find out more about [Innovate UK](#)

Interview location/format

Details will be provided should you be successful in gaining an interview.

Working as a KTP Associate at Leeds

You will be an employee of the University of Leeds and will have access to University facilities. However, you will be based at the company premises, working to their terms. You will have access to the University's USS pension scheme, with generous employer contributions.

A diverse workforce

The Leeds University Business School has received a prestigious Athena SWAN bronze award from [Advance HE](#), the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

Working at Leeds

We are a campus based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our [Working at Leeds](#) information page.

Our University

At the University of Leeds, we are committed to providing a culture of inclusion, respect and equity of opportunity that attracts, supports, and retains the best students and staff from all backgrounds. Whatever role we recruit for we are always



striving to increase the diversity of our community, which each individual helps enrich and cultivate. We particularly encourage applications from, but not limited to Black, Asian, people who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability

Information for disabled candidates

Information for disabled candidates, or candidates with impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at hr@leeds.ac.uk

Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

