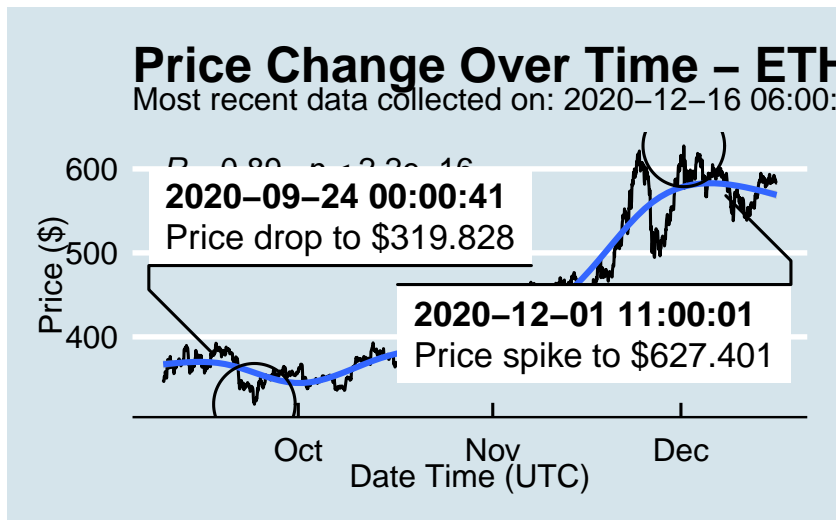# R Markdown Output

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      583.507  2020-12-16 06:00:02
## 1      BTCUSD    BTC    19367.630  2020-12-16 06:00:00
## 2      BTCUSD    BTC    19351.160  2020-12-16 05:00:01
## 3      ETHUSD    ETH      583.321  2020-12-16 05:00:01
## 4      ETHUSD    ETH      583.142  2020-12-16 04:00:01
## ...       ...    ...          ...                  ...
## 5265   BTCUSD    BTC    11972.900  2020-08-10 06:03:50
## 5266   BTCUSD    BTC    11985.890  2020-08-10 05:03:48
## 5267   BTCUSD    BTC    11997.470  2020-08-10 04:32:55
## 5268   BTCUSD    BTC    10686.880                  NaT
```

```
## 5269  ETHUSD    ETH       357.844                 NaT
##
## [5270 rows x 4 columns]
```

One more Python example

The code below creates a new column `price_percentile` that speci-
fies 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      583.507  lower 50th percentile of prices
## 1        BTC    19367.630  upper 50th percentile of prices
## 2        BTC    19351.160  upper 50th percentile of prices
## 3        ETH      583.321  lower 50th percentile of prices
## 4        ETH      583.142  lower 50th percentile of prices
## ...      ...          ...                               ...
## 5265     BTC    11972.900  upper 50th percentile of prices
## 5266     BTC    11985.890  upper 50th percentile of prices
## 5267     BTC    11997.470  upper 50th percentile of prices
## 5268     BTC    10686.880  upper 50th percentile of prices
## 5269     ETH      357.844  lower 50th percentile of prices
##
## [5270 rows x 3 columns]
```