

## R Markdown Output

Last run on: 2021-04-24 06:15:01

2021-04-24 06:15:01

# Overview

This document has code embedded throughout. In the next section we will create a visualization using the already loaded dataset `eth_data`:

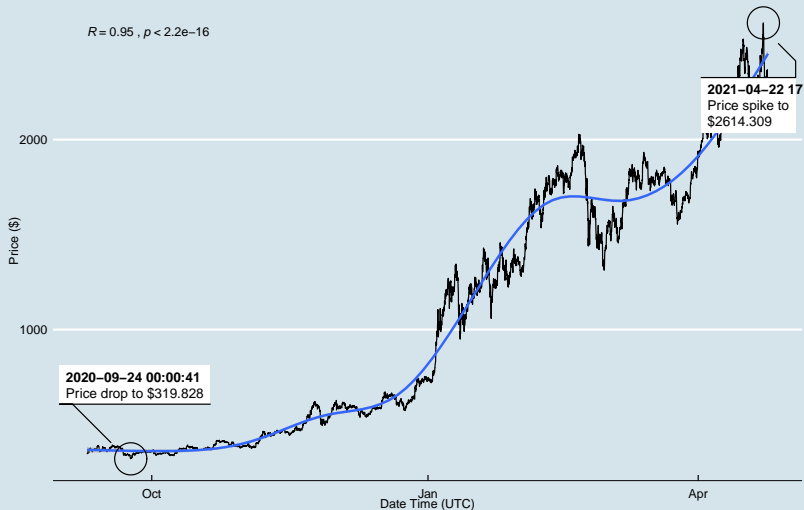
```
datatable(eth_data)
```

# Price Chart - Ethereum

## Price Change Over Time - ETH

Most recent data collected on: 2021-04-24 06:00:01 (UTC)

$R = 0.95$  ,  $p < 2.2e-16$



## 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      ETHUSD    ETH      2316.761 2021-04-24 06:00:01
## 1      BTCUSD    BTC      50457.720 2021-04-24 06:00:00
## 2      ETHUSD    ETH      2309.425 2021-04-24 05:00:01
## 3      BTCUSD    BTC      50424.920 2021-04-24 05:00:00
## 4      ETHUSD    ETH      2298.055 2021-04-24 04:00:01
## ...      ...      ...      ...      ...
## 11453  BTCUSD    BTC      11972.900 2020-08-10 06:03:50
## 11454  BTCUSD    BTC      11985.890 2020-08-10 05:03:48
## 11455  BTCUSD    BTC      11997.470 2020-08-10 04:32:55
## 11456  BTCUSD    BTC      10686.880                NaT
## 11457  ETHUSD    ETH       357.844                NaT
```

## 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 price'),
                                  'lower 50th percentile of price')
# Show modified dataframe:
df[['symbol', 'ask_1_price', 'price_percentile']]
```

	##	symbol	ask_1_price	price_percentile
## 0	0	ETH	2316.761	lower 50th percentile of price
## 1	1	BTC	50457.720	upper 50th percentile of price
## 2	2	ETH	2309.425	lower 50th percentile of price
## 3	3	BTC	50424.920	upper 50th percentile of price
## 4	4	ETH	2298.055	lower 50th percentile of price