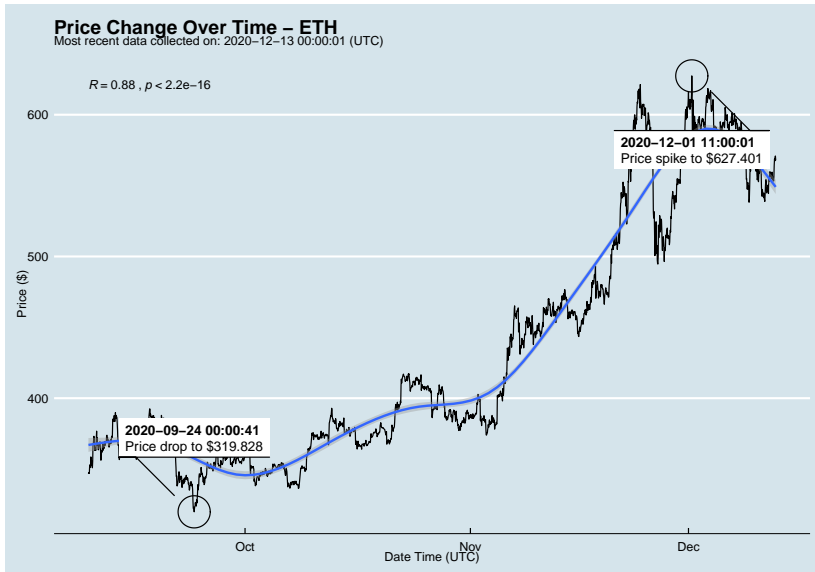# R Markdown Output

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: 2020–12–13 00:00:01 (UTC)

$R = 0.88$, $p < 2.2e{-}16$

2020–12–01 11:00:01
Price spike to $627.401

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

Price ($)

600

500

400

Oct   Nov   Dec

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      567.839  2020-12-13 00:00:01
## 1       BTCUSD    BTC    18807.890  2020-12-13 00:00:00
## 2       ETHUSD    ETH      570.892  2020-12-12 23:00:01
## 3       BTCUSD    BTC    18870.440  2020-12-12 23:00:00
## 4       ETHUSD    ETH      570.047  2020-12-12 22:00:01
## ...        ...    ...          ...                  ...
## 5109    BTCUSD    BTC    11972.900  2020-08-10 06:03:50
## 5110    BTCUSD    BTC    11985.890  2020-08-10 05:03:48
## 5111    BTCUSD    BTC    11997.470  2020-08-10 04:32:55
## 5112    BTCUSD    BTC    10686.880                  NaT
## 5113    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         567.839  lower 50th percentile of price
## 1      BTC       18807.890  upper 50th percentile of price
## 2      ETH         570.892  lower 50th percentile of price
## 3      BTC       18870.440  upper 50th percentile of price
## 4      ETH         570.047  lower 50th percentile of price
```

Back to Gallery

```
include_url("https://r-markdown-gallery.org")
```