R Markdown Output

Last run on: 2021-06-12 06:12:20
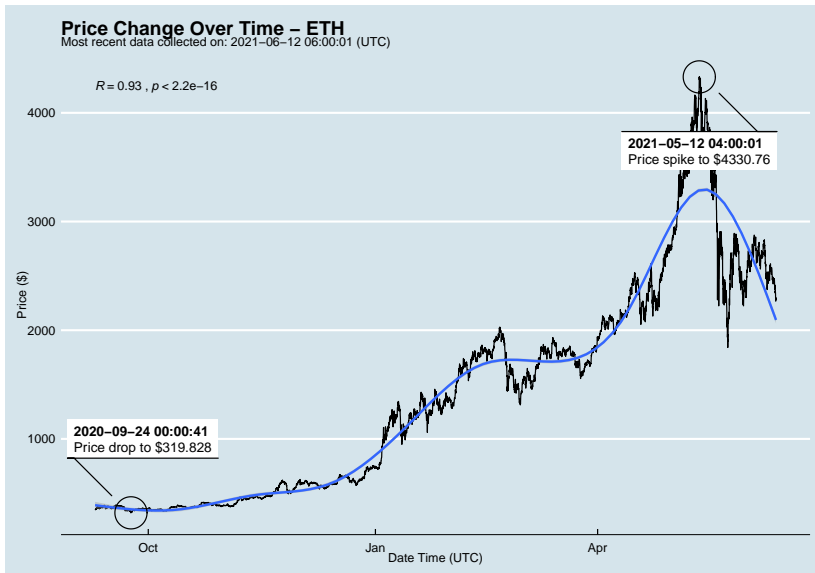
2021-06-12 06:12:20

Overview

This document has code embedded throughout. In the next section we will create a visualization using the already loaded dataset eth_data:

```
datatable(eth_data)
```

Price Chart - Ethereum

Price Change Over Time – ETH
Most recent data collected on: 2021–06–12 06:00:01 (UTC)

$R = 0.93$, $p < 2.2e{-}16$

2021−05−12 04:00:01
Price spike to $4330.76

2020−09−24 00:00:41
Price drop to $319.828

Price ($)

Oct | Jan | Apr

Date Time (UTC)

Python Code Example

```python
import pandas as pd
# Create the Python object from R
df = r.cryptodata
# Show the new Python dataframe
df
```

```
##           pair symbol  ask_1_price        date_time_utc
## 0       ETHUSD    ETH     2290.217  2021-06-12 06:00:01
## 1       BTCUSD    BTC    35163.470  2021-06-12 06:00:00
## 2       ETHUSD    ETH     2283.783  2021-06-12 05:00:01
## 3       BTCUSD    BTC    35245.970  2021-06-12 05:00:00
## 4       ETHUSD    ETH     2300.108  2021-06-12 04:00:01
## ...        ...    ...          ...                  ...
## 13799   BTCUSD    BTC    11972.900  2020-08-10 06:03:50
## 13800   BTCUSD    BTC    11985.890  2020-08-10 05:03:48
## 13801   BTCUSD    BTC    11997.470  2020-08-10 04:32:55
## 13802   BTCUSD    BTC    10686.880                  NaT
## 13803   ETHUSD    ETH      357.844                  NaT
```

One more Python example

The code below creates a new column `price_percentile` that specifies if the price for the row was in the upper or lower 50th percentile of prices (BTC should be upper and ETH lower):

```python
import numpy as np
# Create a new column based on the ask_1_price value:
df['price_percentile'] = np.where(df['ask_1_price'] >
                              np.percentile(df['ask_1_p
                       'upper 50th percentile of price
                       'lower 50th percentile of price
# Show modified dataframe:
df[['symbol', 'ask_1_price', 'price_percentile']]
```

```
##      symbol  ask_1_price                    price_percenti
## 0       ETH     2290.217  lower 50th percentile of pric
## 1       BTC    35163.470  upper 50th percentile of pric
## 2       ETH     2283.783  lower 50th percentile of pric
## 3       BTC    35245.970  upper 50th percentile of pric
## 4       ETH     2300.108  lower 50th percentile of pric
```