

## UNIVERSITY OF LINCOLN JOB DESCRIPTION

<b>JOB TITLE</b>	Data Scientist (KTP Associate)				
<b>DEPARTMENT</b>	Research and Enterprise				
<b>LOCATION</b>	Brayford				
<b>JOB NUMBER</b>	EL1121	<b>GRADE</b>	Starting £23,000, but negotiable for the right candidate	<b>DATE</b>	April 2017
<b>REPORTS TO</b>	Income Generation Manager				

### CONTEXT

The post has been created as a result of an exciting and innovative Knowledge Transfer Partnership (<https://www.gov.uk/guidance/knowledge-transfer-partnerships-what-they-are-and-how-to-apply>) between Replay Maintenance Ltd, [www.replaymaintenance.co.uk](http://www.replaymaintenance.co.uk) and the School of Computer Science in the College Science at the University of Lincoln ([www.lincoln.ac.uk](http://www.lincoln.ac.uk)).

Replay Maintenance Ltd operates across the UK providing maintenance packages to suit every type, age and condition of synthetic sports surface. The customer base includes private owners, Clubs, Schools, Universities, Leisure Centres, Prisons, MOD bases, major Facility Management companies.

We are looking to recruit a Computer Scientist with a strong postgraduate or undergraduate (first class or upper second class) in Computer Science, IT for Business Computer Systems, Statistics and Machine Learning to undertake and manage this 24 month Knowledge Transfer Partnership (KTP). This project aims to develop a data mining platform to revolutionise synthetic sport surface maintenance practice and principles.

#### **Skills required:**

- Proficient in software development, e.g. C#, Python, SQL.
- Knowledge and/or experience of data mining and machine learning
- Knowledge and/or experience of cloud-based databases, e.g., Microsoft Azure/AWS
- Excellent communication and team working skills

The KTP Associate will be employed by the University of Lincoln for 2 years but be based at Replay Maintenance Ltd Head office in Long Bennington and subject to its employment practices and conditions of work. The successful candidate will be supervised both by Replay Maintenance Ltd and the College of Science at the University of Lincoln.

### JOB PURPOSE

The project will develop a data analytics platform to revolutionise synthetic sport surface maintenance practice and principles. Key project objectives are:

- To develop a novel bespoke software solution that will enable Replay Maintenance Ltd to enhance its service delivery and capture data that can be utilised in a unique offering.
- To complete a review of the current process and system, and understand the data challenges.
- To develop a Cloud based database.
- To develop the state of the art data mining and machine learning algorithms
- To manage the 24 month collaboration between the University of Lincoln and Replay Maintenance Ltd.

## KEY RESPONSIBILITIES

Review and analysis
Analyse business requirements and review of existing systems and procedures
Cloud-based Database Development
Develop a proprietary database for Replay Maintenance Ltd based on a major cloud platform. Provide big data support/evidence for data mining and pattern recognition
Data Mining and Pattern Recognition
Develop state-of-the-art data mining and machine learning algorithms to analyse the data of Replay Maintenance Ltd and provide intelligent data solutions to improve its business. This stage focuses on mathematical models and experiments.
System Development and Testing
<p>Develop an information system for Replay Maintenance Ltd. It includes:</p> <ol style="list-style-type: none"> <li>1) Front-end web user interface for employees and clients to log in and use</li> <li>2) Middleware programme that implements the state-of-the-art data mining and machine learning algorithms</li> <li>3) Back-end tier cloud-based database</li> </ol>

**In addition to the above, undertake such duties as may reasonably be requested and that are commensurate with the nature and grade of the post.**

### ADDITIONAL INFORMATION

Scope and dimensions of the role
<p>The postholder will deliver the work as set out in the 2 year work plan, along with attend development courses, conferences and training events that are deemed suitable for the project delivery</p>

Key working relationships/networks	
Internal	External
<ul style="list-style-type: none"> <li>• Other in-house technical staff, marketing staff, and sales staff</li> <li>• Lead Academic</li> <li>• Academic Supervisor</li> <li>• Departmental Managers</li> <li>• Finance Departments</li> </ul>	<ul style="list-style-type: none"> <li>• External clients, i.e. Replay Maintenance Ltd customers and/or their representatives</li> <li>• University research and support staff and undergraduate and postgraduate students</li> <li>• Other KTP Associates</li> </ul>



UNIVERSITY OF  
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# UNIVERSITY OF LINCOLN PERSON SPECIFICATION

<b>JOB TITLE</b>	Data Scientist – KTP Associate	<b>JOB NUMBER</b>	ELXXXX
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Selection Criteria	Essential (E) or Desirable (D)	Where Evidenced Application (A) Interview (I) Presentation (P) References (R)
<b>Qualifications:</b>		
MSc in Computing, IT for Business Computer Systems, Statistics and Machine Learning	D	A, I
BSc in Computing, IT for Business Computer Systems, Statistics and Machine Learning	E	A, I
<b>Experience:</b>		
Experience of Software development in multiple programming languages (e.g. C#, Python, SQL)	E	A, I, P
Data analysis	E	A, I, P
Experience of using a variety of machine learning algorithms and databases	E	A, I, P
<b>Skills and Knowledge:</b>		
Strong communications skills (both written and oral)	E	A, I
Ability to work confidently with a range of people, both internally and externally	E	A, I
<b>Competencies and Personal Attributes:</b>		
Ability to manage and lead a project with multiple stakeholders	E	A, I, P
Professional and diplomatic approach to work at all times	A	A, I
Ability to learn and work in new technologies in a short time span	E	A, I
Enthusiastic about R&D	E	I
<b>Business Requirements:</b>		
Flexible in working hours – to accommodate travel and weekend working	E	

**Essential Requirements** are those, without which, a candidate would not be able to do the job. **Desirable Requirements** are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements.

<b>Author</b>	MD	<b>HRBA</b>	HA
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