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**Machine Learning in Trading**

**Abstract**

**Garbage**

Machine Learning, a sub-category of AI, is rapidly growing as a field and it doesn’t look like it will stop.

What is Machine Learning? (2-3 Sentences).

Machine Learning allows computer to learn and extract rules, patterns, and concepts from large amount of data. Using these rules, patterns, and concepts it can label and classify future data into different categories or make predictions. The only catch, is sufficient data must be provided, which is not a problem in modern society. Today, 2.5 exabytes of data are produced daily, so there is no shortage in fuel for the rocket, called Machine Learning. Machine Learning is also fast. Once the system has been trained with sufficient data, it can make predictions within nanoseconds, surpassing human’s speed in decision-making and it most cases it’s much more accurate.

Because of its potential, many fields and companies have begun research. One of these field is Stock Trading. It only makes sense for hedge funds, investors, and traders to invest into Machine Learning, which promises faster and more accurate prediction. However, there has yet to be a widespread use of Machine Learning in Trading. This is largely due to the difficulty of the problem. Despite having a large amount of data, accuracy of studied Machine Learning techniques has not shown great enough results to warrant a switch.

But there is hope. As I’ve mentioned before, Machine Learning is a rapidly growing field and there is heavy investment into Machine Learning techniques for trading. The purpose of this literature review is to summarize, what has been done, what works, what doesn’t, and where we can go further in applying Machine Learning to Trading. In addition, we will review current techniques used in modern day trading and compare its effectiveness with Machine Learning techniques.

Some of the methods of Machine Learning that we will look through are:

1. Decision Trees
2. Neural-Networks
3. K-NN Clustering
4. Sentiment Analysis