A US based firm uses prediction engine for cryptocurrency forecast and trading

The current market value for cryptocurrencies is estimated to be $589 billion. Even with the occasional wobble, the market is still able to command an average of up to $2 billion worth of trade on a daily basis. The client in addition to its various legal marketing offerings wanted to enhance its profits in the cryptocurrency market using a custom trading engine that can predict the future outcomes. Algoscale through its expertise in predictive analytics developed a engine using custom trading strategies which helped generate daily profits.

The Client

A US based firm with business interests in fintech, marketing, legal solutions and services established in 2009.

The Challenge

Open source trading engines are all over the internet but the need to keep a check on market fluctuations manually and accordingly make investment decisions is time consuming and complex. Because of the frequent movement of currency prices in the market, it was difficult for the client to stay on the top of their investments all the time.Therefore, the client needed an automated prediction engine. Due to rapidly changing paradigm in the cyptocurrency space, any predictive model built may quickly turn obsolete if not handled properly.

The Solution

Algoscale team in close association with the client closed on Bittrex cryptocurrency exchange as the platform for obtaining live trade data feeds. The project involved building a trading engine but instead of using standard technical indicators used by the traders, Predictive Data science modeling based on trade data and order report data was used. The problem statement was to forecast the percentage change in value of the currency pair with respect to certain threshold, with certain confidence level. Price, quantity (volume) and order data (bid & ask) were used as inputs for the model.

In order to build a predictive model, the first step is to train it. Data feeds from last 7 days was used to predict the form using multivariate time-series as an input to LSTM (Long Short Term Memory) network. LSTM network is a part of Deep Learning which is responsible for retaining data for long period of time.

Algoscale's scope was limited to currency pairs having either ETH (Ethereum) or BTC (Bitcoin) as one of the currency on the Bittrex exchange and approximately 165 such currency pairs were identified. For every pair of currency, price average for the particular time intervals and total volume for the particular time window was computed. This trained model worked on some trading strategies developed indigenously by the Algoscale team and accordingly generated profits.

Benefits

As a result of automation from the traditional trading processes, the client's profit increased by 20% and it was also able to save costs in terms of service fees for the open source trading engines.