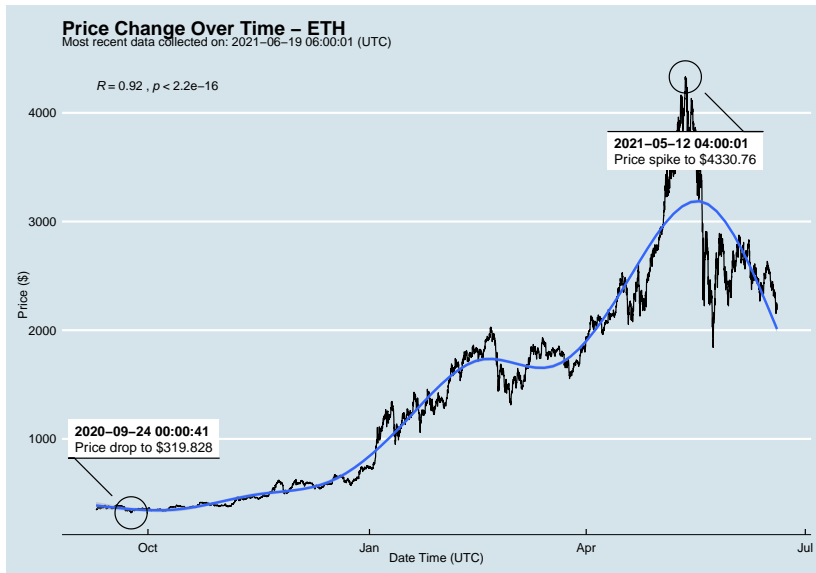# R Markdown Output

Last run on: 2021-06-19 06:12:14

2021-06-19 06:12:14

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: 2021–06–19 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     2238.340  2021-06-19 06:00:01
## 1         BTCUSD    BTC    35532.730  2021-06-19 06:00:00
## 2         ETHUSD    ETH     2199.912  2021-06-19 05:00:01
## 3         BTCUSD    BTC    35193.450  2021-06-19 05:00:00
## 4         ETHUSD    ETH     2188.619  2021-06-19 04:00:01
## ...          ...    ...          ...                    ...
## 14135     BTCUSD    BTC    11972.900  2020-08-10 06:03:50
## 14136     BTCUSD    BTC    11985.890  2020-08-10 05:03:48
## 14137     BTCUSD    BTC    11997.470  2020-08-10 04:32:55
## 14138     BTCUSD    BTC    10686.880                    NaT
## 14139     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    2238.340  lower 50th percentile of pric
## 1         BTC   35532.730  upper 50th percentile of pric
## 2         ETH    2199.912  lower 50th percentile of pric
## 3         BTC   35193.450  upper 50th percentile of pric
## 4         ETH    2188.619  lower 50th percentile of pri
```