University of Salford MANCHESTER

Research & Knowledge Exchange

School of Science, Engineering & Environment

Job Opportunity

Artificial Intelligence & Computer Vision

/ KTP Associate position

Ace Grading – Banbury, OX16

Overview, Job Description and Person Specification

Knowledge Transfer Partnership (KTP) Associate with Ace Grading

Overview

In collaboration with Ace Grading, the University of Salford has been awarded a 36-month Knowledge Transfer Partnership (KTP). This position is central to the development and implementation of advanced artificial intelligence and computer vision technologies that will transform the way trading cards are graded, authenticated and processed. The project will develop innovative AI-driven systems that automate defect detection, centring analysis, metadata extraction, visual similarity search and intelligent label generation, significantly increasing operational capacity, efficiency and scalability.

Ace Grading is one of the UK's fastest growing trading card grading companies, providing professional authentication, grading, encapsulation and bespoke labelling services for collectors, investors and retailers. Demand for its services now significantly exceeds operational capacity, creating an opportunity to embed advanced AI capabilities that will help the business scale while maintaining the high levels of quality, consistency and transparency for which it is known.

The position will be based within Ace Grading's operations team at the company's headquarters in Banbury, Oxfordshire; however, the Associate will be required to travel to the University of Salford regularly for project meetings, training and collaboration with the academic team. You will work closely with colleagues across grading, operations, IT, systems and creative teams, gaining exposure to all aspects of the business while leading a strategically important innovation project.

The project aims to develop a suite of bespoke AI and machine learning solutions capable of automating key grading activities and supporting future growth. Ace Grading's strength lies in its deep industry expertise, grading knowledge and customer-focused service offering; however, it currently lacks specialist expertise in artificial intelligence, computer vision, machine learning and MLOps required to realise its long-term growth ambitions. This KTP will bridge that knowledge gap by embedding advanced digital capabilities directly within the business.

This is an opportunity to lead a significant technological transformation while receiving comprehensive professional development and training. The project will be supported by academic experts from the University of Salford, providing access to leading research, technical guidance and specialist expertise in artificial intelligence, machine learning and computer vision.

Job Purpose

This KTP will develop and embed advanced artificial intelligence, machine learning and computer vision capabilities that transform Ace Grading's operational processes and significantly increase grading capacity.

The project will create innovative systems capable of automating defect identification, centring measurement, metadata capture, visual similarity search and bespoke label generation. These technologies will form the foundation of a human-in-the-loop auto-grading platform that combines expert oversight with machine efficiency, supporting faster processing times while maintaining grading quality and consistency.

By embedding AI capabilities throughout the business, Ace Grading expects to significantly improve operational efficiency, increase grading throughput, reduce processing times and create a scalable foundation for future growth. The project will also establish new organisational capabilities in artificial intelligence, data management, computer vision and digital systems integration, enabling the business to continue innovating beyond the lifetime of the KTP.

The Associate will play a key role in transferring knowledge into the organisation, ensuring systems, processes and technical expertise are successfully embedded and adopted by staff. This will help establish a culture of data-driven innovation and position Ace Grading as a leader in technology-enabled grading services within the collectibles sector.

Beyond the KTP, the business intends to retain and build upon the capabilities developed through the project, continuing to refine and expand its AI-enabled grading platform. This will create a sustainable competitive advantage, support future innovation and enable Ace Grading to continue scaling its operations in the UK and internationally.

Responsibilities

The Associate will take on the challenging role of managing this 36-month programme of research, development and implementation. This represents a unique opportunity to become a key member of the organisation, working closely with senior management while gaining first-hand experience of strategic decision-making, innovation management and organisational transformation.

The key objectives for this KTP Project are the following:

1. Gain a detailed understanding of Ace Grading's business processes, operational workflows, systems and strategic objectives.
2. Design and develop bespoke artificial intelligence, machine learning and computer vision solutions to automate grading, defect detection, centring analysis and metadata capture.
3. Develop visual similarity search capabilities and intelligent automation tools to streamline data entry, product identification and grading workflows.
4. Develop and embed new organisational capabilities in AI, machine learning, data science and digital transformation through documentation, training and knowledge transfer activities.
5. Create and implement robust machine learning pipelines, data management frameworks and MLOps capabilities to support long-term AI deployment and monitoring.
6. Develop, test, validate and deploy AI-enabled grading systems and support their integration into live operational environments.

This Job Description is a guide to the work you will initially be required to undertake. It may be changed from time to time to meet changing circumstances. It does not form part of your Contract of Employment.

We are seeking a candidate committed to continuing Personal/Professional Development and able to engage with appropriate development activities as required for the role. For example, KTP project management training, Data Protection training and any other identified appropriate essential learning opportunities. As part of the role there will be regular performance development and monitoring to support and enable the associate to develop essential skills and knowledge.

Person Specification

The successful candidate should demonstrate the following, which are 'Essential' (E) or 'Desirable' (D)

Qualifications

1. A minimum 2.1 BEng/BSc in Computer Science/Data Science/related subject or a masters/postgraduate degree in Computer Science/Data Science/related subject if BSc is in another field (E)

2. Relevant masters/postgraduate degree or /equivalent professional experience in a related field. D

Background, Experience & Knowledge

3. Machine learning and deep learning techniques, with the ability to apply these to real-world operational or commercial problems (E)

4. Computer vision techniques for image classification, object detection, segmentation, feature extraction or visual inspection tasks (E)

5. Developing, training, testing and validating deep learning models (E)

6. Working with foundation models for language or vision, and engaging with machine learning communities such as Hugging Face (E)

7. MLOps practices, including experiment tracking, dataset versioning, model monitoring, CI/CD, model registries or deployment pipelines (D)

8. OCR, image processing algorithms, metadata extraction, visual similarity search, vector databases, embeddings or vision-language models (D)

9. Building APIs, integrating AI models into business systems or deploying models in production environments (D)

10. Experience working in a fast-paced commercial, operational, manufacturing, digital product or high-volume processing environment (D)

Skills & Competencies

11. Exceptional ability to communicate complex technical information clearly and concisely to non-technical audiences across levels of seniority (E)

12. Ability to build and maintain excellent working relationships with a range of people at all levels across the department/stakeholders (E)

13. Excellent organisational skills, with an ability to prioritise issues and multitask according to business need (E)