



Data Scientist (KTP Associate)

Job Ref: REQ17893

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

A KTP (Knowledge Transfer Partnership) is a collaboration between a university and company, jointly funded by the Company and Innovate UK.

KTP positions offer the following opportunities:

- To lead on a commercially focused industry project with support from academia
- Academic and Industry mentoring
- Training opportunities, including potential for management qualifications

This KTP is an 18 month project between Loughborough University's Computer Science Department and Aviation Intelligence Ltd. KTP aims to help businesses to improve their competitiveness and productivity through the better use of knowledge, technology and skills that reside within the UK Knowledge Base. Aviation Intelligence expect to offer a permanent position based on successful completion of this project.

Company summary

The Aviation Intelligence Team provide digital transformations for the aviation sector - integrated data intelligence platforms, analytical tools, solutions and machine learning insights to leverage value from all data and human resources.

The company are committed to collaborating with the Loughborough University to develop data science and machine learning apps for the Aviation sector.

Aviation Intelligence's long-term strategy is to grow the data science division of their business and this project, along with the successful candidate will be key in the expansion.

Department summary

Founded in 1974, the Department of Computer Science was one of the first university computing departments to be established in Great Britain. It is a part of the Loughborough University School of Science. It currently consists of 24 full time academic members of staff and over 70 full time researchers. The departments research expertise includes digital imaging and computer vision, robotics and autonomous systems, artificial intelligence, computer networks, control systems and theoretical computer science. The 2014 Research Excellence Framework classified 95% of the Department's research as of an international standard (rated 2*, 3* or 4*) under the Computer Science and Informatics category. The department has been placed amongst the top five UK departments in computer science in teaching quality during the past seven years.

Job Description

Job Grade: Other

Job Purpose

The associate will work on a KTP project funded by Innovate UK to support Aviation Intelligence to develop and embed leading edge deep machine learning algorithms with predictive and prescriptive analytics into a global Smart Airport Advanced Intelligence (SAAI) Product Suite - accelerating digital transformation within the sector.

Job Duties

- Capturing, indexing/annotating and storage of big data including distributed processing of large data
- Effective data cleaning, conditioning and pre-processing that will directly benefit the final project outcomes
- Understanding the use of state-of-the-art feature detection, feature extraction, classification and clustering (i.e. machine learning) algorithms capable of delivering the prediction and descriptive analytic capability
- Integrating an end-to-end data capture, storage, predictive and descriptive analytic capability and creating an associated software/IP product
- Managing fast-changing, sector specific, business intelligence requirements and how to dynamically and pro-actively change the nature of the final project outcomes to give the best possibilities of commercial/economic impact of project deliverables.
- Understanding of the costing/pricing infrastructure of product development.
- The Associate will support the phased technology roll-out and be involved in giving technical presentations to the clients of the company and at trade fairs.

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.

Previous KTP Associates or employees of Aviation Intelligence are not eligible to apply

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.

Organisational Responsibility

Reports to the KTP Lead Academic– Prof Eran Edirisinghe

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 – Test/Assessment Centre/Presentation
- 3 – Interview

Essential Criteria

Area	Criteria	Stage
Experience	Experience using existing deep learning networks/systems for big-data analytics	1,3
	Experience of creating databases for efficient, indexed storage and working knowledge of data-cleaning and conditioning approaches.	1,3
	Experience in information visualisation.	1,3
Skills and Abilities		
	Knowledge of Machine Learning and embedded intelligence	1,3
	Programming skills in C/C++, Java, MATLAB, and exposure to Machine Learning toolkits such as WEKA.	1,3
	Self-motivated driven individual	1,3
	Ability to think analytically and communicate with a wide range of academic and commercial personnel	1,3
	Good attention to detail	1,3
	Excellent time management skills.	1,3
	Excellent practical and problem solving skills	1,3
Training	Commitment to continuing professional development, and willingness to undertake training as/when required	1,3
Qualifications	Degree (min 2:1) or MSc in Computer Science or closely allied discipline	1
Other	Commitment to observing the University's Equal Opportunities policy at all times.	3

Desirable Criteria

Area	Criteria	Stage
Experience	Experience of presenting research work at conferences and/or trade fairs etc	1,3
Skills and Abilities	Knowledge of recent developments in clustering and classification algorithms.	1,3
Qualifications	PhD	1

Conditions of Service

The position is full-time and fixed-term for 18 months. Salary will be between £25,000 and £32,000 per annum, at a starting salary to be confirmed on offer of appointment.

The successful candidate will also receive a £3,000 training budget for their professional development as part of the project.

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

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme (further details are available at: <http://www.lboro.ac.uk/services/hr/a-z/childcare-information---page.html>)

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/>

Informal Enquiries

Informal enquiries should be made to: Professor Eran Edirisinghe by email at E.A.Edirisinghe@lboro.ac.uk or by telephone on +44 (0)1509 635704 OR to David Hiorns, Aviation Intelligence Ltd, by email at: david.hiorns@aviation-intelligence.com or by telephone on 07425 153933.

Applications

The closing date for receipt of applications is **13 October 2017**. **Interviews will be held on 24 October 2017**.