



Bitcoin

Price Prediction & Sentiment Tool

Presented by Mark Benhaim



OVERVIEW &

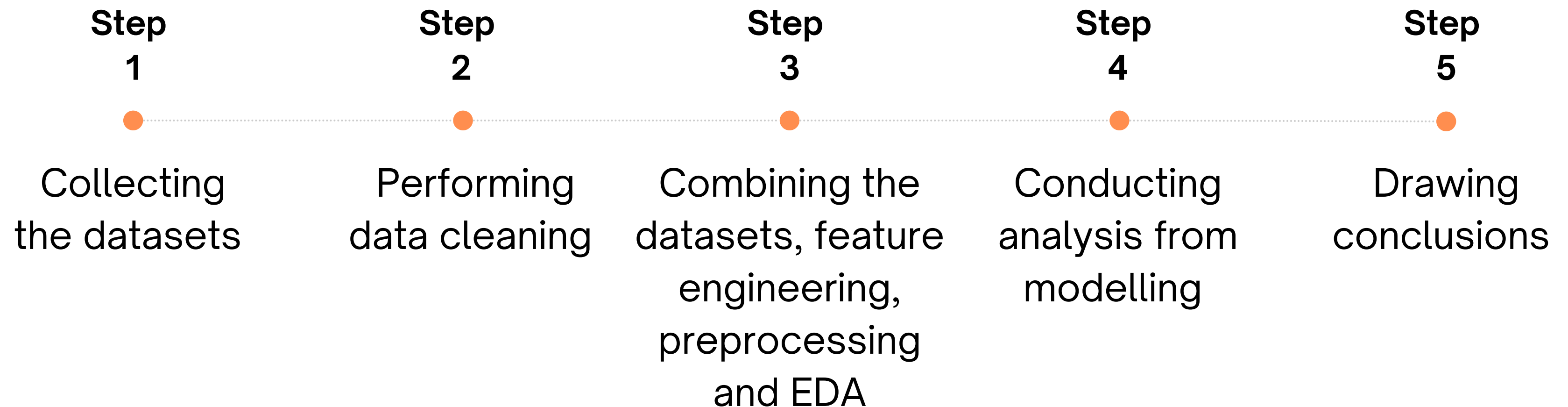
PROBLEM STATEMENT

Project Focus: This project aims to forecast the price of Bitcoin and analyze sentiment related to Bitcoin on Twitter using machine learning techniques. The project utilizes historical Bitcoin price data, Google search trends for Bitcoin, and a large collection of tweets about Bitcoin to build predictive models.





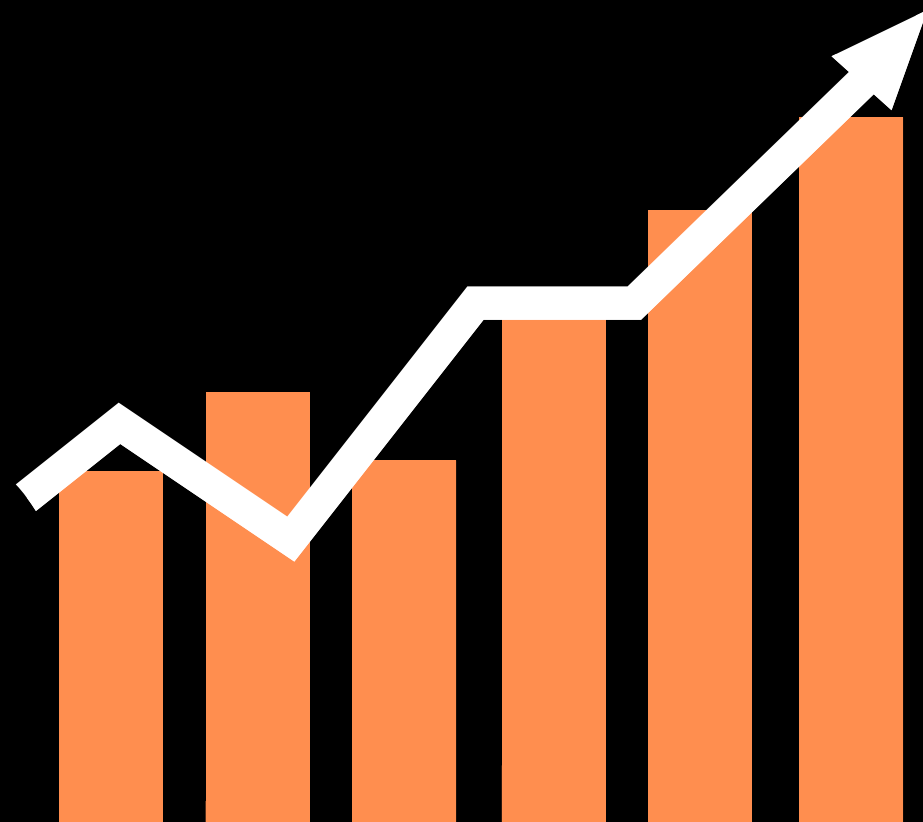
PROPOSED VISION FOR TACKLING THE PROBLEM





ESTIMATE IMPACT OF SOLUTION

The insights gained can be valuable for traders, investors, and researchers interested in understanding the influence of public sentiment on cryptocurrency prices.





DATASET

AFTER CLEANING

(+ Google Trends)

	Colmn Name	Data Type	Description
0	Time	String	Time in days
1	Open	Float	Open price of bitcoin
2	Percent change in price (close/open)	Float	The percent change of the open price to the cl...
3	Close	Float	Close price of bitcoin
4	BTC Dominance Open	Float	The opening percent marketshare of Bitcoin
5	Percent change in dominance (close/open)	Float	The percent change in Bitcoin marketshare each...
6	BTC Dominance Close	Float	The closing percent marketshare of Bitcoin
7	Volume	Float	The total bitcoin volume per day on the exchan...
8	RSI (relative strength index)	Float	The Relative Strength Index (RSI) is a well ve...
9	HV (historical volatility)	Float	Historical volatility is a statistical measure...
10	Cleantext	String	Text of each individual tweet
11	bitcoin_tweetcount	Integer	Total tweets including the keyword bitcoin per...
12	btc_tweetcount	Integer	Total tweets including the keyword btc per day
13	crypto_tweetcount	Integer	Total tweets including the keyword crypto per day
14	cryptocurrency_tweetcount	Integer	Total tweets including the keyword cryptocurre...
15	project_tweetcount	Integer	Total tweets including the keyword project per...
16	total count_tweetcount	Integer	Total tweets per day



DATA QUALITY CONCERNS



Dataset timeline

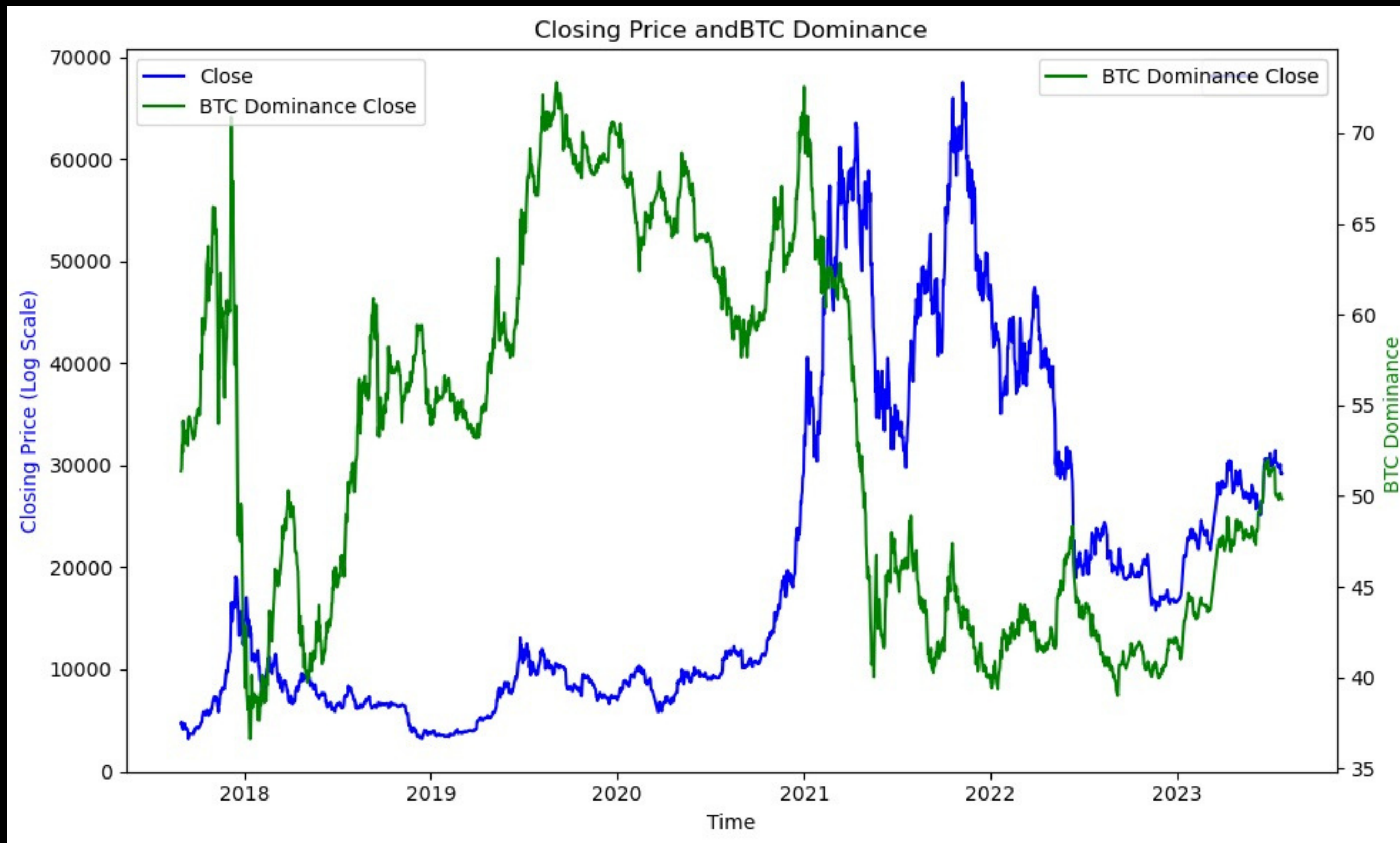


Only on monthly timeframe



DATA VISUALIZATIONS

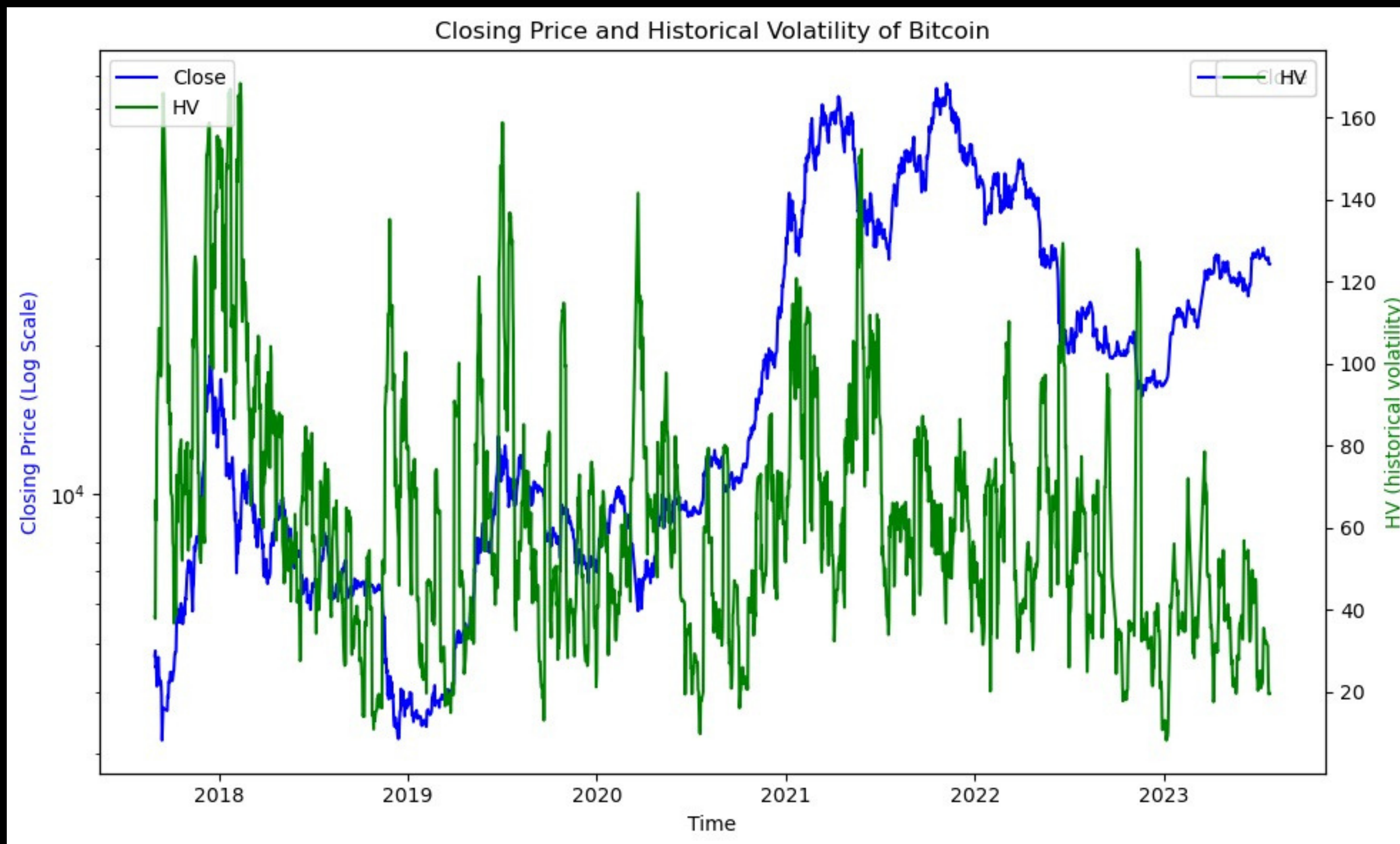
CLOSING PRICE & BTC DOMINANCE





DATA VISUALIZATIONS

CLOSING PRICE & HISTORICAL VOLATILITY OF BITCOIN

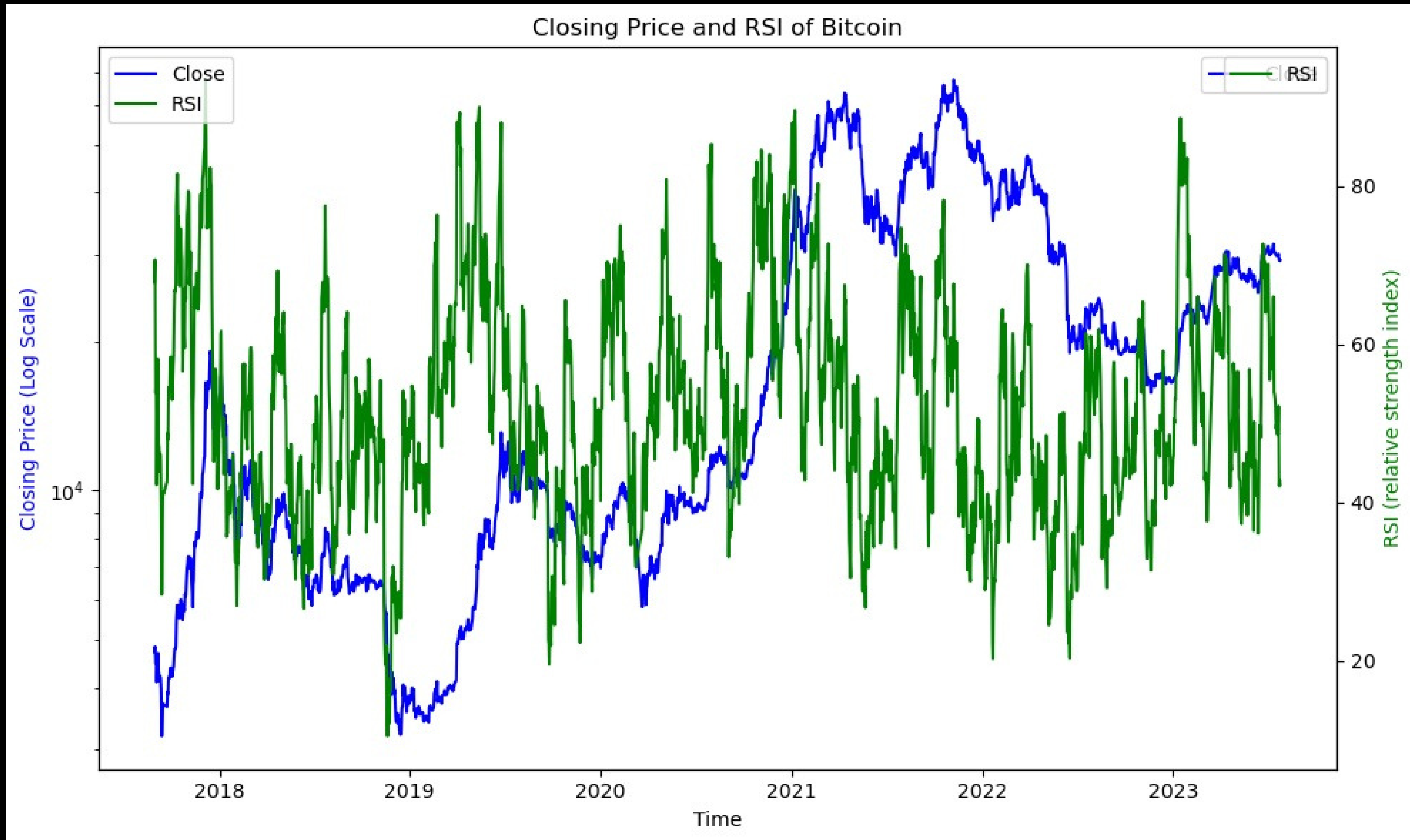




DATA VISUALIZATIONS

3/7

CLOSING PRICE & RSI OF BITCOIN

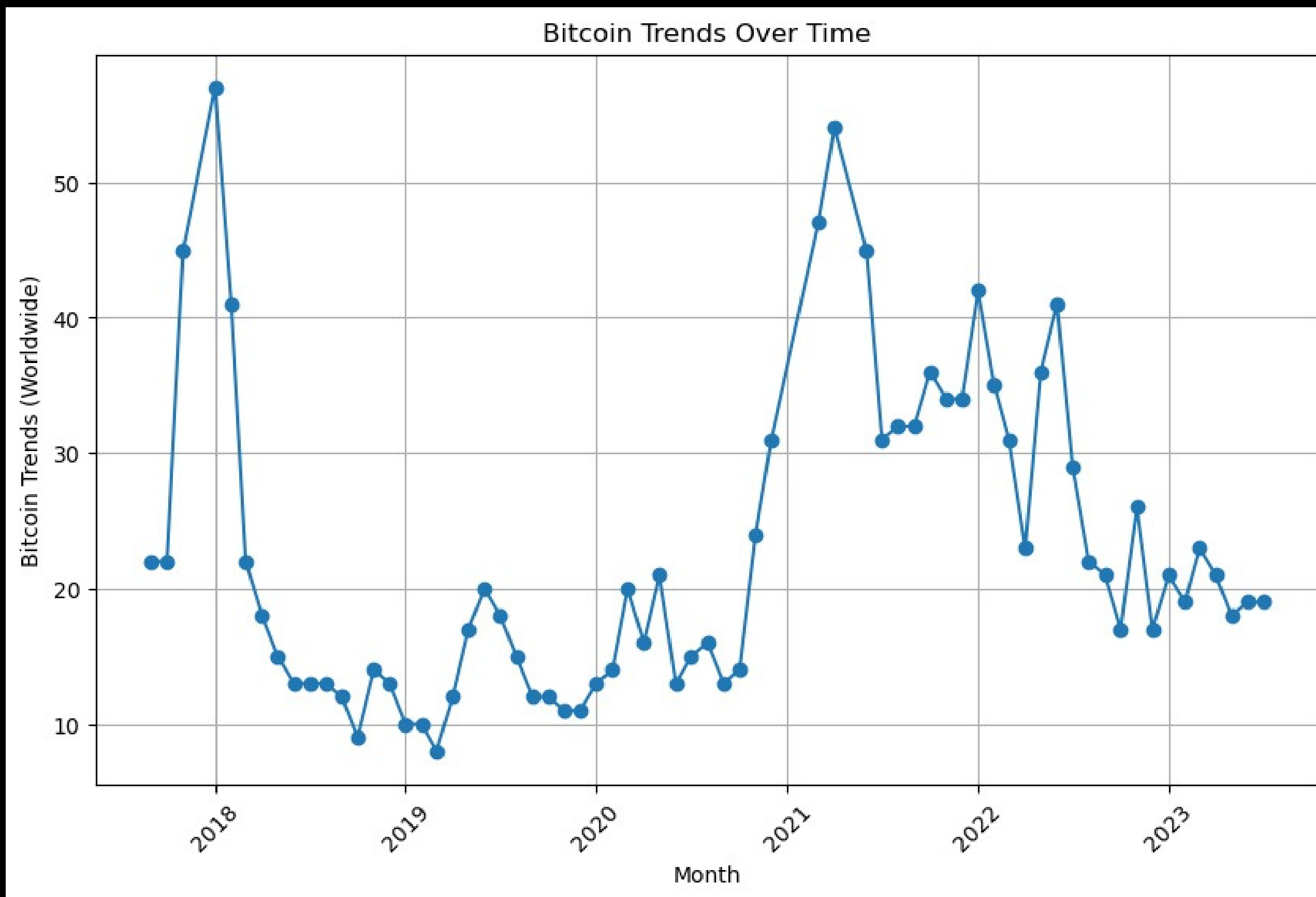




DATA VISUALIZATIONS

4/7

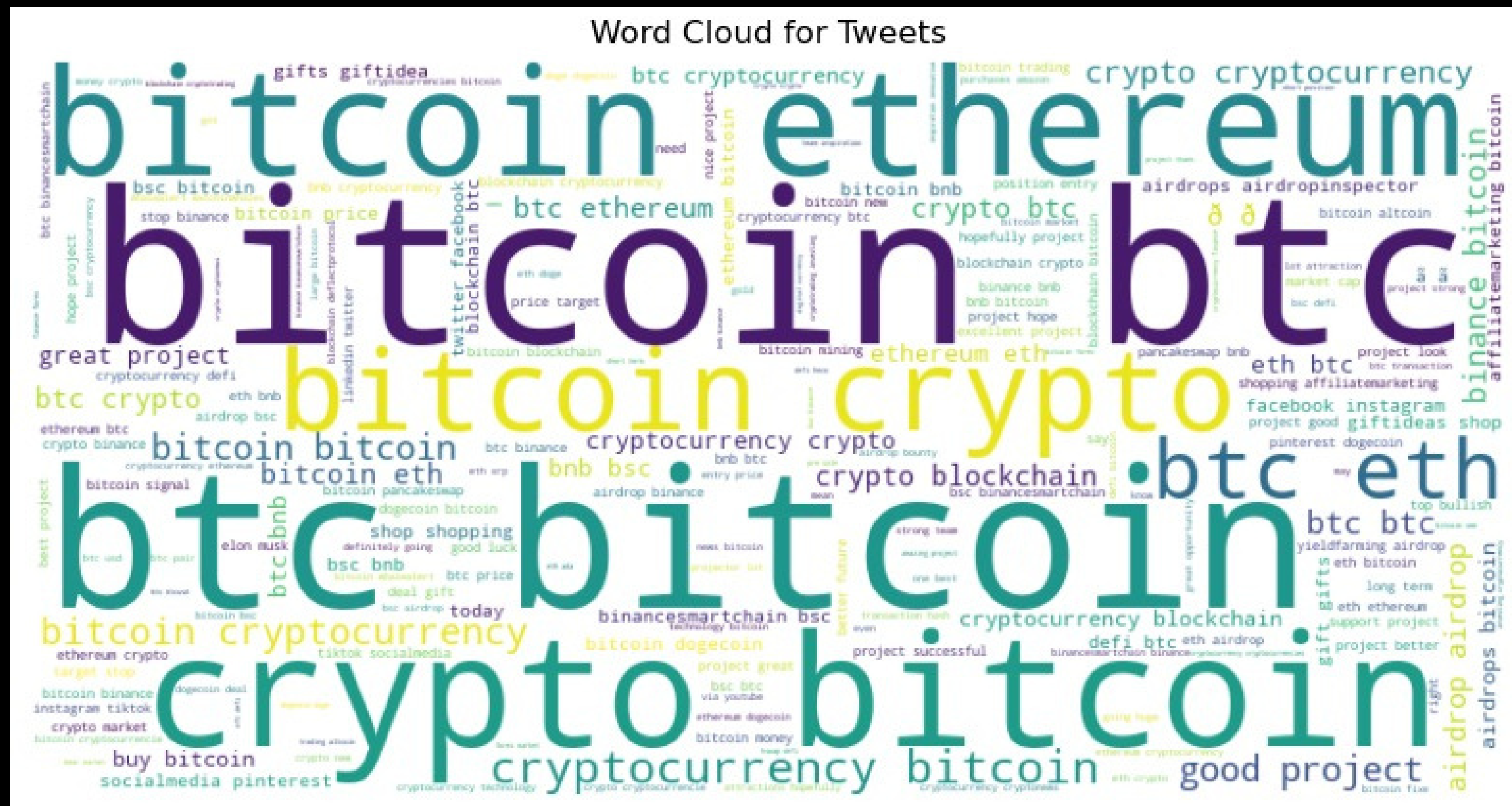
GOOGLE TRENDS





DATA VISUALIZATIONS

TWEET WORD CLOUD

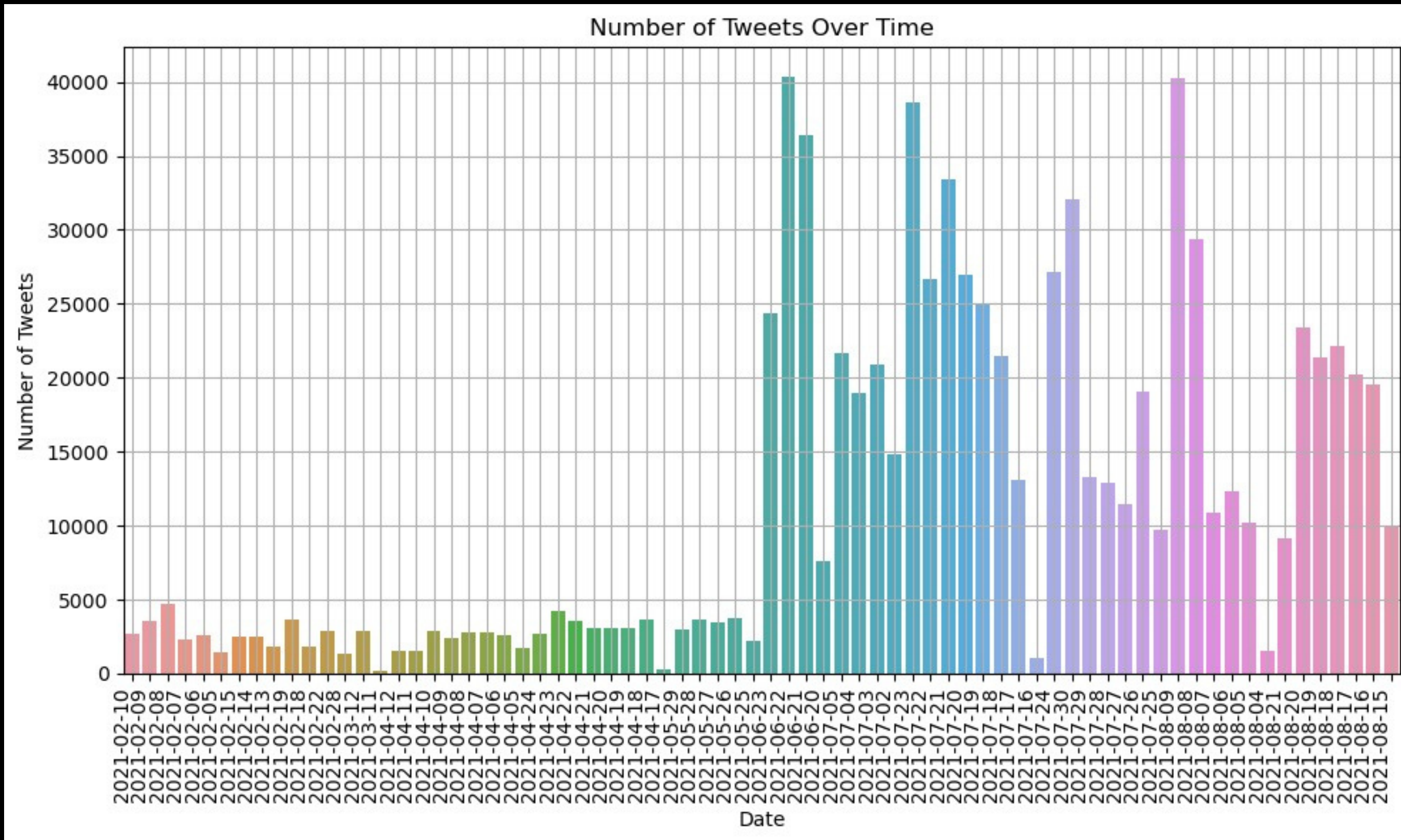




DATA VISUALIZATIONS

6/7

NUMBER OF TWEETS OVER TIME





DATA VISUALIZATIONS

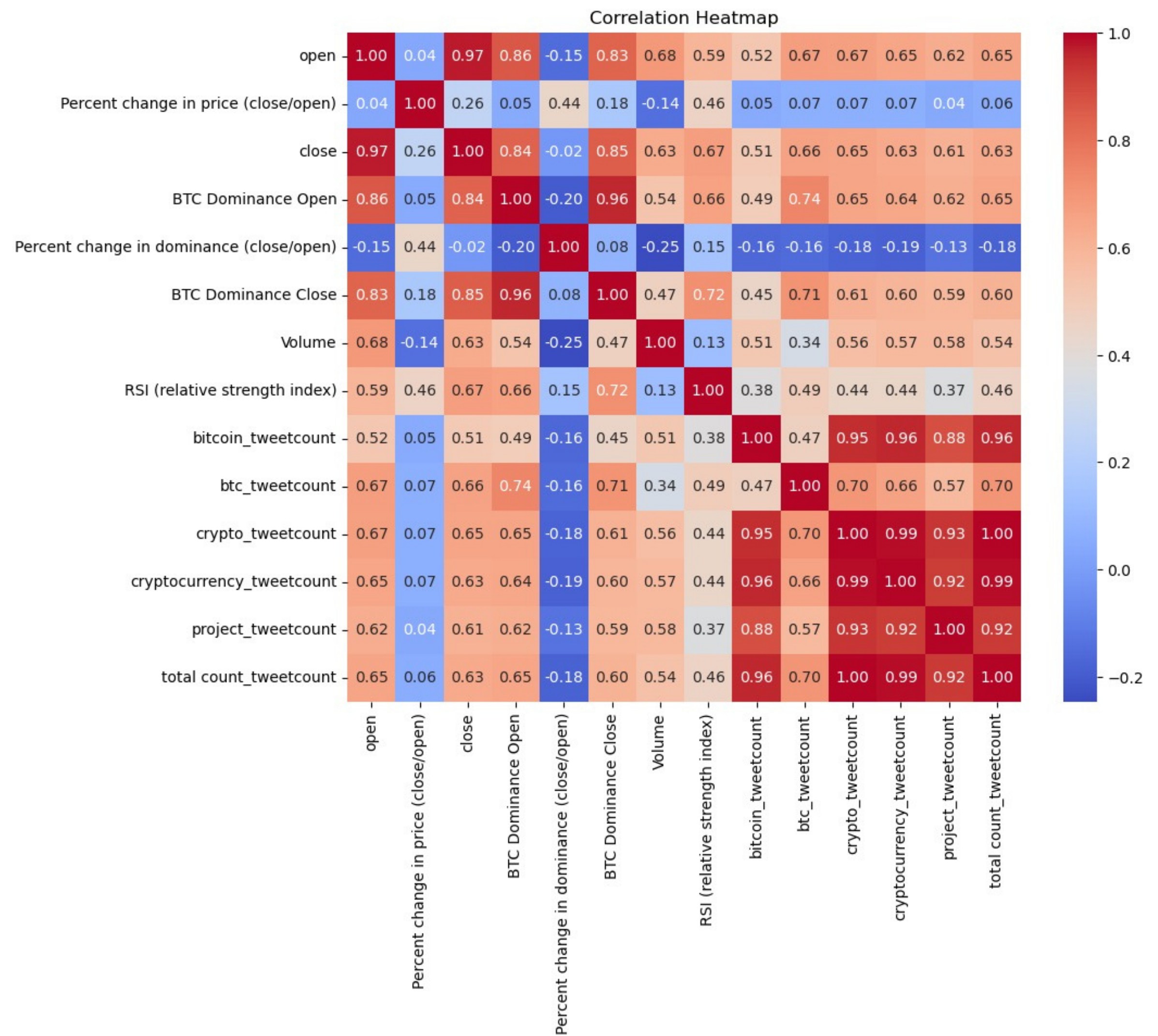
7/7

TWEET WORD CLOUD





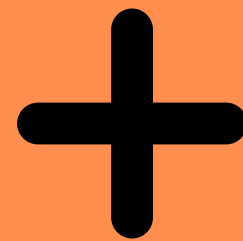
HEATMAP OF DATASET





NEXT STEPS

- Time-Series Analysis
- Building predictive models



- Conducting sentiment analysis