



Job Description and Person Specification

Summary

Job title:	Data Solutions Engineer (KTP Associate)
Area:	Faculty of Arts & Sciences
Reference:	EHA2616-0125
Grade and Salary:	£39105 - £43878 per annum. Grade 8, Points 31 to 35
Contract Type:	Fixed Term for 30 Months
Hours:	Full Time (36.25 Hours per week)
Location:	Burscough, West Lancashire, L40 8AH
Accountable to:	Prof. Amr Ahmed, Head of Department of Computer Science
Reporting to:	Prof. Marcello Trovati, KTP Academic Supervisor

About the Role

The post of Data Solutions Engineer offers an exciting opportunity to work on a groundbreaking project in the field of AI data science, with a highly respected academic team and a successful small business, HRH International Exports, who wholesale export British grocery and confectionery products worldwide to both small retailers and large wholesale distributors.

<https://www.hrh-international.com/>

This post will lead the delivery of embedding a new machine learning-driven data platform into the business, linking data on customer behaviours, orders, suppliers and pricing, and external market trends to provide both process automation improvements and also deep predictive insights to achieve significant productivity improvements and to scale up sales channels.

The project offers a highly rewarding opportunity to make a transformative impact on the digital readiness of the business, with exciting challenges in the machine learning approaches required for demand forecasting, process prioritisation, and managing dynamic pricing environments.

The project utilises the latest academic thinking and novel data science approaches to deliver real commercial impact. The project also aligns to UN sustainability and development goals to harness innovation in advanced technologies, such as machine learning, to improve efficiency warehousing operations and logistics infrastructure creating supply chain resilience and ultimately makes a contribution to global efforts towards Net Zero.

Edge Hill's Computer Science Department is a thriving, international community of students and staff, committed to teaching and research excellence, professional practice, interdisciplinary collaborations and partnerships. The research centres in the department are primarily focused on smart data analytics and visualisation, disruptive technologies and smart applications, cyber security, autonomous systems and robotics, telecommunications, computer vision, augmented and virtual reality.

Edge Hill's Business School are also involved in the project, providing input from their research specialisms in industrial engineering and quality management as core processes within the company's business model are adapted to embrace a new data-driven approach.

HRH International Experts

Our partner on this project, where this post will be based, is HRH International Exports. They are an established wholesale exporter of grocery and confectionary, focusing on brands and products which would be typically recognised as British made or a commonly found in British supermarkets. This includes brands such as Walkers, Twinings, Oxo, Marmite, Bisto and McVities. Their main export markets are in the USA, Canada, Australia and New Zealand.

HRH also provide outsourced warehousing and shipping services to UK food manufacturers, which is a strong area for their future potential growth.

This post will be working closely with the small team responsible for customer relationship management, order management, and supplier management.

Knowledge Transfer Partnerships (KTPs) www.ktp-uk.org/graduates

KTPs are collaborative projects between industry, charities or public sector partners and academia which seek to transfer knowledge and research for the development of new products and services. The KTP Associate, which is this post, works within the partner to lead the development of the project, under the co-supervision of the academic team and HRH's Director for Operations, Peter Hughes.

For the Associate, KTPs enhance your career by providing an opportunity to lead a challenging project central to an organisation's strategic development and long-term growth. The teams at the university and the organisation provide you with full support. KTPs offer a generous personal training development budget to augment the Associate's technical and management skills.

Innovate UK also facilitates excellent opportunities for the ~800 KTP Associates around the UK to network and share their experiences.

About you

You will possess academic and/or professional experience in machine learning development/engineering. An MSc in a relevant Computer Science discipline is essential.

You will be able to demonstrate in-depth knowledge and proficiency in Python as the primary language used for machine learning development, alongside knowledge of other programming languages such as C++ or Java. Knowledge of different machine learning algorithms and models is also essential, along with understanding and/or experience of developing technologies using Large Language Models.

An understanding and/or keen interest in how machine learning technologies impact on business workflows will also be highly desired.

You will be able to critically analyse literature, with an ability to assess trends and evaluate risks and opportunities. You will have strong interpersonal and communication skills for regular liaison with project stakeholders, be highly organised, and able to work to strict deadlines.

KTP Associates are responsible for spear-heading the project and will support to develop their project management skills through specialist training from Innovate UK.

Duties and Responsibilities

1. To play a leading role in delivery of the KTP, working with all stakeholders to ensure efficiency and success.
2. To develop the full system and user requirements for the proposed solution. To design the architecture and the components of the solution.
3. To develop and integrate the necessary components of the system using an agile, test-driven development approach.
4. To work closely with the academic and company teams to address technical and/or research challenges arising from the project.
5. To produce full detailed documentation of the system at key points throughout the project.
6. Preparation and delivery of resources and training materials for relevant user levels.
7. To assist in the writing of academic output to support the findings of the project.
8. To adhere to the project management, administrative and other compliance protocols required for the KTP.
9. The successful candidate may be required to travel to client or other stakeholder sites around the UK throughout the project.
10. To work openly and cooperatively with all colleagues, proactively resolving issues and challenges, contributing to identifying continuous improvements.
11. To act as an ambassador for the Department and the partner at all times.
12. To undertake any other duties deemed appropriate by the Head of Department or KTP Academic Supervisor.

In addition to the above all Edge Hill University staff are required to: adhere to all University policies and procedures; demonstrate excellent customer care; undertake appropriate learning and development; actively participate in performance review; encourage equality, diversity and inclusion; respect confidentiality; act in a sustainable manner; and proactively consider accessibility.

Eligibility

Candidates should note that shortlisting will be based on information provided on the application form with regard to the applicant's ability to meet the criteria outlined in the Person Specification attached.

Internal staff wishing to apply for a fixed term role as a secondment opportunity must discuss this with their existing line manager before applying.

Person Specification

Please note that applications will be assessed against the Person Specification using the following criteria, therefore, applicants should provide evidence of their ability to meet all criteria. Where a supporting statement is indicated you will be asked to provide a statement of how you meet this criterion within the application form.

Qualifications

Criteria	Essential or Desirable Criteria	Method of Assessment
Good first degree in a relevant computer science related subject	Essential	Application
Good higher degree which included the study of machine and/or deep learning	Essential	Application
Relevant professional technical qualifications	Desirable	Application

Experience and Knowledge

Criteria	Essential or Desirable Criteria	Method of Assessment
Demonstrable knowledge of machine learning and predictive modelling	Essential	Supporting Statement & Interview
Demonstrable knowledge of statistical techniques for data mining	Essential	Supporting Statement & Interview
Demonstrable knowledge of Natural Language Processing	Desirable	Supporting Statement & Interview
Demonstrable knowledge in information and cyber security considerations for cloud services	Desirable	Supporting Statement & Interview
Demonstrable knowledge of unit testing, functional testing and testing frameworks	Essential	Supporting Statement & Interview
A good understanding of how machine learning technologies can be used to optimise business workflows and decision making	Desirable	Supporting Statement & Interview

Abilities and Skills

Criteria	Essential or Desirable Criteria	Method of Assessment
Strong interpersonal and communication skills. Particularly communicating complex conceptual ideas or complex information to both technical and non-technical stakeholders, with an ability to influence key decision-making	Essential	Interview & Presentation
Strong project management skills, being highly organised, maintaining attention to detail, and able to prioritise workload to meet deadlines	Essential	Supporting Statement & Interview
Ability to think critically to proactively identify and resolve problems, recommending appropriate options for courses of action	Essential	Supporting Statement & Interview
Ability to build an effective team environment, securing consensus and cooperation, and working flexibly when required.	Essential	Supporting Statement & Interview

Candidate Guidance and How to Apply

Join our team at Edge Hill University! We're looking for talented individuals to join our dedicated and supportive community and make a difference to our students. At Edge Hill we value the benefits a rich and diverse workforce brings and welcome applications from all sections of society.

Have any questions?

For informal enquiries about this vacancy, please contact Marcello Trovati, Professor in Computer Science at Marcello.Trovati@edgehill.ac.uk.

Ready To apply:

1. Go to our jobsite - <https://jobs.edgehill.ac.uk/Vacancies.aspx>
2. Find the role you wish to apply for.
3. Click the "**Apply Online**" button on the job advert and follow the easy steps to prepare and submit your application.

Key points:

- **Closing date:** Please refer to the advert for the closing date for this vacancy. Vacancies automatically close at 23:59pm [GMT]. Please note, that the University may on occasion close a post early if vacancies attract high volumes of applications; we therefore encourage you to prepare and submit your application in good time.
- **Next steps:** We'll contact you by email, usually within two weeks, to let you know if you have been shortlisted.
- **Shortlisting:** Information you provide on your application will be assessed against the person specification for this role. We encourage you to clearly show how you meet the requirements presented in the person specification. We encourage use of specific examples of your experience, knowledge and skills within your supporting statement(s).
- **Pre-employment checks:** Following offer, successful candidates will need to provide original proof of identity, qualifications and professional memberships, and evidence their right to work in the UK. You will also complete a pre-employment health questionnaire to support Edge Hill University make appropriate adjustments to support you in the role.
- **References:** You will be asked to provide details of two referees on your application form. References will be collected following issue of an offer of employment. Guidance on how to select your referees is provided on the

form. The University may ask you for alternative or additional referees to cover your previous three years of employment during pre-employment

- **Start date:** A start date will be arranged after pre-employment checks are completed.