



KTP Associate - AI Solutions Developer

Job Summary

This is an exciting opportunity for an ambitious Data Scientist to fast-track their career development as a Knowledge Transfer Partnership (KTP) Associate, utilising skills in Data Science with a specific focus on Machine Learning, Information Extraction, Optimisation, Data Visualisation, and Generative Artificial Intelligence (AI).

You will undertake a 27-month collaborative project between IPS (Integrated Project Solutions) and Robert Gordon University (Aberdeen Business School and School of Computing, Engineering and Technology), jointly funded by Innovate UK and IPS. The post will be based at the company's offices in Aberdeen; occasional travel to the company's offices in Edinburgh will be required.

Your responsibility will be to design and implement cutting-edge AI-driven scheduling, data-mining, data-visualisation, and generative AI systems tailored to IPS's unique operational complexities. Using advanced techniques novel within this industrial context, you will collaborate closely with domain experts within IPS to understand the company's specific requirements, research academics within RGU, and another KTP associate focusing on business transformation, to deliver innovative solutions.

RGU has been awarded a dual-associate KTP project to support the digital transformation of IPS, a specialist fabrication and site services company. Bringing together expertise in AI, business management systems, and digital process design, the project will create cultural change within IPS, embedding innovative digital practices to improve operational efficiencies and drive growth. IPS predominantly works within the Oil and Gas sector; their fabrication work relies on precise quality certification, accurate trace and record-keeping: a laborious, standards-driven process highly prone to human error. This project will help embed capabilities in areas such as advanced scheduling, real time traceability and continuous improvement, supporting IPS transition into a digitally-enabled and agile organisation.

You will receive extensive practical and formal training, gain marketable skills, broaden your knowledge and expertise within an industrially relevant project, and gain valuable experience from industrial and academic mentors. You will demonstrate a strong desire for self-development and leadership growth; you will be supported through a dedicated personal development budget to upskill throughout the project.

You must have at least a first-Class Honours degree in computing, machine learning, AI or strongly related field. A postgraduate degree such as MSc in Data Science or a PhD in a relevant field would be highly desirable. You should be self-motivated with an ability to work independently and to tight deadlines within a dynamic and small team environment. In addition, you must have strong software development skills as well as a genuine enthusiasm for applying advanced methods to real-world problems. Strong knowledge and understanding of programming languages such as Python, is essential. Experience with modern machine learning frameworks, such as PyTorch, Tensorflow, and LangChain, and optimisation frameworks is a must, with experience using information extraction and generative AI frameworks preferable

Excellent communication and interpersonal skills are required, as you must be able to communicate effectively with a range of different individuals. i.e., technical, academic, business and customers. Project management, team working and flexibility will be a key requirement.

Sponsorship is not available for this role but we will consider eligibility under the Global Talent visa

Job Description

RESPONSIBLE TO: RGU: David Corsar, Eleni Kesidou; IPS: Neil Buchanan and Raff Celentano

RESPONSIBLE FOR: No supervisory responsibilities

PURPOSE OF POST:

- Transfer knowledge of data science and state-of the art machine learning techniques to IPS.
- Take a leading role in designing, implementing, and evaluating a set of methods for automated scheduling of jobs within the company.
- Take a leading role in creating and evaluating a set of data mining methods for extracting information from a range of documents including textual and other data modalities.

- Develop, evaluate, and deploy a functional framework supporting a dashboard providing real-time, interactive data visualisation, and AI based generation of reports.
- Develop technical and personal skills (verbal and written) to meet the requirements of increasing responsibility and experience level

PRINICPAL DUTIES:

- Deliver the project objectives as detailed in the KTP project workplan.
- Undertake an in-depth and critical literature review in scheduling, machine learning, and real-time data visualisation.
- Explore, understand, and critically evaluate existing technologies and practices in use at the company.
- Take a leading role in developing and evaluating performance of the developed software and AI models.
- Maintain an up-to-date project plan and provide regular progress reports.
- Deliver presentations to immediate project team members and technical experts.
- Any other duties that maybe reasonable, assigned by the Academic Supervisor/ Company Supervisory teams.

Person Specification

ESSENTIAL REQUIREMENTS

Qualifications and Professional Memberships:

First Class Undergraduate Degree (Masters degree preferred) in Computing, Data Science, Data Science, Artificial Intelligence, or a strongly related discipline.

Knowledge

- Strong knowledge of data exploration, cleaning and pre-processing
- Strong knowledge of optimisation/scheduling algorithms, machine learning, and applied data mining, and generative AI.
- Strong knowledge and understanding of programming languages (e.g., Python)
- Strong knowledge of modern optimisation and machine learning frameworks.

Experience

- Experience in Data science/ Machine Learning related discipline.
- Technical experience in designing, developing, and evaluating data-driven solutions using machine learning and/or deep learning frameworks.
- Software development experience in the creation of user-centred digital solutions, including interactive visualisation dashboards.
- Experience of software development and systems integration.
- Experience of deploying AI-based solutions locally or on the cloud

Skills

- Strong software development and scripting skills.
- Strong communication and interpersonal skills
- Interdisciplinary collaboration
- Report writing skills
- Very good problem-solving skills.
- Project management skills

Personal

- Self-motivated with an ability to work independently and to tight deadlines within a dynamic and small team environment.
- An ability to undertake independent research and development analysis.
- Willingness and ability to learn quickly.
- Team working and flexibility

DESIRABLE REQUIREMENTS

Qualifications and Professional Memberships:

Postgraduate or a PhD degree in Data Science, Artificial Intelligence, Machine Learning or similar field.

Knowledge

- Knowledge of Deep Learning, Information Extraction, Retrieval Augmented Generation is highly desirable.
- Knowledge or prior experience working in the industry sector would be highly desirable.

Experience

- Experience of deploying AI-based solutions locally or on the cloud
- Experience of cloud systems such as AWS, AZURE, Microsoft 360 or similar platforms.

Personal

- Enthusiasm for applying advanced AI methods to real-world problems

Salary: 33000.00 - 38000.00 GBP per Year

Position Type: Full Time , Fixed Term 27 Month 37.5 Hours per Week