Machine Learning Researcher – KTP Associate

OPPORTUNITY
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Reference: 0043-25

Salary: £37,000 - £40,000 depending on experience and qualifications, with an additional £5,000 for the duration of the project for professional and personal development.

Contract Type: Fixed Term (30 Months)

Basis: Full Time

Job description

This 30-month project takes the form of a [Knowledge Transfer Partnership](#) (KTP), which provides you with practical and formal training and the availability of support from experienced mentors from [Lee Mount Healthcare](#), [Aston University](#) and [Innovate UK Business Connect](#).

Job Purpose:

This Knowledge Transfer Partnership (KTP) project aims to develop a Smart Care Home software platform to improve residents' quality of care by enhancing personalised care plans, enabling early health interventions, and enhancing operational efficiency.

LMH has already started the development of a digital system to move away from manual paper administration but has reached a point where it needs to elevate its digital capabilities to develop a novel, automated system to take full advantage of the latest advances in Artificial Intelligence (AI) and Machine Learning (ML).

The successful applicant for this position will design novel data analysis and machine learning techniques to automate the capture of data within the setting and to provide data-driven, personalised insights to help staff make better care decisions. They will work with end users to design and deploy a software application, providing staff and other stakeholders with intuitive access to the AI-driven functionality.

The KTP will enable LMH to enhance the quality of care provided to residents and the operational efficiency of the business. Embedding the new knowledge will enable LMH to further disseminate the novel capabilities across the care sector through the provision of the Smart Care Home platform via a Saas model.

Candidate Profile: PhD in AI and/or Machine Learning (ML) or a master's degree with equivalent professional experience.

Skills/ experience required include:

Essential for the role:

- ▶ Advanced AI and data analytics, including ML algorithms and advanced data analytics techniques.
- ▶ Experience of developing software and deploying it to end users.
- ▶ Experience in data management and security.
- ▶ Proficient in Python programming language.
- ▶ Experience with workflow and data automation.
- ▶ Complex problem-solving skills.
- ▶ Good time management and adhering to deadlines.
- ▶ Ability to present results and findings in clear and concise ways.
- ▶ Ability to work as part of the team and independently.

Desirable for the role:

- ▶ Experience in the digital health domain or in a care home setting specifically.
- ▶ Knowledge or exposure to AI-based decision support systems.
- ▶ Some prior knowledge of conducting research.
- ▶ Knowledge of project management tools and techniques, however, relevant training will be provided, if required.

Personal attributes required for the role:

- Strong interpersonal skills to successfully work with various stakeholders.
- Strong communication and presentation skills. The ability to work within a cross-disciplinary project team.
- Leadership qualities, maturity, good self-organisation, and time management skills to deliver the KTP project and ensure it achieves agreed milestones and objectives.
- Ability to work independently, as well as part of the team and use initiative.
- Strong desire to pursue innovative approaches and pathways

Main Duties/Responsibilities:

- Integration of heterogeneous data sources and types into a single data platform.
- Applying techniques which deliver high-accuracy results in predictions derived from the data in this critical care management context.
- Design and implement algorithms which detect both short-term anomalies and long-term changes in health metrics.
- Investigating various data sources and value of different data sets, taking end-users into consideration to utilise the data which will add the most value to the system.
- Working with varying groups of people from the tech-savvy to care providers with limited technical capabilities and being able to communicate system development to differing audiences.
- Working with LMH staff to implement the new system and adjust their current culture, accordingly, including training end-users with large variances in capabilities to be able to use and interrogate the system effectively.
- Working in a residential care home, being sensitive towards residents when shadowing caregivers in their data collection routines.
- Supporting LMH staff to effectively embed new knowledge through audience-tailored communications and demonstrations of system functionalities.
- Some level of interaction with care home patients and other relevant stakeholders might be required occasionally.

Personal attributes:

- Strong interpersonal skills to successfully work with various stakeholders.
- Strong communication and presentation skills. The ability to work within a cross-disciplinary project team.
- Leadership qualities, maturity, good self-organisation, and time management skills to deliver the KTP project and ensure it achieves agreed milestones and objectives.
- Ability to work independently, as well as part of the team and use initiative.
- Strong desire to pursue innovative approaches and pathways

Additional responsibilities

- Engage in continuous personal and professional development in line with the demands of the role, including undertaking relevant training and development activities.
- Ensure and promote the personal health, safety and wellbeing of staff and students.
- Carry out duties in a way which promotes fairness in all matters and which engenders trust.
- Promote equality of opportunity and support diversity and inclusion as well as working to support the University's environmental sustainability agenda and practices

Person specification

	Essential	Method of assessment
Education and qualifications	▶ PhD in AI and/or Machine Learning (ML) or a master's degree with equivalent professional experience.	Application form and interview
Experience	▶ Advanced AI and data analytics, including ML algorithms and advanced data analytics techniques. ▶ Experience of developing software and deploying it to end users. ▶ Experience in data management and security. ▶ Proficient in Python programming language. ▶ Experience with workflow and data automation.	Application form and interview
Aptitude and skills	▶ Complex problem-solving skills. ▶ Good time management and adhering to deadlines. ▶ Ability to present results and findings in clear and concise ways. ▶ Ability to work as part of the team and independently.	Application form and interview

	Desirable	Method of assessment
Experience	▶ Experience in the digital health domain or in a care home setting specifically.	Application form and interview

	▶ Knowledge or exposure to AI-based decision support systems.	

University values

All staff are expected to demonstrate/promote the University's values and expectations, which are an integral part of our strategy and underpin the culture of the University. In addition, our leaders are expected to be accountable, help to execute strategic visions of the University and share and set clear expectations that inspire those around them.

Values + Behaviours

Innovation
We strive for excellence within ourselves and others, providing solutions to new and existing challenges.

Collaboration
We work best when we are collaborative, working together to contribute to the Aston community.

Ambition
We strive together for improvement and innovation looking ahead to see the bigger picture.

Inclusion
We treat everyone in our community equally and how they would like to be treated.

Integrity
We are open, honest and fair. We take ownership of the way we work and how we treat each other.

How to apply

You can apply for this role online via our website https://www2.aston.ac.uk/staff-public/hr/jobs.

Applications should be submitted by 23.59 on the advertised closing date.
All applicants must complete an application form, along with your CV.

Any CV sent direct to the Recruitment Team and Recruiting Manager will not be accepted.

If you require a manual application form, then please contact the Recruitment Team via recruitment@aston.ac.uk.

Contact information

Enquiries about the vacancy:

Name: Dr Roberto Alamino, Applied AI & Robotics, School of Computer Science, College of Engineering and Physical Sciences

Email: r.c.alamino@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:
Recruitment Team via recruitment@aston.ac.uk or 0121 204 4500.

Additional information

Visit our website https://www2.aston.ac.uk/staff-public/hr for full details of our salary scales and benefits Aston University staff enjoy.

Salary scales: https://www2.aston.ac.uk/staff-public/hr/payroll-and-pensions/salary-scales/index

Benefits: Benefits and Rewards | Aston University

Working in Birmingham: https://www2.aston.ac.uk/birmingham

Employment of Ex-Offenders: Under the Rehabilitation of Offenders Act 1974, a person with a criminal record is not required to disclose any spent convictions unless the positions they applying for is listed an exception under the act.

Eligibility to work in the UK:

Non-UK/Irish nationals will require a visa or immigration permission that allows them to work in the UK.

The most common work visas are the Skilled Worker, Global Talent and Graduate immigration routes. You can find more information about these visa categories on our web page for candidates. The UKVI website provides further detail about different work visas and the eligibility criteria for each.

Academic Technology Approval Scheme (ATAS):
If you will conduct research in your role and you apply for a Skilled Worker or Temporary Worker GAE visa, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application.

This process can take at least 6 weeks to process, and Aston will consider this when confirming your expected start date. Processing times will increase between April and September and can longer to complete.

There is no fast-track option available. ATAS certificates will be processed in order of receipt.

You can find more information about ATAS on our candidate immigration page.

Before you start and Right to Work

90-day entry vignette
If you have applied for your visa outside of the UK, you will receive a vignette in your passport which is usually valid for 90 days. Please make sure to travel to the UK within the 'valid from' and 'valid to' dates on this visa. If you entered the UK before or after these dates, you would not 'activate' the visa and you would need to leave and re-enter the

country.

You will also receive a decision letter confirming details about your immigration permission and where to collect your Biometric Residence Permit.

Cost of Living - Estate and Letting Agents

There are numerous Estate and Letting Agents in and around Birmingham that can help you find suitable accommodation. The Midland Landlord Accreditation Scheme provides a list of professional agencies and landlords who have applied with them for accreditation. Whilst accreditation is not a guarantee of quality, it provides some reassurance about the standard of the service they provide.

You can also use property search websites such as Rightmove or Zoopla.

Equal Opportunities

Aston University promotes equality and diversity in all aspects of its work. We aim to ensure, through our admissions policies for students, and our staff recruitment and selection processes that we encourage applications from all groups represented in the wider community at a local, national and international level.

The University will endeavour not to discriminate unfairly or illegally, directly or indirectly, against student or potential students, staff or potential staff. This commitment applies to all functions of the University and to any stage of an individual's career.

An Equal Opportunities Monitoring Form is included within the application form. Data you provide on the Equal Opportunities Monitoring Form will be included in a general database, for statistical monitoring purposes, enabling the University to monitor the effectiveness of its Policy, Codes of Practice and Guidelines on Equal Opportunities in Employment. Individuals will not be identified by name.

Data Protection

Your personal data will be processed in compliance with the Data Protection Act 2018 and the General Data Protection Regulation ((EU) 2016/679) ("GDPR"). The University's Data Protection Policy and Privacy Notices, including the Job Applicant Privacy Notice can be found at https://www2.aston.ac.uk/data-protection. Your application will only be used to inform the selection process, unless you are successful, in which case it will form the basis of your personal record with the University which will be stored in manual and/or electronic files. Information in statistical form on present and former employees is given to appropriate outside bodies.

Full details of our terms and conditions of service and associated policies and procedures are available online at https://www2.aston.ac.uk/staff-public/hr/policies

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