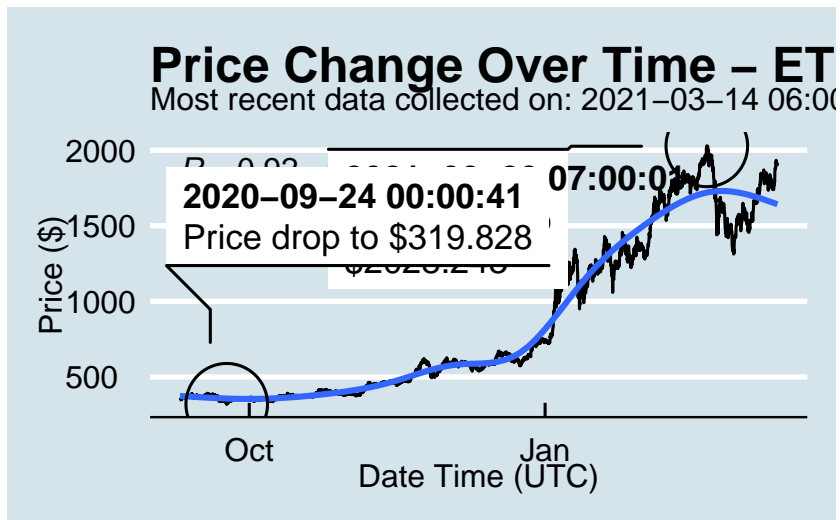# R Markdown Output

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        BTCUSD    BTC    61012.580  2021-03-14 06:00:01
## 1        ETHUSD    ETH     1897.343  2021-03-14 06:00:01
## 2        ETHUSD    ETH     1902.552  2021-03-14 05:00:01
## 3        BTCUSD    BTC    61226.850  2021-03-14 05:00:00
## 4        ETHUSD    ETH     1909.832  2021-03-14 04:00:01
## ...         ...    ...          ...                  ...
## 9487     BTCUSD    BTC    11972.900  2020-08-10 06:03:50
## 9488     BTCUSD    BTC    11985.890  2020-08-10 05:03:48
## 9489     BTCUSD    BTC    11997.470  2020-08-10 04:32:55
## 9490     BTCUSD    BTC    10686.880                  NaT
```

```
## 9491  ETHUSD    ETH       357.844                  NaT
##
## [9492 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):

```
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        BTC    61012.580  upper 50th percentile of prices
## 1        ETH     1897.343  lower 50th percentile of prices
## 2        ETH     1902.552  lower 50th percentile of prices
## 3        BTC    61226.850  upper 50th percentile of prices
## 4        ETH     1909.832  lower 50th percentile of prices
## ...      ...          ...                              ...
## 9487     BTC    11972.900  upper 50th percentile of prices
## 9488     BTC    11985.890  upper 50th percentile of prices
## 9489     BTC    11997.470  upper 50th percentile of prices
## 9490     BTC    10686.880  upper 50th percentile of prices
## 9491     ETH      357.844  lower 50th percentile of prices
##
## [9492 rows x 3 columns]
```