Job Description

Please complete all accessible boxes and refer to the guidance on writing Job Descriptions

Position Details

Faculty/Professional Support Service	Faculty of Science and Engineering
School/Department	Dept of Computing and Mathematics
Division/Section/Unit	
Job Title	Machine Learning Engineer (KTP Associate)
Vacancy No	Recruitment Team
Grade	£30,000 - £33,000
Hours of Work	Full time
Contract Duration (Perm/Fixed Term)	Fixed Term Contract – 24 months
Reports To (Job Title)	Dr David McLean, Senior Lecturer, MMU Andrew West-Moore, Head of Product, My First Five Years
Responsible For (Job Title)	N/A

Principal Accountabilities

Delivery of a Knowledge Transfer Partnership (KTP) to develop a novel Machine Learning and Artificial Intelligence capability to determine how such approaches can be applied to develop predictive capabilities related to child development.

Employed and supported by a team of academic experts from the University, you will be based at My First Five Years Ltd's premises in Didsbury.

Ensuring successful stated project outcomes and compliance with MMU, Innovate UK and My First Five Years Ltd's procedures and financial regulations through acting as overall project manager.

Key Tasks

Current situational analysis, technology review and formulation of project team.

Research and development to evaluate suitable algorithms on the domain data.

Development and evaluation of SCA methods arising from research and development.

Analysis of skill milestone sequences through visualisation.

Development and evaluation of 'best' SCA method to multiple paths.

Dissemination, embedding and technology handover.

Special Features

Willingness to travel both in the UK and abroad in order to aid successful completion of the project.

Miscellaneous

You have a legal duty, so far as is reasonably practical, to ensure that you do not endanger yourself or anyone else by your acts or omissions. In addition, you must cooperate with the University and My First Five Years Ltd on health and safety matters and must not interfere with or misue anything provided by health, safety and welfare purposes.

You are responsible for applying the University's Equal Opportunities Policy in your own area of responsibility and in your general conduct.

You have a responsibility to promote high levels of customer care within your own area of work.

Such other relevant duties commensurate with the grade of the post as may be assigned by the Manager in agreement with you. Such agreement should not be unreasonably withheld.

Review

This is a description of the job at the time of issue. It is the University's practice periodically to review and update job descriptions to ensure that they accurately reflect the current nature of the job and requirements of the University and to incorporate reasonable changes where required, in consultation with the job holder.

Person Specification

In order to be shortlisted you must demonstrate that you meet all the essential criteria and as many of the desirable criteria as possible. Where we have a large number of applications that meet all of the essential criteria, we will then use the desirable criteria to produce the shortlist.

Selection Criteria

Attributes		Item	Relevant Criteria	Identification Method	Rank
1	Skills & Abilities	1.1	Good oral and written communication skills with the ability to lead a project from the technical/scientific perspective and to produce research outputs such as academic papers publishable at top venues.	A/I	E
		1.2	Capable of working collaboratively in a small team environment.	A/I	E
		1.3	Capable of communicating complex concepts in a clear manner to a wide-ranging audience.	A/I	E
		1.4	A passion for discovering knowledge from data and the ability to tell stories from data.	A/I	E
		1.5	Able to work independently, make decisions and manage personal workload.	A/I	E
		1.6	Keen to work in a future focused environment that is rapidly evolving	A/I	E
2	General & Specialist Knowledge	2.1	Understanding and implementation of algorithms and data science pipelines together with full documentation to allow reproducible outcomes, for example Python and its Data Science ecosystem, e.g. NumPy, pandas, Matplotlib, scikitlearn, PyTorch, Keras.	A/I	E
		2.2	Performing software design, implementation, testing and version control (e.g., Git and GitHub) using sound software engineering principles and practices, together with strong programming skills and fully conversant in Object Oriented Programming (e.g. Java, C#, etc) and Data Structures.	A/I	E
		2.3	Most stages of data science pipelines, including data extraction, integration, cleaning, normalisation, model	A/I	E

			building with inferential statistics and machine learning, and data visualisation.		
3	Education & Training	3.1	MSc or PhD in Computer Science, Artificial Intelligence (AI), Statistics, Mathematics, Data Science, or related discipline. Candidates with a first class (Hons) degree in a relevant subject, such as Data Science or Computer Science with evidence of conducting a machine learning (or AI) project will be considered.	A/C	E
4	Relevant Experience	4.1	Experience in selection, implementation and application of suitable machine learning algorithms, for optimisation (e.g. Genetic Algorithms, Particle Swarm) or clustering for a specific problem domain.	A/I	E
5	Special Requirements	5.1	You must be willing to travel in the UK and abroad (as required) and to attend training, conferences, etc.	A/I	E

Date of Revision	February 2022

Key	**Identification Method**	**A**	Application Form
		I	Interview
		T	Test
		C	Copy of Certificates
		P	Presentation
		G	Group Assessment
	Rank	**E**	Essential
		D	Desirable