

# Bitcoin Price Prediction

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T5 Data Science Project





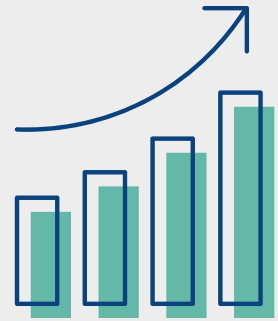
# Problem?

When to buy / sell Bitcoin?

# Solution

This project aimed to create a prediction model based on Bitcoin historical data that will help long-term traders with what is likely to happen to the Bitcoin price?





## What is Bitcoin?

Bitcoin (₿) is a decentralized digital currency, without a central bank or single administrator, that can be sent from user to user on the peer-to-peer bitcoin network without the need for intermediaries.

Transactions are verified by network nodes through cryptography and recorded in a public distributed ledger called a blockchain.

The cryptocurrency was invented in 2008 by an unknown person or group of people using the name Satoshi Nakamoto.

The currency began to use in 2009 when its implementation was released as open-source software

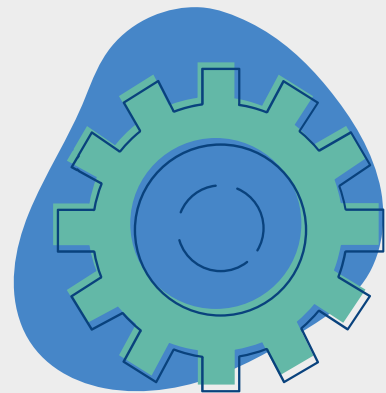


## Dataset

The dataset is provided in .csv format. It contains 4857377 Rows, 8 Column

The dataset contains bitcoin exchanges for the time period of Jan 2012 to December March 2021, with a minute to minute updates of OHLC (Open, High, Low, Close), Volume in BTC, and indicated currency and weighted bitcoin price. Timestamps are in Unix time.

## Tools



There are tools that will be used to achieve the goal of this study, such as: Python Matplotlib, pandas, numpy.

The work will be done through the Jupyter notebook.

# Data Samples

]:

	Timestamp	Open	High	Low	Close	Volume_(BTC)	Volume_(Currency)	Weighted_Price
0	1325317920	4.39	4.39	4.39	4.39	0.455581	2.000000	4.390000
478	1325346600	4.39	4.39	4.39	4.39	48.000000	210.720000	4.390000
547	1325350740	4.50	4.57	4.50	4.57	37.862297	171.380338	4.526411
548	1325350800	4.58	4.58	4.58	4.58	9.000000	41.220000	4.580000
1224	1325391360	4.58	4.58	4.58	4.58	1.502000	6.879160	4.580000
...	...	...	...	...	...	...	...	...
4857372	1617148560	58714.31	58714.31	58686.00	58686.00	1.384487	81259.372187	58692.753339
4857373	1617148620	58683.97	58693.43	58683.97	58685.81	7.294848	428158.146640	58693.226508
4857374	1617148680	58693.43	58723.84	58693.43	58723.84	1.705682	100117.070370	58696.198496
4857375	1617148740	58742.18	58770.38	58742.18	58760.59	0.720415	42332.958633	58761.866202
4857376	1617148800	58767.75	58778.18	58755.97	58778.18	2.712831	159417.751000	58764.349363

3613769 rows × 8 columns