

KTP Associate Role Profile

Job Title:	AI & Computer Vision Associate (KTP Associate, Marwell Wildlife)
Business Partner / University School	Marwell Wildlife and the University of Surrey's Centre for Vision, Speech and Signal Processing.
Based at:	Marwell Zoo, Colden Common, Winchester, Hampshire, SO21 1JH

Job Summary and Purpose:

The **University of Surrey**, in collaboration with **Marwell Wildlife** - a leading conservation charity and the owner-operator of **Marwell Zoo** - is recruiting a forward-thinking **AI and Computer Vision Associate** to lead a transformative **Knowledge Transfer Partnership (KTP)** Project. A KTP offers a rare opportunity to drive innovation at the intersection of academia and industry, leading a structured, pre-defined programme of work that delivers tangible, real-world impact.

About KTP:

The **KTP** programme is not a typical (post)graduate scheme – it is a launchpad for ambitious individuals who want to fast-track their careers in a dynamic business environment. As a **KTP Associate**, you'll transition seamlessly from academic study into industry, applying your expertise to tackle meaningful challenges and deliver innovation from day one.

A KTP Project is a three-way collaboration between:

- **You, the Associate** – leading innovation and driving change.
- **The Business Partner** - where you are based, applying your skills in a commercial setting.
- **The Knowledge Base (university)** - providing academic insight, expertise, and ongoing support.

The benefits:

- **Hands-on experience** leading a high-impact project in a live, commercially focused setting.
- A **dedicated professional development budget** of £2,000 p.a. to invest in your growth.
- **Tailored business and leadership training** designed to accelerate your career progression.
- **Mentorship and guidance** from both academic specialists and industry experts.
- The opportunity to **develop highly transferrable skills** in project management, strategic thinking, and innovation delivery.

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This **36-month fixed-term role** is co-funded by Innovate UK and the Business Partner and offers the **potential to progress into a permanent position** with the Business Partner upon successful completion of the KTP, subject to performance and business needs.

Although employed by the University of Surrey, the Associate will be embedded within the business, working day to day alongside company professionals while drawing on continuous guidance from leading university academics to drive innovation and deliver impact.

About Marwell:

Marwell Wildlife is a leading, award winning wildlife conservation charity and the owner-operator of Marwell Zoo. The zoo generates revenue through a diverse portfolio of activities, including visitor admissions, retail and catering services, ticketed and B2B events, school, college and university education programmes, and immersive experiences such as VR and animal feeding encounters. The charity is additionally supported by fundraising campaigns, grants, donations and legacies.

At the heart of **Marwell Wildlife's mission** is a commitment to **inspire people** through meaningful connection with nature and supporting nature's recovery through hands on conservation.

If you are passionate about applying your academic knowledge to real-world challenges and motivated by the opportunity to contribute to impactful biodiversity conservation and organisational innovation, this **KTP offers a distinctive career pathway**. You will work at the intersection of cutting-edge research and practical implementation, developing solutions in a dynamic, collaborative environment while shaping a rewarding and future-focused career.

Main Responsibilities/Activities

This KTP aims to develop an **AI-driven nocturnal behaviour observation System**, transforming how animal welfare is monitored and understood. By uncovering night-time behavioural changes, you'll help enable earlier detection and proactive prevention of animal health and welfare issues before these become serious – redefining how animal wellbeing is understood, monitored, and safeguarded.

New capabilities for Marwell include:

- i) An innovative 24/7 animal welfare monitoring system, designed to improve animal welfare while reducing operational costs.
- ii) A robust framework for developing and scaling AI use in animal welfare monitoring across all species, enclosures, and contexts.
- iii) A dedicated team using software outputs for digital content monetisation, creating engaging content for a global audience and supporting new revenue streams.

The project is grounded in specialised **AI and Computer Vision, animal behaviour and welfare science**, and **data analytics, visualisation & business insights**, drawing on expertise from the University of Surrey's **Centre for Vision, Speech, and Signal Processing (CVSSP)**. It

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will follow the CRISP-DM (Cross-industry standard process for data mining) framework, encompassing key phases such as data extraction, preparation, intensive analysis, and evaluation. Sophisticated machine learning models will be leveraged to unlock insights, including sleep patterns, behavioural indicators, and night-time activity.

As project manager, the Associate will have **day-to-day ownership of the project** while collaborating closely with the university and the business partner, whose experienced teams will provide comprehensive technical, domain, and operational support.

The Associate will play a **central role in enabling effective knowledge exchange** and integration between staff at Marwell Zoo and the University of Surrey academics.

- Driving KTP impact through cross-business engagement and stakeholder collaboration.
- Aligning methodologies, terminology, and assumptions across technical, scientific, and operational teams.
- Defining performance goals, metrics and evaluation criteria for AI solutions.
- Co-ordinating real-time integration of data components during testing and deployment.
- Visually and verbally articulating complex solutions to a range of stakeholders, including non-technical audiences.

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Person Specification**The post holder profile:**

- Holds a **postgraduate** degree in **AI, Data Science, Computer Vision** or closely related, technically focused discipline, or equivalent industrial experience.
- Demonstrable experience in **Computer vision and machine learning**, including developing, training, evaluating, and deploying computer vision models.
- Skilled in **Programming languages** relevant to data and modelling like Python and C#.
- **Business intelligence and data visualisation**: proficient in tools like Power BI, SQL, and cloud-based databases.
- **Proven experience** in building and maintaining data pipelines, designing scalable database architectures, and developing secure APIs for data integration.
- **High competency written and spoken English at a technical level** (e.g. IELTS 7.0 or a degree from a majority English-speaking country).
- **Strong project management and business acumen**, including mapping business processes, presenting insights, and translating technical concepts for non-technical audiences.
- **Excellent communication skills**, with the ability to engage effectively with technical, business, policy, scientific stakeholders.
- Proven ability to **translate technical concepts** for non-technical audiences.
- **Collaborative team player** with a commitment to continuous development, especially soft skills and stakeholder engagement.
- Demonstrates a **strong interest in collecting and characterising behavioural data** using advanced data science methods, including Machine Learning and Artificial Intelligence techniques.

Relationships and Contacts

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This is not an exhaustive list of every relationship the post holder has but is a brief description of those that play an important part in the post holder successfully carrying out the role.

As an integral member of the University of Surrey's KTP team, the Associate will work closely with both the university's academic and the business partner's supervisors. This collaboration includes forming a project team and maintaining regular engagement with the University's KTP Office.

Weekly meetings – held both online and on-site at the business partner's site - will support ongoing collaboration with the academic team and ensure the project stays on track.

The role also offers valuable networking opportunities with other KTP Associates across the UK, encouraging peer learning and professional development. Additionally, the Associate will work directly with professionals from the business partner organisation and its stakeholders, gaining insights and feedback that will help shape the project's direction and overall impact.

Internal Relationships

- University KTP Office
- Business Partner KTP delivery team
- Academic KTP delivery team
- Other University of Surrey Staff and Students
- Other Company Staff

External Relationships

- Innovate UK Business Connect - KT Adviser.
- Other KTP Associates.
- Project focus group.
- Other stakeholders.

Special Requirements

Based at the Business Partner site, the KTP Associate:

- must be prepared to work outside normal working hours, when required, including weekends.
- must be willing to undertake further studies, as approximately **10%** of their working hours should be **dedicated to training and development**.
- will be required to travel to the University of Surrey, and occasionally more widely.

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As a university employee, all KTP Associates are expected to:

- Undertake such other duties within the scope of the KTP as may be requested by their Supervisors or Line Manager.
- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
- Follow the Business Partner's policies and working practices at all times to ensure that no disclosure of confidential information results from their actions.
- Follow University/School/Department policies and working practices at all times to ensure that no disclosure of confidential information results from their actions.
- Ensure they are aware of and abide by all relevant University / Business Partner / KTP regulations and policies relevant to their role.
- Help maintain a safe working environment by:
 - Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
- Following local codes of safe working practices and the University of Surrey Health and Safety Policy
- Be a team-player, supportive of colleagues and always operating in a collegiate manner.

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Addendum

This document provides additional information relating to both specific aspects of the post/faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Role Profile.

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Background Information

The working hours, annual leave, and holiday entitlement are those of the Business Partner.

The **standard working hours** of Marwell Wildlife are **35 hours** per week.

- The standard hours are **Monday to Friday 09:00-17:00** including a 1-hour lunchbreak (unpaid)

Annual Leave

The annual leave entitlement is 25 days per annum, plus UK public holidays.

- All annual leave should be approved and taken within the period of the KTP.
- The holiday year runs from 1st January to 31st December.

Potential to secure a permanent job with the business at the end of the KTP, subject to performance and business needs.

Please also see <https://www.marwell.org.uk/> and <https://iuk-ktp.org.uk/>

Benefits to expect from the University of Surrey include a generous pension, cycle-to-work scheme, and season ticket loans. Access to a wide range of courses under the Learning & Development Programme; library access.

Benefits to expect from the KTP Programme include opportunity to gain professional qualifications or a higher degree. Access to academic support and the University's facilities to help deliver the KTP project.

Person Specification

This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role. This is in addition to the criteria contained within the accompanying generic Role Profile.

	Essential/ Desirable
Holds a postgraduate degree (e.g. MSc or PhD) in AI, Data Science, Computer Vision or closely related, technically focused discipline, or equivalent industrial experience.	E
Skilled in Programming languages relevant to data and modelling like Python and C#.	E
Demonstrable experience in computer vision and machine learning , including developing, training, evaluating and deploying computer vision models.	E
Proficient in business intelligence and data visualisation tools like Power BI, SQL, and cloud-based database systems.	E
Proven experience in building and maintaining data pipelines , designing scalable database architectures , and developing secure APIs for data integration.	E

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High level of written and spoken English suitable for technical communication (e.g. IELTS 7.0 or a degree from a majority English-speaking country).	E
Project management and business acumen , including mapping business processes, presenting insights, and translating technical concepts for non-technical audiences.	E
Excellent communication skills , with the ability to engage effectively with technical, business, policy, scientific stakeholders.	E
Proven ability to translate technical concepts for non-technical audiences.	E
Methodical in experimentation with accurate and professional reporting.	E
Collaborative team player with commitment to continuous professional development.	E
An interest in zoo animal welfare, animal behaviour, or conservation	D
Ability to collect, curate and characterise behavioural data using advanced data science techniques.	D
Special Requirements	Essential/Desirable
A clear understanding of the Business Partner where you'll be based; the KTP programme - how it bridges business and the University, and the vital role the KTP Associate.	E
Ability to absorb knowledge and further develop skills during the KTP to complement those skills already in place, especially soft skills and stakeholder engagement.	E

Key Responsibilities

This document is not designed to be a list of all tasks undertaken but an outline record of any faculty/post specific responsibilities (5 to 8 maximum). This should be read in conjunction with those contained within the accompanying generic Role Profile.

1. Lead the delivery of an innovative AI project, bringing together the academic expertise and commercial application.
2. Collaborate with Marwell staff to acquire and manage large-scale video-data transfer into the development environment.
3. Collaborate with zoo scientists to collect and characterise behavioural data using advanced data science techniques.
4. Ensure computing infrastructure is scalable, cost-effective, and practical for long-term operational use.
5. Engage with zoo scientists/managers/academics to ensure the solution delivers measurable value.
6. Navigate ethical complexities in a zoological setting.
7. Translate complex data into actionable insights, using visualisation tools to present findings aligned with business needs and priorities.
8. Embed new knowledge and capabilities within both the Business Partner and the University, ensuring long-term impact and knowledge transfer.

N.B. The above list is not exhaustive.