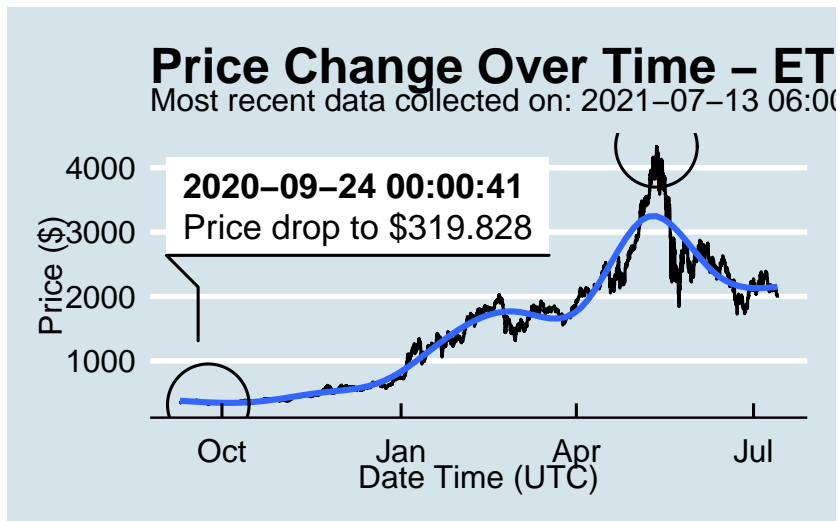# R Markdown Output

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

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     1982.230  2021-07-13 06:00:01
## 1       BTCUSD    BTC    32825.540  2021-07-13 06:00:00
## 2       ETHUSD    ETH     2024.858  2021-07-13 05:00:01
## 3       BTCUSD    BTC    33140.010  2021-07-13 05:00:00
## 4       ETHUSD    ETH     2030.624  2021-07-13 04:00:01
## ...        ...    ...          ...                  ...
## 15172   BTCUSD    BTC    11747.010  2020-08-14 04:03:56
## 15173   BTCUSD    BTC    11722.060  2020-08-14 03:03:55
```

```
## 15174  BTCUSD    BTC    11761.120 2020-08-14 02:04:04
## 15175  BTCUSD    BTC    11719.280 2020-08-14 01:03:54
## 15176  BTCUSD    BTC    11827.080 2020-08-14 00:03:56
##
## [15177 rows x 4 columns]
```

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_price'], 50),
                    'upper 50th percentile of prices',
                    'lower 50th percentile of prices')
# Show modified dataframe:
df[['symbol', 'ask_1_price', 'price_percentile']]
```

```
##         symbol  ask_1_price                 price_percentile
## 0          ETH     1982.230  lower 50th percentile of prices
## 1          BTC    32825.540  upper 50th percentile of prices
## 2          ETH     2024.858  lower 50th percentile of prices
## 3          BTC    33140.010  upper 50th percentile of prices
## 4          ETH     2030.624  lower 50th percentile of prices
## ...        ...          ...                              ...
## 15172      BTC    11747.010  upper 50th percentile of prices
## 15173      BTC    11722.060  upper 50th percentile of prices
## 15174      BTC    11761.120  upper 50th percentile of prices
## 15175      BTC    11719.280  upper 50th percentile of prices
## 15176      BTC    11827.080  upper 50th percentile of prices
##
## [15177 rows x 3 columns]
```