

Proposal

Members

- Haruki Moriguchi (# 260665818) : *haruki.moriguchi@mail.mcgill.ca*
- Edwin H. Ng (# 260732345) : *edwin.ng@mail.mcgill.ca*

Sentiment Analysis on News and Social Media for Bitcoin Price Prediction

In recent years, Bitcoin has gained enormous popularity. After receiving many media coverages in 2017, the price went up drastically from USD 1,000 to USD 20,000, from which it has since gone down. In fact, this sudden increase in price is not surprising since behavioral economics states that there are correlation between the public sentiment and the market, in addition to news information. Fortunately, with the advent of social media, the information about public feelings has become abundant, where Twitter has received a lot of attention from researchers. The aim of this project is thus to test the hypothesis that public sentiment does indeed affect the financial market, where we will look particularly for in case with the Bitcoin prices. The plan of the project is as followed. We will conduct sentiment analysis on both news and tweets from Twitter in order to better reflect the public opinion.

1. BRAINSTORMING
2. **Textual representation**
3. instead of the traditional N-grams
4. word2vec textual representation for twitter
5. LDA for finding topics in : news where is article is assigned a number of topics
6. Sentiment analysis on those: Try different model (Neural ?)
7. compare with the stock price