Week 1 Pass Task – Damon Vizl – S223545885

Summary

- We covered an overview of machine learning, the different 'disciplines' of machine learning (supervised learning, unsupervised learning and reinforcement learning)
- We highlighted some of the basic linear algebra maths required as a foundation for machine learning
- We discussed some maths to determine the distance between data points. This can be useful when determining whether a new data point belongs to a cluster in unsupervised learning or whether it falls above or below a function line in supervised learning.
- In the workshop we covered setting up python, including some of it's popular libraries such as numpy and pandas.
- We then covered some matrix manipulation possible with these libraries in python.

Reading List and Knowledge Reflection

In order to strengthen my understanding of these topics I sought out additional resources including:

- The khan academy – some really helpful videos in understanding the maths surrounding these topics
- 3Blue1Brown videos – despite having covered some of this linear algebra before including eigenvectors and eigenvalues I always just thought of them as tools for finding information about matrices but looking at them as concepts was eye opening
- PatrickJMT YouTube videos – again more information on linear algebra
- Machine Learning Guide Podcast – not as directly associated with this module but I've found Tyler Renelle's audio podcast to be very interesting and helpful for understanding the overarching concepts of ML. I will continue to listen to this podcast while driving to work
- I am new to Python so I have also been taking a course on Mammoth Interactive on the basics of python and that has been very helpful too.

Quiz 1 results