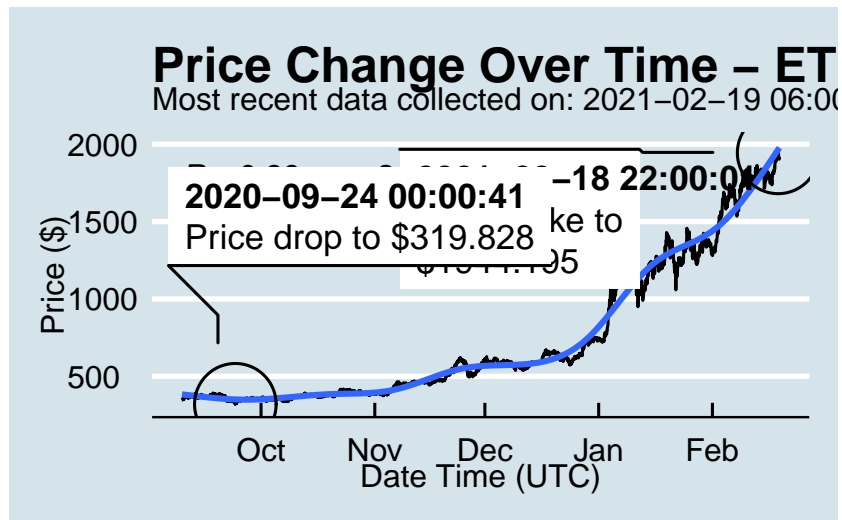# R Markdown Output

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    51522.570  2021-02-19 06:00:01
## 1        ETHUSD    ETH     1914.510  2021-02-19 06:00:01
## 2        ETHUSD    ETH     1903.281  2021-02-19 05:00:01
## 3        BTCUSD    BTC    51167.070  2021-02-19 05:00:00
## 4        BTCUSD    BTC    51256.210  2021-02-19 04:00:01
## ...         ...    ...          ...                  ...
## 8385     BTCUSD    BTC    11972.900  2020-08-10 06:03:50
## 8386     BTCUSD    BTC    11985.890  2020-08-10 05:03:48
## 8387     BTCUSD    BTC    11997.470  2020-08-10 04:32:55
## 8388     BTCUSD    BTC    10686.880                  NaT
```

```
## 8389  ETHUSD    ETH      357.844              NaT
##
## [8390 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        BTC    51522.570  upper 50th percentile of prices
## 1        ETH     1914.510  lower 50th percentile of prices
## 2        ETH     1903.281  lower 50th percentile of prices
## 3        BTC    51167.070  upper 50th percentile of prices
## 4        BTC    51256.210  upper 50th percentile of prices
## ...      ...        ...                                 ...
## 8385     BTC    11972.900  upper 50th percentile of prices
## 8386     BTC    11985.890  upper 50th percentile of prices
## 8387     BTC    11997.470  upper 50th percentile of prices
## 8388     BTC    10686.880  upper 50th percentile of prices
## 8389     ETH      357.844  lower 50th percentile of prices
##
## [8390 rows x 3 columns]
```