

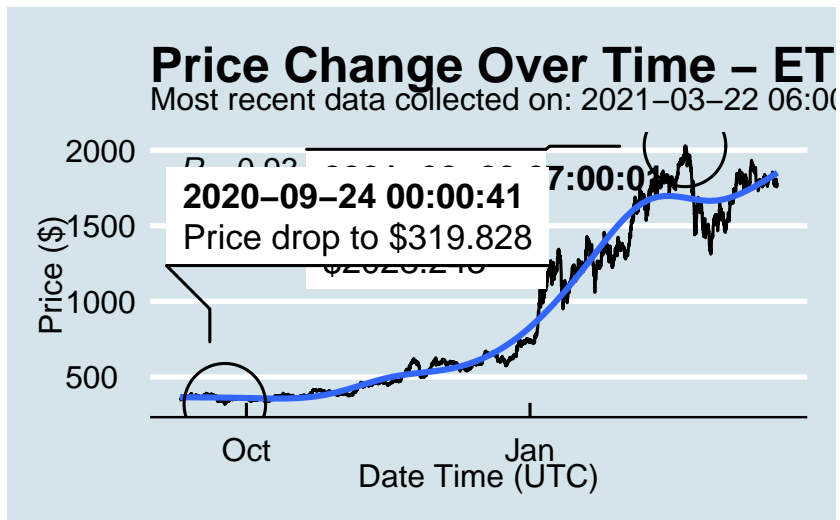
## R Markdown Output

### 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

```
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    | 57617.970   | 2021-03-22 06:00:01 |
| ## 1    | ETHUSD | ETH    | 1788.826    | 2021-03-22 06:00:01 |
| ## 2    | BTCUSD | BTC    | 57618.410   | 2021-03-22 05:00:01 |
| ## 3    | ETHUSD | ETH    | 1788.507    | 2021-03-22 05:00:01 |
| ## 4    | ETHUSD | ETH    | 1782.930    | 2021-03-22 04:00:01 |
| ## ...  | ...    | ...    | ...         | ...                 |
| ## 9869 | BTCUSD | BTC    | 11972.900   | 2020-08-10 06:03:50 |
| ## 9870 | BTCUSD | BTC    | 11985.890   | 2020-08-10 05:03:48 |
| ## 9871 | BTCUSD | BTC    | 11997.470   | 2020-08-10 04:32:55 |
| ## 9872 | BTCUSD | BTC    | 10686.880   | NaT                 |

```
## 9873  ETHUSD    ETH      357.844      NaT
##
## [9874 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    57617.970  upper 50th percentile of prices
## 1      ETH     1788.826  lower 50th percentile of prices
## 2      BTC    57618.410  upper 50th percentile of prices
## 3      ETH     1788.507  lower 50th percentile of prices
## 4      ETH     1782.930  lower 50th percentile of prices
## ...      ...          ...              ...
## 9869     BTC    11972.900  upper 50th percentile of prices
## 9870     BTC    11985.890  upper 50th percentile of prices
## 9871     BTC    11997.470  upper 50th percentile of prices
## 9872     BTC    10686.880  upper 50th percentile of prices
## 9873     ETH      357.844  lower 50th percentile of prices
##
## [9874 rows x 3 columns]
```