

Data and Generative AI Scientist - KTP Associate



OPPORTUNITY

Where change
gets real.



Reference: 0104-25

**Salary: £45,000 per annum depending on experience with up to £6,000
dedicated development and training budget**

Contract Type: Fixed Term

Basis: Full Time

Job description

This 36-month project takes the form of a [Knowledge Transfer Partnership](#) (KTP), which provides you with practical and formal training and the availability of support from experienced mentors from [Phoebus Software Limited](#), [Aston University](#) and [Innovate UK Business Connect](#).

Job Purpose:

This Knowledge Transfer Partnership (KTP) project will revolutionise the user/customer experience in the financial sector by the development of an “Intelligent Service Platform (ISP)”, a conversational query tool, based on a private Large Language Model (LLM), which will leverage Generative AI to allow an agent or borrower to answer queries relating to an account in plain language.

Phoebus Software is an independent software house founded in 1989 and a leading provider of real-time loan and savings management systems for retail banks, building societies, lending businesses and third-party services across the UK and Ireland.

The KTP will boost Phoebus’ client offering, with improved ease and speed to access data and information within the complex loan and savings platform and associated database. Accuracy is a key aspect as the ISP will query only the data in the system.

This KTP is a great opportunity for someone who wishes to plan and deliver business change. You will work with senior University academics on a commercial project which puts theory and modelling into practice.

Candidate Profile: Minimum Masters’ level degree in Artificial Intelligence (AI) and/or Data Analytics with relevant practical / work experience in the field. A PhD would be desirable.

Skills/ experience required include:

Essential:

- ▶ Robust knowledge and demonstrable project experience in data science, predictive analytics, and Generative AI (GenAI)
- ▶ Natural Language Processing (NLP)
- ▶ Strong database skills - able to understand existing databases and data structures which will form the basis of the ISP, and be able to structure the new database, likely to be a vector database
- ▶ Excellent communication skills at all levels including the ability to train staff and work with diverse user groups across academia and industry
- ▶ Strong time management skills
- ▶ Proven ability to solve large complex problems
- ▶ Basic understanding of GDPR requirements and constraints
- ▶ Basic understanding of the commercial and technical constraints which come with working in a heavily regulated industry

Experience in the following would be desirable:

- ▶ Experience in a research or commercial environment in a similar sector or application domain
- ▶ Delivery of user-centric GUIs and excellent User Experience
- ▶ Automatic annotation of data assets
- ▶ Data classification and clustering

- ▶ Prompt engineering for Generative AI
- ▶ Training Large Language Models (LLMs), such as GPT-4 and Llama 2
- ▶ Strong SQL query skills
- ▶ Project management
- ▶ Producing academic publications of the highest standards
- ▶ Technical writing and reporting
- ▶ Professional experience in financial services
- ▶ Experience of commercial software development and deployment, including QA processes, deployment pipelines and automation

Main Duties/Responsibilities:

- ▶ Elicit, capture and document user, technical and business requirements.
- ▶ Ensure required data is in appropriate structure.
- ▶ Manage commercial sensitivity and technical security so that only the permitted data/information is provided to a specific conversation.
- ▶ Identify, manage and eliminate LLM 'hallucination' to reach zero error rate from the LLM.
- ▶ Development of a great user experience.
- ▶ Implement effective Cyber Security and data protection controls.
- ▶ Recommend and manage access to appropriate computational power/data storage.
- ▶ Take account of Phoebus Software user requirements in terms of service quality, and the need to ensure accuracy and consistency in the delivery of the ISP.

Additional responsibilities

- ▶ Engage in continuous personal and professional development in line with the demands of the role, including undertaking relevant training and development activities.
- ▶ Ensure and promote the personal health, safety and wellbeing of staff and students.
- ▶ Carry out duties in a way which promotes fairness in all matters, and which engenders trust.
- ▶ Promote equality of opportunity and support diversity and inclusion as well as working to support the University's environmental sustainability agenda and practices.

Person specification

	Essential	Method of assessment
Education and qualifications	<ul style="list-style-type: none"> ▶ Minimum Masters' level degree in Artificial Intelligence (AI) and/or Data Analytics with relevant practical / work experience in the field. 	Application form and interview
Experience	<ul style="list-style-type: none"> ▶ Robust knowledge and demonstrable project experience in data science, predictive analytics, and Generative AI (GenAI) ▶ Natural Language Processing (NLP) ○ Strong database skills - able to understand existing databases and data structures which will form the basis of the ISP, and be able to structure the new database, likely to be a vector database 	Application form and interview
Aptitude and skills	<ul style="list-style-type: none"> ▶ Excellent communication skills at all levels including the ability to train staff and work with diverse user groups across academia and industry ▶ Strong time management skills ▶ Proven ability to solve large complex problems ▶ Basic understanding of GDPR requirements and constraints ○ Basic understanding of the commercial and technical constraints which come with working in a heavily regulated industry 	Application form and interview

	Desirable	Method of assessment
Aptitude and Skills	<ul style="list-style-type: none"> ▶ PhD in Artificial Intelligence (AI) and/or Data Analytics with relevant practical / work experience in the field. 	Application form and interview
Education and qualifications	<ul style="list-style-type: none"> ▶ Experience in a research or commercial environment in a similar sector or application domain ▶ Professional experience in financial services ○ Experience of commercial software development and deployment, including QA processes, deployment pipelines and automation 	Application form and interview
Experience	<ul style="list-style-type: none"> ▶ Delivery of user-centric GUIs and excellent User Experience ▶ Automatic annotation of data assets ▶ Data classification and clustering ▶ Prompt engineering for Generative AI ▶ Training Large Language Models (LLMs), such as GPT-4 and Llama 2 ▶ Strong SQL query skills ▶ Project management ▶ Producing academic publications of the highest standards ○ Technical writing and reporting 	Application form and interview

University values

All staff are expected to demonstrate/promote the University's values and expectations, which are an integral part of our strategy and underpin the culture of the University. In addition, our leaders are expected to be accountable, help to execute strategic visions of the University and share and set clear expectations that inspire those around them.

Values + Behaviours

				
Innovation	Collaboration	Ambition	Inclusion	Integrity
We strive for excellence within ourselves and others, providing solutions to new and existing challenges.	We work best when we are collaborative, working together to contribute to the Aston community.	We strive together for improvement and innovation looking ahead to see the bigger picture.	We treat everyone in our community equally and how they would like to be treated.	We are open, honest and fair. We take ownership of the way we work and how we treat each other.

How to apply

You can apply for this role online via our website <https://www2.aston.ac.uk/staff-public/hr/jobs>.

Applications should be submitted by 23.59 on the advertised closing date.
All applicants must complete an application form, along with your CV.

Any CV sent direct to the Recruitment Team and Recruiting Manager will not be accepted.

If you require a manual application form, then please contact the Recruitment Team via recruitment@aston.ac.uk.

Contact information

Enquiries about the vacancy:

Name: Dr Philip Weber

Job Title: Lecturer at School of Computer Science and Digital Technologies, College of Engineering and Physical Sciences

Email: p.weber1@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:

Recruitment Team via recruitment@aston.ac.uk or 0121 204 4500.

Additional information

Visit our website <https://www2.aston.ac.uk/staff-public/hr> for full details of our salary scales and benefits Aston University staff enjoy.

Salary scales: <https://www2.aston.ac.uk/staff-public/hr/payroll-and-pensions/salary-scales/index>

Benefits: [Benefits and Rewards | Aston University](#)

Working in Birmingham: <https://www2.aston.ac.uk/birmingham>

Employment of Ex-Offenders: Under the Rehabilitation of Offenders Act 1974, a person with a criminal record is not required to disclose any spent convictions unless the positions they applying for is listed an exception under the act.

Eligibility to work in the UK:

Non-UK/Irish nationals will require a visa or immigration permission that allows them to work in the UK.

The most common work visas are the [Skilled Worker](#), [Global Talent](#) and [Graduate](#) immigration routes. You can find more information about these visa categories on our [web page for candidates](#). The [UKVI website](#) provides further detail about different work visas and the eligibility criteria for each.

Academic Technology Approval Scheme (ATAS):

If you will conduct research in your role and you apply for a Skilled Worker or Temporary Worker GAE visa, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application.

This process can take at least 6 weeks to process, and Aston will consider this when confirming your expected start date. Processing times will increase between April and September and can longer to complete.

There is no fast-track option available. ATAS certificates will be processed in order of receipt.

You can find more information about ATAS on our candidate immigration page.

Before you start and Right to Work

90-day entry vignette

If you have applied for your visa outside of the UK, you will receive a vignette in your passport which is usually valid for 90 days. Please make sure to travel to the UK within the 'valid from' and 'valid to' dates on this visa. If you entered the UK before or after these dates, you would not 'activate' the visa and you would need to leave and re-enter the

country.

You will also receive a decision letter confirming details about your immigration permission and where to collect your Biometric Residence Permit.

Cost of Living - Estate and Letting Agents

There are numerous Estate and Letting Agents in and around Birmingham that can help you find suitable accommodation. The Midland Landlord Accreditation Scheme provides a list of professional agencies and landlords who have applied with them for accreditation. Whilst accreditation is not a guarantee of quality, it provides some reassurance about the standard of the service they provide.

You can also use property search websites such as Rightmove or Zoopla.

Equal Opportunities

Aston University promotes equality and diversity in all aspects of its work. We aim to ensure, through our admissions policies for students, and our staff recruitment and selection processes that we encourage applications from all groups represented in the wider community at a local, national and international level.

The University will endeavour not to discriminate unfairly or illegally, directly or indirectly, against student or potential students, staff or potential staff. This commitment applies to all functions of the University and to any stage of an individual's career.

An Equal Opportunities Monitoring Form is included within the application form. Data you provide on the Equal Opportunities Monitoring Form will be included in a general database, for statistical monitoring purposes, enabling the University to monitor the effectiveness of its Policy, Codes of Practice and Guidelines on Equal Opportunities in Employment. Individuals will not be identified by name.

Data Protection

Your personal data will be processed in compliance with the Data Protection Act 2018 and the General Data Protection Regulation ((EU) 2016/679) ("GDPR"). The University's Data Protection Policy and Privacy Notices, including the Job Applicant Privacy Notice can be found at <https://www2.aston.ac.uk/data-protection>. Your application will only be used to inform the selection process, unless you are successful, in which case it will form the basis of your personal record with the University which will be stored in manual and/or electronic files. Information in statistical form on present and former employees is given to appropriate outside bodies.

Full details of our terms and conditions of service and associated policies and procedures are available online at <https://www2.aston.ac.uk/staff-public/hr/policies>

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