CRUDE OIL PRICE PREDICTION

PROBLEM STATEMENT

The crude oil market is known for being volatile, dynamic, and nonlinear. Accurate crude oil price prediction is extremely challenging because of multiple (macro and micro) factors, such as politics, global economic conditions, unexpected events, a company’s financial performance, and so on.

But, all of this also means that there’s a lot of data to find patterns in. So, financial analysts, researchers, and data scientists keep exploring analytics techniques to detect crude oil market trends. This gave rise to the concept of algorithmic trends, which uses automated, pre-programmed trading strategies to execute orders.

SOLUTION

As financial institutions begin to embrace artificial intelligence, machine learning is increasingly utilized to help make trading decisions. Although there is an abundance of crude oil data for machine learning models to train on, a high noise to signal ratio and the multitude of factors that affect crude oil prices are among the several reasons that predicting the market difficult. At the same time, these models don’t need to reach high levels of accuracy because even 60% accuracy can deliver solid returns. One method for predicting stock prices is using a long short-term memory neural network (LSTM) for times series forecasting.

ABSTRACT

Crude oil Price Prediction using machine learning helps you discover the future value of oil and other financial assets traded on an exchange. The entire idea of predicting stock prices is to gain significant profits. Predicting how the crude oil market will perform is a hard task to do. There are other factors involved in the prediction, such as physical and psychological factors, rational and irrational behavior, and so on. All these factors combine to make share prices dynamic and volatile. This makes it very difficult to predict oil prices with high accuracy.