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CS1030

**Data Tools**

This module discusses a very important Idea about how different datas are stored in many ways and how we can analyze a given data. In my progress of reading this module, I have learned about how we can analyze datas using many statistics such as evaluating the maximum and minimum functions from a given data table, evaluating the total number of information we want to analyze from the data set, and many more. By using the information, we get from the data set we can easily interpret what the given numbers of sets in data are trying to explain. I also learned that datas can also be presented in graphs and it is very easy to evaluate datas that are presented in graphs than tables because they are easy to visualize. While my learning process, the module was clear.

**Big Data**

This module covers where big datas are coming from and some of the challenges of big datas. I didn’t know that the total digital data is this big (zettabytes) but this module makes things clear to me that there are a large number of data stored out there. I learned that big data is collected from each and every one of us such as from our hospital records, crime records, and many more. I also learned that there is a specific place in which datas is stored and it is a very big area(data center) within a dozen of hard drives and they are connected with a big wire system. I understand that the biggest challenge of big data is storage. And a large data set takes longer to become processed and from this module I understand that in order to solve this problem and to save time, the best solution is to distribute it to different machines. The last thing I have learned from this module is the responsible use of data , which includes some questions such as when the data are collected from people do they consider ethics like is our privacy being respected, and many more.

**Bias in machine learning**

In this module, I learned how machines learn to perform an action. The three main types of machine learning are reinforcement, unsupervised, and supervised machine learning. All of these methods help machines to perform certain tasks through training. I have never heard of neural networks before but this module helps me to understand neural networks. It’s amazing that it is similar to how our brains work. The accuracy of machine learning depends on how it was trained. In my progress of reading this module, I understand that some of the bias which is created by machine is because of how they were trained. If they were trained to by making racist and sexist decisions they will perform racist and sexist predictions or decisions. For example from the module example, the machine was trained to predict Black people as a criminal more than white.

My experience taking the unit test was not that good. The modules and the way each topic was explained were so clear and understandable. I was also doing good on the questions found in the middle of the modules. But when it comes to the test, the wording was hard and it was hard for me to understand the questions clearly. The questions were a little tough than the example questions, they were tricky questions. But overall, it was a good experience I got 3 out of 9.