TA Analysis

Kim Donaldson

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```
library(tidyverse)
library(plotly)
```

Exploring Historical Closes

Download the dataset

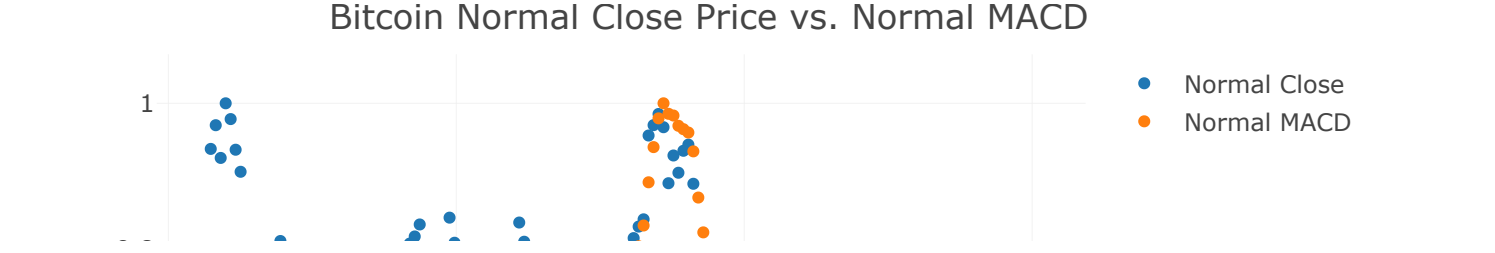
```
btc <- read_csv('https://raw.githubusercontent.com/kimgdonaldson/algotrade/main/btc-06-12-22.csv')
```

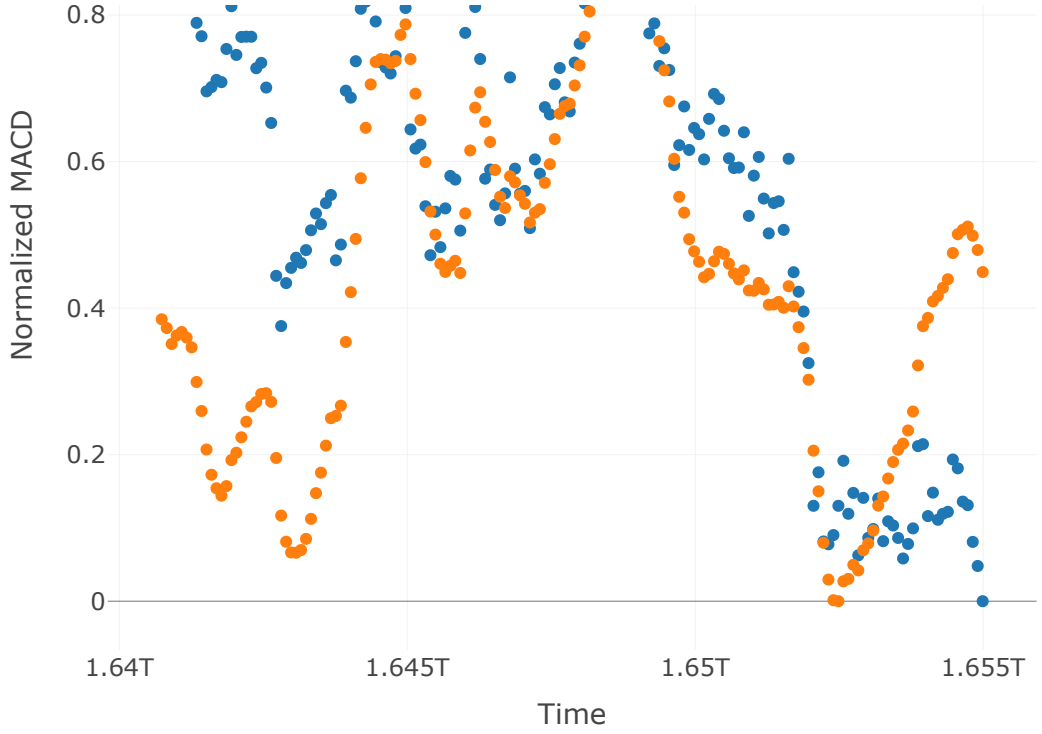
Normalize closing price and TA indicators to range (0,1) and remove NA's

```
btc <- btc %>% drop_na()
btc_normal <- btc %>% mutate(normal_close = (close - min(close)) / (max(close) - min(close)),
                             normal_rsi = (rsi - min(rsi)) / (max(rsi) - min(rsi)),
                             normal_macd = (macd - min(macd)) / (max(macd) - min(macd)),
                             normal_signal = (stoch_signal - min(stoch_signal)) /  (max(stoch_signal) - min(stoch_signal)),
                             normal_stoch_rsi = (stoch_rsi - min(stoch_rsi)) / max(stoch_rsi) - min(stoch_rsi))
```

Plotting the relationship between Closing Price and MACD

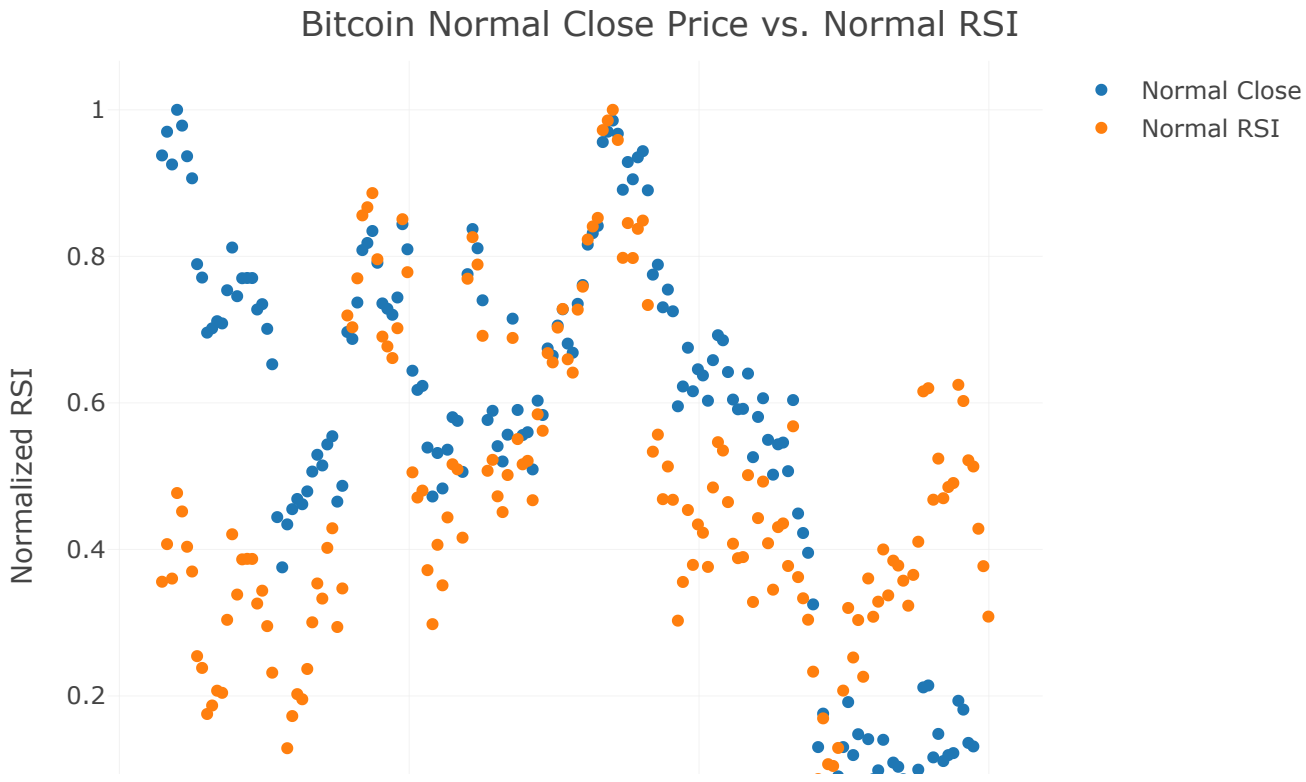
```
fig <- btc_normal %>% plot_ly(x = ~timestamp, y = ~normal_close, type='scatter', name='Normal Close') %>%
  add_trace(y = ~normal_macd, type='scatter', name='Normal MACD') %>%
  layout(title="Bitcoin Normal Close Price vs. Normal MACD",
         xaxis=list(title="Time"), yaxis=list(title="Normalized MACD"))
fig
```

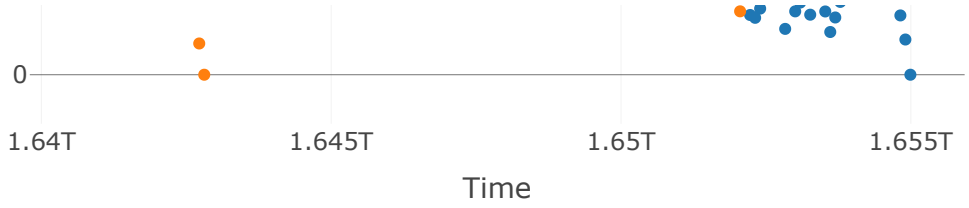




Plotting the relationship between Closing Price and RSI

```
fig <- btc_normal %>% plot_ly(x = ~timestamp, y = ~normal_close, type='scatter', name='N
ormal Close') %>%
  add_trace(y = ~normal_rsi, type='scatter', name='Normal RSI') %>%
    layout(title="Bitcoin Normal Close Price vs. Normal RSI",
           xaxis=list(title="Time"), yaxis=list(title="Normalized RSI"))
fig
```




0
1.64T
1.645T
1.65T
1.655T
Time