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| Paper | yy | method | Tweets | Twitterfeatures | BitcoinFeatures | Output | acc/loss | Comments |
| KryptoOracle | 2019 | Decision trees  **XGBoost** | #BTC#Bitcoin;  30 days 25000twts per day; English filtering; removing media # links + REMOVING BOTS based on followers | Twitter Sentiment **vader** with influential persons weights;  Tweet volume | Previous price; previousClosePrice; MeanAvgClosePrice;MovingAvgScores  Per Minute | BTC price of next minute | Visual on graph  No Explicit numbers | Not neural |
| Predicting Fluctuations in Cryptocurrencies' Price using users' Comments and Real-time Prices | 2018 | Bi-directional LSTM | #Bitcoin#CoinListingNews, #cryptocurrency#cryptopumpdump#exchangehacked; per minute? **Feb 2016 🡪Dec 2017** | **Twitter** sentiment (technique not described) | Several price related features,  Several bitcoin related features  10 sec and 10 minute interval | Price Next day? | PR = 60% Acc = 50% | Ill Defined |
| Recurrent Neural Network Based Bitcoin Price  Prediction by Twitter Sentiment Analysis | Oct. 2018 | RNN | @BTCTN@cryptocurrency@CryptoYoda1338(@BitcoinMagazine@BitcoinForums@coindesk@rogerkver  1 Jan ‘15 🡪 31 dec ’17  1 Jan ‘18 🡪 30 June ‘18 | **Twitter** sentiment score from accounts | Normalized price from Coinmarketcap | Price prediction next day | Acc 77.62%. | Own sentiment analyzer implemented |
| Short-Term Bitcoin Price Fluctuation Prediction  Using Social Media and Web Search Data | Aug. 2019 | Polynomial regression | #bitcoin  Filtered on English  16 Dec 17 🡪 20 Feb 19  7.5 mil twts  Filter #,capitals,.. | Twitter sentiment VADER;  Tweet Volume;  **Google** search patterns google Trend Data(SVI); | Weighted Price and Volume of Transactions per day (bitcoincharts)  9 April 14 🡪 07 January 19 per | Price prediction | Google: acc 77.01%  Twitter vol: acc 66.66% | Cocnlusion:  **Sentiment not good**  **Neural not good** |
| Deep Learning Approach to Determine the Impact of Socio Economic Factors on Bitcoin Price Prediction | 2019 | CNN & LSTM & GRU | Twitter sentiment;  Prediction is 3 months | Sentiment, number of followers, likes and the number of tweets in a time range. | Bitcoin price per 5 minute mapped to per day;  Gold price per day (datahub.io) | Bitcoin price | RMSE 47 | The features are tested **individually**  LSTM BEST with bitcoin and twitter sentiment |
| Forecasting Bitcoin Price Fluctuation by Twitter  Sentiment Analysis | 2020 | Random Forest Regression | 60 day tweets  92550 per minute  12 March ‘18 🡪 12 May  filtered | Vader sentiment score | Bitcoin price from "BITSTAMP,"  "COINBASE," "ITBIT," "KRAKEN" summed and avg;  Close Price; Opening Price; Closing Price; High price; Low price; | Bitcoin price per minute | 43.83% error  minimum 21.84% error accuracy |  |
| CNN-based multivariate data analysis for bitcoin trend prediction | 2020 | 1D CNN | “Bitcoin”  28 April ‘13 🡪 15 Feb 2020 | twitter sentiment + volume | 10 bitcoin price features  4 blockchain based features | **average bitcoin trend in the next k days.** | ACC = 75% | Too much data,  Not sure if I can handle this  Only 2 output outcomes |
| Forecasting the Early Market Movement in Bitcoin Using Twitter’s Sentiment Analysis: An Ensemblebased Prediction Model | 2021 | ENSEMBLE various instances of the XGBoost classifiers | Stemmming  May 22, ‘20 🡪 June 22, ‘20  Keywords: bitcoin, Bitcoin, bitcoins, Bitcoins, BTC, XBT, satoshi, #bitcoin, #bitcoins, #XBT, #BTC, $XBT, $BTC | Vader Sentiment Score followers, likes, and retweets associated with each tweet. | closing price of Bitcoin, the final sentiment score, and the moving average of the last 100 data points |  |  | ILL defined |

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| Forecasting the Early Market Movement in Bitcoin Using Twitter’s Sentiment Analysis: An Ensemblebased Prediction Model | 2021 |  | Stemmming  May 22, ‘20 🡪 June 22, ‘20  Keywords: bitcoin, Bitcoin, bitcoins, Bitcoins, BTC, XBT, satoshi, #bitcoin, #bitcoins, #XBT, #BTC, $XBT, $BTC | Vader Sentiment Score |  |  |  |  |