

## Overview of ML

- A. Machine learning is a way for the computer to learn from different data sets by finding patterns and trends among the data and applying them to equations.
- B. Data is the most important aspect of machine learning. Data is where the machine learns via pattern recognition and trends in order to apply certain equations across all different data sets. If a data set is skewed in a specific direction or inaccurate in some way, then the pattern recognition might notice things that aren't there or become inaccurate as you curate the equations and trends used.
- C. AI and Machine learning go hand in hand. AI is all about finding ways for a computer to recognize things on their own and search through data, while machine learning is all about using AI to learn from the data that the AI is searching through. Finding some logic in the data is what machine learning is for, and the AI merely searches through it for patterns.
- D. In today's age, machine learning is used for things like medical diagnosis and facial recognition. Neither of these things can be done traditionally because there is never two types of cancer or two people that look alike, or look exactly like models made for it. Machine learning notices these trends and can see things that don't look right and then ascribe it a certain diagnosis. Or see someone with a hat on and a shadow on their face and still recognize it as a certain person.
- E. Observation is when a machine observes certain behaviors and tries to replicate them as seen, whether successful or not. A feature is a measurement or recording of a certain event that happened. Quantitative data is something that can be measured exactly with a number, and qualitative data is something that can be more ascribed to a category than a number.
- F. For me, I took AI last year and thoroughly enjoyed it and decided that I might want to consider it as a career path or even get a master's in it. This led me to seeing the machine learning course and wanting to take it in order to further myself in the field. I love seeing something that I made come to life on a computer and even better is when something that I created can make its own decisions based on the situation and inputs without further help.