TECIS804401

Manage the deployment of artificial intelligence solutions

Overview

This standard identifies the competences you need to manage the deployment of artificial intelligence (AI) solutions in order to operationalise analytical models.

You will be required to implement and monitor the performance of analytical models in line with governance procedures. You will be expected to work to instructions, alone or in conjunction with others, taking personal responsibility for your own actions, and for the quality and accuracy of the work that you carry out.

Your underpinning knowledge will provide an understanding of artificial intelligence solutions deployment and the tools and techniques required to support model deployment and monitoring. You will have an understanding of the artificial intelligence solutions being developed and implemented at an adequate depth to provide a sound basis for carrying out artificial intelligence activities to meet organisational needs.

This activity can be increasingly found in any sector or organisation and in particular those associated with the analyses of high-volume or complex data sets using advanced computational methods. It is likely to be undertaken by people working as AI Data Specialists, AI Data Technologists, Data Analysts, Data Scientists or AI Data Engineers etc.

Performance criteria

You must be able to:

1. identify business problems that can be solved by artificial intelligence solutions
2. gather, review and document requirements for the proposed artificial intelligence business solutions in line with organisational standards
3. plan and initiate artificial intelligence projects in order that they will deliver benefits within required timescales
4. deploy analytical models into organisational processes in line with policies and procedures
5. create policies for monitoring model performance to meet required aims
6. select and apply model monitoring tools and methods to provide required status updates
7. maintain model solutions to ensure they remain effective and deliver valid results
8. implement best practice model governance methods to manage model veracity
9. implement data quality assessment and remediation to maintain data accuracy
10. implement best practice data governance techniques to maintain model input variable transparency
11. perform model retraining to maintain optimal model performance
12. raise awareness internally of artificial intelligence model status and benefits to the organisation
13. operate in accordance with the regulatory, legal, ethical and governance standards when working with artificial intelligence model solutions

Knowledge and understanding

You need to know and understand:

1. how to integrate artificial intelligence models successfully into existing organisational systems
2. how to design, develop and deploy effective artificial intelligence model solutions
3. the model validation techniques that can be applied to confirm model effectiveness
4. how to define model governance policies and apply them to manage model parameters over time
5. the different applications for artificial intelligence in business and society
6. the ethical implications of artificial intelligence on business and society
7. the legal, ethical, professional and regulatory frameworks which affect the development and implementation of artificial intelligence solutions
8. the sources of error and bias that can arise in artificial intelligence models and how they may affect solution outcomes
9. how to evaluate artificial intelligence solutions via analysis of test data and results from research, feasibility, acceptance and usability testing
10. the organisational policies and procedures that relate to the implementation of artificial intelligence solutions
11. the principles used to manage the design, development and deployment of new artificial intelligence products within the organisation
12. the programming languages, tools and techniques applicable to artificial intelligence
13. the use of performance and accuracy metrics for model validation in artificial intelligence projects
14. how to communicate artificial intelligence concepts and present these in a manner appropriate to diverse audiences

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Developed by	ODAG
Version Number	1
Date Approved	April 2020
Indicative Review Date	March 2023
Validity	Current
Status	Original
Originating Organisation	ODAG Consultants Ltd
Original URN	TECIS804401
Relevant Occupations	Data Operations; Software Development
Suite	IT(Data Science)
Keywords	Artificial intelligence, data science