L03 ITAI1371 Reflective Journal

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From this particular module, I was able to learn about variations in machine learning and how it allows computers to learn from data. Its strengths include that I can now understand supervised learning is used for data with labels, while unsupervised and reinforcement learn by looking for patterns and with rewards/punishments. Supervised machine learning was easier for me to comprehend because it made more sense to me, but it was hard for me to fully grasp other variations.

During this Wine Classification assignment, I struggled with code comprehension, especially relating to Logistic Regression. I did not understand it clearly, and this made it even more challenging for me to comprehend the logic in this lab. I could easily execute it and identify the outcome, but I did not understand why it made a particular prediction. At times, it used complex mathematical concepts that made it harder for me to grasp.

I believe that this lab demonstrated for me the relevance of data cleaning/preparation. Before actually training a model on data, it is necessary to eliminate missing values, normalize attributes, and prepare everything for training. I now see that if this process is not done properly, regardless of how sophisticated a model is, performance will actually decrease because of poorly cleaned data.

If I had more time, I would have liked to delve deeper into Logistic Regression and other models so I could see exactly how they work on the inside. I believe this would have helped me feel more confident with future projects. I would have liked to work with more visualization examples because I learn best by watching what is happening.

Going forward, I would like to use my skills gained in healthcare. Possibly, machine learning might allow a doctor to identify illnesses earlier or process patient information quicker. Of course, I have much to learn about this subject. I believe it might, however, prove beneficial.

Firstly, I found this particular module both interesting and challenging. I found it interesting to learn about the concepts, but I found it challenging to grasp the mathematical concepts involved in Logistic Regression.