2018 HackTX Teza AltData Project Proposal

Data

Historical cryptocurrency pricing information

Example sources:
- https://coinmarketcap.com/
- https://www.cryptodatadownload.com/
- https://www.cryptocurrencychart.com/
- https://www.kaggle.com/sudalairajkumar/cryptocurrencypricehistory/home
- https://medium.com/@spreadstreet/pull-historical-cryptocurrency-data-into-google-sheets-in-under-2-minutes-e6f26d2075f

Historical cryptocurrency news

Example sources:
- https://seekingalpha.com/market-news/crypto
- https://cointelegraph.com/

Project 1: Detect manipulative trading practices

Find historical evidence

Mine historical data to find evidence of manipulative trading practices
1. E.g., "pump and dump"
2. E.g., using order book data, find evidence of "spoofing"

Develop a detector

Can manipulative trading practices be identified without future-peeking?

Project 2: News-based cryptocurrency trading

News analytics

Develop techniques to extract quantitative signals from news.

Examples include:
- Creating lists of positive/negative sentiment words
- Determining whether an article is relevant to a cryptocurrency
- Modeling article topics

News-based trading

Can you use the analytics developed to predict
- Returns?
- Volatility?
- Volume?

References

On manipulative trading practices

- https://www.wsj.com/graphics/cryptocurrency-schemes-generate-big-coin/
- https://www.wsj.com/articles/the-bots-manipulating-bitcoins-price-1538481600
- https://www.forbes.com/sites/francescoppola/2018/06/01/cryptocurrency-trader-says-the-market-is-manipulated/#622d3af525cd
- https://bitcoinexchangeguide.com/cryptocurrency-spoof-trading/
- https://hackernoon.com/meet-spoofy-how-a-single-entity-dominates-the-price-of-bitcoin-39c711d28eb4
- https://medium.com/s/the-crypto-collection/a-glimpse-into-the-dark-underbelly-of-cryptocurrency-markets-d1690b761eaf

News analytics

- The Handbook of News Analytics in Finance
- Example of news analytics: Thomson Reuters News Analytics

General

- 2017 Global Cryptocurrency Benchmarking Study