

Overview of ML

- a. Machine learning is a discipline of artificial intelligence enables a machine making predictions or identify patterns in the future based on the data it received from the past with minimal human intervention [1].
- b. ML algorithms are based on the dataset it's trained on. Depending on the accuracy of the prediction. The algorithm repeatedly being train until it can accurately predict the outcome. Because of the algorithm highly depends on the dataset it's trained on. It requires a clean, unbiased dataset to avoid potential issue such as biased algorithm [1].
- c. Artificial Intelligence is a broad area where it focuses on simulating human with machine while Machine learning is a subset of it. ML is more the logic or Algorithm behind each task in AI using broad data [2].
- d. ChatGPT and Personalized recommendations on ecommerce website. In traditional programming, the possible outcome, parameters are known to the program. In ML, the model itself learn as it proceeds with the data it's given then outputs the rule [3]. In another word. Traditional depends on the pre-set decisions and algorithms and lack of ability to expand as information accumulates.
- e. Observation and feature are referring to the row and column of the dataset. Quantitative data is the data that is in numeric. Qualitative data are the data with words. We need each of the feature and observations to start the model then predicts our target value.

- f. Machine learning is one of the most trendy and rising field in computer science and technology. I am fascinated with the idea of having to “predict” an outcome using machine. ChatGPT was the first engine I had personally felt how knowledgeable AI can be and seeing it being able to comprehend and giving answer according to its data model had been inspiring. I see the potential of ML can change the world making impossible to possible combining machines and statistic and I am excited to learn more on the process of how do a model get trained in order to make accurate predications.

Work cited:

- [1] Kanade, Vijay. “What Is Machine Learning? Definition, Types, Applications, and Trends for 2022.” *Spiceworks*, 30 Aug. 2022, www.spiceworks.com/tech/artificial-intelligence/articles/what-is-ml/#:~:text=Machine%20learning%20%28ML%29%20is%20defined%20as%20a%20discipline. Accessed 27 Jan. 2023.
- [2] admin. “How Are AI, Machine Learning, Deep Learning & Data Science Related?” *Corpnce*, 27 Aug. 2019, www.corpnce.com/relationship-ai-ml-dl-ds/. Accessed 27 Jan. 2023.
- [3] Arshad, Shahzaib. “Artificial Intelligence vs Traditional Programming.” *AstroLabs Grow*, 22 Apr. 2021, grow.astrolabs.com/articles/artificial-intelligence-vs-traditional-programming/. Accessed 27 Jan. 2023.

