Overview of ML

Machine learning is the use of algorithms which can take in data and then learn from the data and be able to create predictions from the data by finding patterns in the data.

I believe machine learning is just algorithms that can identify patterns in data without outside help besides the algorithm itself. The cleaner or better data and the more amount of that data you can provide to an algorithm is very important. This is because the algorithm can then find better and more accurate patterns in the data. This will mean the accuracy of the machine learning algorithms predictions will be much better.

All of machine learning falls within the bounds of AI. I believe machine learning is an important part of AI.

Two examples of modern machine learning applications are social media recommendations of friends and groups and advertisement recommendations. Companies use machine learning for both of these programs. The reason it would be immpossible to write a traditional program to do this is because you have all this data about what the user searches, buys, who they chat with, and so much more, so you would have to write a program that took all this information and then tried to recommend what to sale the user. However, without the algorithm trying to find a pattern in the data(machine learning), the results would practically be random and have a very low accuracy if any.

The two types of data we have gone over so far are, quantitative and qualitative. Quantitative data is data that is numeric, while qualtiiatve data is data that is categorical. Observations refer to instances and features refer to explanatory lists of data. These are all important parts of machine learning and different types of data are used in different types of machine learning. Both datas are very important in machine learning since machine learning is all about finding patterns in data.

I find machine learning and all of AI to be very interesting. I think it is very interesting that we can write algorithms that are able to make decisions for themselves based on real world data. One reason I want to get a job in the AI industry is because I believe AI is very important right now but will be more important in the future. I would love to learn more about machine learning and AI by doing projects that would help my understanding of it and also do projects that are viable in the real world.