

Reference: R210058

Salary: £32,000 per annum

Contract Type: Fixed Term (30 months)

Basis: Full Time

Closing Date: 23.59 hours GMT on Sunday 21 March 2021

Interview Date: Friday 09 April 2021

Machine Learning and Data Scientist - KTP Associate

Candidate brief



Job description

This 30 month project takes the form of a Knowledge Transfer Partnership (KTP) (<http://www.ktponline.org.uk/>), which provides you with practical and formal training and the availability of support from experienced mentors at R L Capital Ltd., Aston University and Innovate UK.

Job Purpose:

R L Capital Ltd. has partnered with Aston University on this new KTP project to develop novel, real-time wheel alignment fault detection system (AutoAlign for cars & vans) that will deliver accurate fault detection of wheel misalignment, enabling drivers and fleet operators to reduce power consumption and minimise air pollution caused by excess exhaust emissions and tyre wear.

The associate will have responsibility for development of a new product & working collaboratively to establish a new methodology for New Product Introduction. Good communication & inter-personal skills & an entrepreneurial spirit are essential with an interest in customer liaison and marketing.

The role offers an exciting opportunity to work as part of a team with RL Capital Ltd. and Aston to develop the knowledge that will underpin the company's future developments with good prospects for career development in the R L Capital team.

You will also develop a broad set of skills in project management, stakeholder management, working on a strategic project in an innovative business, and carrying out cutting-edge research. The skills developed during the course of the project will enable the successful candidate to enhance their future career opportunities.

The company:

R L Capital Ltd. is an automotive technology company that develops intelligent tyre & wheel monitoring systems, reducing carbon & micro-particle vehicle emissions. RLC has developed & commercialised real-time tyre/ wheel condition monitoring systems: *TACscan* (predictive tyre tread wear) & *TyreWatch* (commercial vehicle tyre pressure monitoring). RLC has an ongoing technology partnership with McLaren Applied for TyreWatch. Find out more please visit: www.tyrewatch.com

Main Duties and Responsibilities:

- ▶ To lead the development of novel in situ wheel misalignment detection system (AutoAlign for cars & vans) and establish a new methodology for New Product Introduction.
- ▶ Apply ML techniques to the data, building configuration patterns to enable the detection & quantification of wheel alignment states. Analyse data and come up with appropriate conclusions/findings.
- ▶ To work closely with RLC staff to embed skills through collaborative/ agile working, and present project progress across the company.
- ▶ Establish a Project Advisory Group.
- ▶ Ability to balance technical and commercial interests of the project.
- ▶ To drive the project, and take responsibility for delivering the proposed plan of work in collaboration with the academic and company teams.
- ▶ Disseminate project progress across the company and within Aston's research environment, recording developments in a technical library and in appropriate reports as necessary.
- ▶ Manage financial aspects of the project including liaising with Aston to prepare finance statements for approval and seek approval for & forecast expenditure throughout the project.
- ▶ Ability to compile research findings with a possibility of producing research papers/abstracts.

Additional responsibilities

- ▶ Engage in continuous personal and professional development in line with the demands of the role, including undertaking relevant training and development activities to develop themselves and support the development of others.
- ▶ 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	Educated to PhD level with a first degree in Computer Science, Electronic Engineering or Mechatronics Engineering, with a PhD in a data science related field.	Application form
Experience	<p>Experience in data analytics, particularly in Machine Learning.</p> <p>The ideal candidate will also have knowledge and/or experience in signal processing and/or dynamics.</p> <p>Ability to demonstrate their numerical and machine learning software skills in e.g. MATLAB, Python,</p> <p>Experience of supervised and supervised machine learning techniques.</p>	Application form and interview
Aptitude and skills	<p>Knowledge/ understanding of operation of embedded systems/ IOT devices and inertia MEMS sensors would be a distinct advantage</p> <p>Ability to analyse quantitative and qualitative data, presenting results and summarize main findings and conclusions.</p> <p>Good problem-solving skills</p> <p>Good project management skills with the ability to develop work plans under his/her own initiative and work to deadlines.</p> <p>Ability to balance technical and commercial interests of the project. Ability to work closely with all stakeholders</p> <p>Work as effective team member whilst also being highly self-motivated and capable of working independently.</p> <p>Enthusiasm and maturity to take ownership of all aspects of project management.</p> <p>Excellent interpersonal and communication skills (both written and oral).</p>	Application form and interview

	Desirable	Method of assessment
Experience	<p>NoSQL, HPC, Cuda, Apache Spark, ETL Data wrangling experience of working on complex or large-scale databases.</p> <p>Experience of working with industry.</p>	Application form and interview
Aptitude and Skills	<p>Understanding of web technologies.</p> <p>Knowledge of version control, unit testing, continuous integration and code quality tools.</p>	Interview

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 23.59pm 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 jobs@aston.ac.uk.

Contact information

Enquiries about the vacancy:

Name: Dr Yu Jia

Job Title: Senior Lecturer

Email: y.jia1@aston.ac.uk

Name: Dr Maria Chli

Job Title: Reader

Email: m.chli@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:

Recruitment Team via jobs@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: <https://www2.aston.ac.uk/staff-public/hr/Benefits-and-Rewards/index>

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:

Post-Brexit transition period / EU Settlement Scheme

The post-Brexit transition period ended on 31 December 2020. If you are an EU/EEA citizen and you were a resident in the UK before 31 December 2020, you and your family members (including non-EU citizens need to apply to the EU Settlement Scheme to continue to live, work and study in the UK beyond 30 June 2021. The deadline for applying to the EU settlement scheme is 30 June 2021. You can apply via the Government webpage <https://www.gov.uk/settled-status-eu-citizens-families>

Irish Nationals do not need to apply for settlement as they retain the right to work in the UK.

New immigration system for EU/EEA and Swiss Nationals who were not resident in the UK before 31 December 2020

A new immigration system has been introduced for people arriving in the UK from EEA countries with effect from 1 January 2021. In addition to those who have always required a visa, EU citizens moving to the UK to work will need to get a visa in advance. You can find more information on the following website. Candidates should check their eligibility to enter or remain in the UK in advance of making any job application via the UKVI website <https://www.gov.uk/browse/visas-immigration/work-visas>. Before applying you should ensure that you meet the requirements. If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful.

If you require a visa to work in the UK the most common types of visa are:

Skilled Worker Visa

<https://www.gov.uk/skilled-worker-visa>

Global Talent Visa

If you are a leader or potential leader in one of the following fields you may be eligible to apply for a Global Talent Visa:

- Academia or Research
- Arts and Culture
- Digital Technology

Please click the following link for further information and to check your eligibility for this visa.

<https://www.gov.uk/global-talent>

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>.

