

Predicting Pump & Dumps in Cryptocurrency

1. What is the problem you want to solve?

In the past year there has been a growing interest in cryptocurrency and with it the popularity of schemes that exploit new and less educated investors. The Pump & Dump(P&D) is an age old scheme that pumps the price of a cryptocurrency and once the price has peaked the organizers of the P&D sell the overpriced cryptocurrency onto less savvy buyers.

2. Who is your client and why do they care about this problem?

The US Commodities Futures Trading Commission has recently started a bounty program for whistleblower's on information that leads to a successful enforcement action of P&D group organizers. With a predictive algorithm the CFTC can apply better decision making on enforcement action. [Here you can the original CFTC document.](#)

3. What data are you going to use for this? How will you acquire this data?

There are both historical and live data available from numerous cryptocurrency exchange websites and analytical websites. For the purpose of this study, we will be using use historical data and live data from Poloniex Exchange API and Binance Exchange API at the following urls:

<https://poloniex.com/support/api/>

<https://github.com/binance-exchange/binance-official-api-docs/blob/master/rest-api.md>

The data can be accessed through python wrappers of the API.

4. In brief, outline your approach to solving this problem.

We will back test to see what type of traits P&Ds had in the past for the top 200 coins. For simplicity, we will define a P&D as a surge in price of more than 5% followed by a drop in price by a similar margin within a 4 hour timeframe. initially we would like to look

at the problem from a purely technical standpoint where only technical analysis will be applied and not include external variables such as news, fake news and hype.

5. What are your deliverables?

Deliverables will include a model/code for predicting P&Ds, a paper and slide deck.