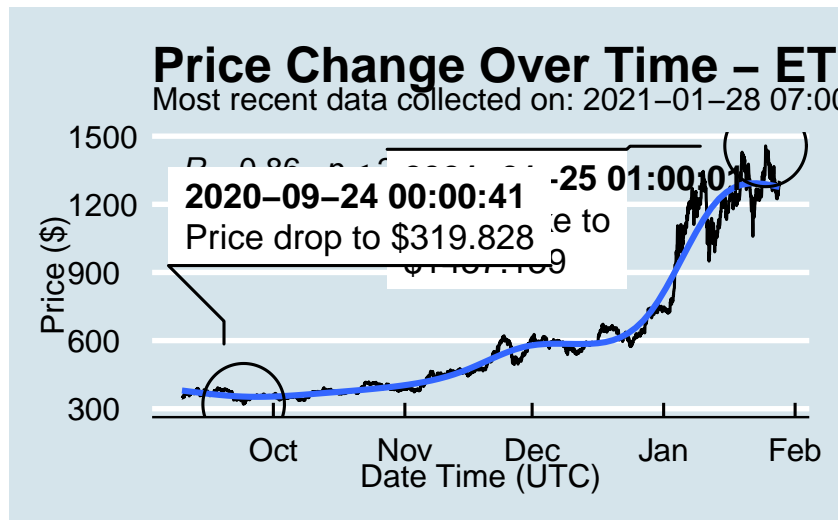# R Markdown Output

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      1303.379 2021-01-28 07:00:01
## 1      BTCUSD    BTC     31562.940 2021-01-28 07:00:00
## 2      ETHUSD    ETH      1300.400 2021-01-28 06:00:01
## 3      BTCUSD    BTC     31736.560 2021-01-28 06:00:00
## 4      ETHUSD    ETH      1282.099 2021-01-28 05:00:01
## ...       ...    ...          ...                 ...
## 7331   BTCUSD    BTC     11972.900 2020-08-10 06:03:50
## 7332   BTCUSD    BTC     11985.890 2020-08-10 05:03:48
## 7333   BTCUSD    BTC     11997.470 2020-08-10 04:32:55
## 7334   BTCUSD    BTC     10686.880                 NaT
```

```
## 7335  ETHUSD    ETH      357.844                  NaT
##
## [7336 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     1303.379  lower 50th percentile of prices
## 1        BTC    31562.940  upper 50th percentile of prices
## 2        ETH     1300.400  lower 50th percentile of prices
## 3        BTC    31736.560  upper 50th percentile of prices
## 4        ETH     1282.099  lower 50th percentile of prices
## ...      ...          ...                              ...
## 7331     BTC    11972.900  upper 50th percentile of prices
## 7332     BTC    11985.890  upper 50th percentile of prices
## 7333     BTC    11997.470  upper 50th percentile of prices
## 7334     BTC    10686.880  upper 50th percentile of prices
## 7335     ETH      357.844  lower 50th percentile of prices
##
## [7336 rows x 3 columns]
```