CAD-IT IoT Centre

Test – Machine Learning Application Engineer

1. The data Q1.csv contains the two temperature and two vibration sensors data for two chiller pumps with a column of to indicate the condition of normal or fault (0 indicating normal and 1 indicating fault).
    a. Please explore and provide your insights on this dataset.
    b. Train a classification model to classify whether the pump is in normal or faulty condition based on the temperature and vibration data.
    c. *(Bonus question) Build a simple application to enter the two temperature and two vibration sensors data for the two chiller pumps to get the predicted output from the model.*

2. For the 'Q2.pdf'
    a. Develop a simple application which extract the 'Description', 'Possible Root cause' and the page number as three columns to store into a database or a CSV file.

3. For the 'Q3, each of the sentence is labeled with one of the following categories based on the content of the articles:

Category	Label Name	Description
Aim	AIMX	The specific research goal of the paper
Own	OWNX	The author's own work, e.g. methods, results, conclusions
Contrast	CONT	Contrast, comparison or critique of past work
Basis	BASE	Past work that provides the basis for the work in the article
Misc	MISC	Any other sentences

    a. Train a model to classify the sentences for all the text in 'Q3' folder. *(You may find the actual label name for the text in the data, bear in mind that the accuracy is not important, but your methodology to handle text data is to be tested in this question)*

Note:
You will be given 3 days to work on this from the day email is received and confirmed by replying to the email. After all the questions are completed, please send back the insights and code in *zip format* or code by using GitHub. All the best!