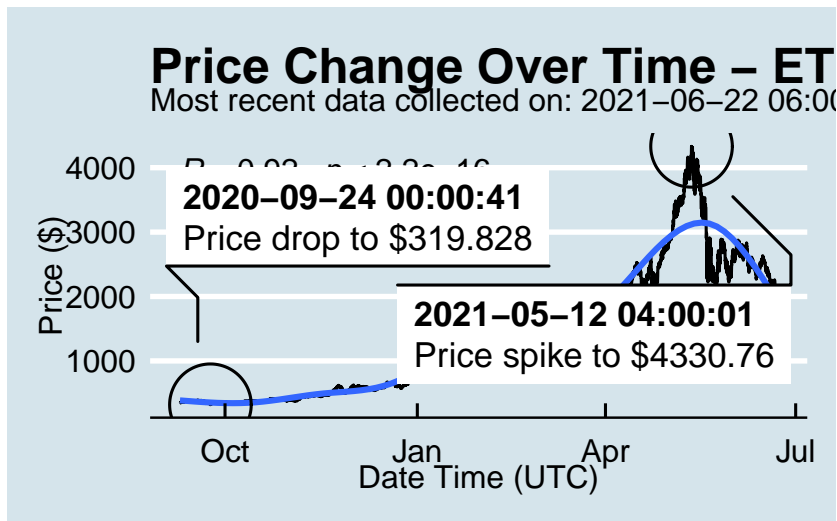# R Markdown Output

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      1936.273  2021-06-22 06:00:01
## 1        BTCUSD    BTC     32572.450  2021-06-22 06:00:00
## 2        ETHUSD    ETH      1966.101  2021-06-22 05:00:01
## 3        BTCUSD    BTC     32905.620  2021-06-22 05:00:00
## 4        ETHUSD    ETH      1974.683  2021-06-22 04:00:01
## ...         ...    ...           ...                    ...
## 14279    BTCUSD    BTC     11972.900  2020-08-10 06:03:50
## 14280    BTCUSD    BTC     11985.890  2020-08-10 05:03:48
```

```
## 14281  BTCUSD    BTC    11997.470 2020-08-10 04:32:55
## 14282  BTCUSD    BTC    10686.880                 NaT
## 14283  ETHUSD    ETH     357.844                  NaT
##
## [14284 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     1936.273  lower 50th percentile of prices
## 1         BTC    32572.450  upper 50th percentile of prices
## 2         ETH     1966.101  lower 50th percentile of prices
## 3         BTC    32905.620  upper 50th percentile of prices
## 4         ETH     1974.683  lower 50th percentile of prices
## ...       ...         ...                               ...
## 14279     BTC    11972.900  upper 50th percentile of prices
## 14280     BTC    11985.890  upper 50th percentile of prices
## 14281     BTC    11997.470  upper 50th percentile of prices
## 14282     BTC    10686.880  upper 50th percentile of prices
## 14283     ETH     357.844   lower 50th percentile of prices
##
## [14284 rows x 3 columns]
```