R Markdown Output

Last run on: 2021-06-23 06:12:42
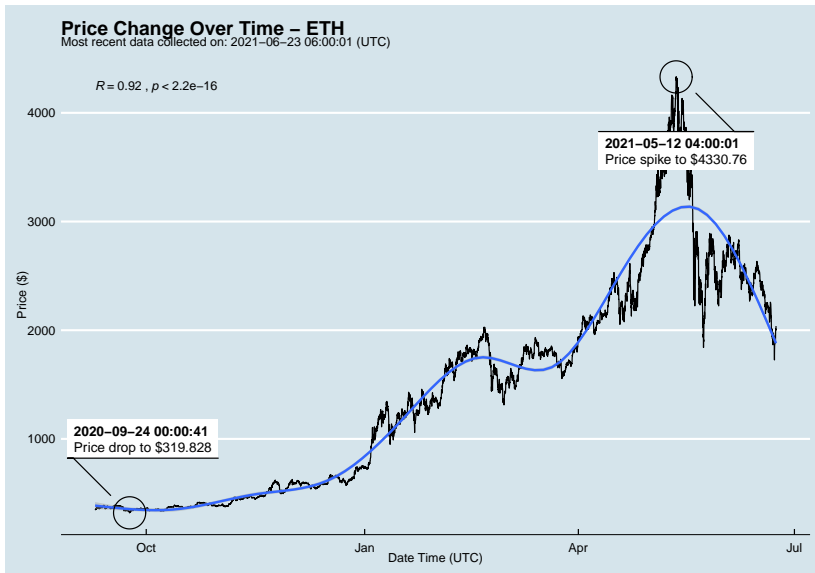
2021-06-23 06:12:42

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: 2021–06–23 06:00:01 (UTC)

$R = 0.92$, $p < 2.2e{-}16$

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

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

Price ($)

Date Time (UTC)

Oct   Jan   Apr   Jul

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     2038.504  2021-06-23 06:00:01
## 1        BTCUSD    BTC    34306.070  2021-06-23 06:00:00
## 2        BTCUSD    BTC    33792.570  2021-06-23 05:00:01
## 3        ETHUSD    ETH     2000.817  2021-06-23 05:00:01
## 4        BTCUSD    BTC    33970.800  2021-06-23 04:00:01
## ...         ...    ...          ...                  ...
## 14327    BTCUSD    BTC    11972.900  2020-08-10 06:03:50
## 14328    BTCUSD    BTC    11985.890  2020-08-10 05:03:48
## 14329    BTCUSD    BTC    11997.470  2020-08-10 04:32:55
## 14330    BTCUSD    BTC    10686.880                  NaT
## 14331    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     2038.504  lower 50th percentile of pric
## 1       BTC    34306.070  upper 50th percentile of pric
## 2       BTC    33792.570  upper 50th percentile of pric
## 3       ETH     2000.817  lower 50th percentile of pric
## 4       BTC    33970.800  upper 50th percentile of pric
```