ETHEREUM PRICE PREDICTION

Report on Ethereum Price Analysis:

Since last year, interest in cryptocurrencies has increased significantly as bitcoin has consistently set new records. Its development has been attributed to a number of factors, including growing institutional interest and significant corporations, like Tesla, purchasing the digital coin.

According to market capitalization, Ethereum is the second-largest cryptocurrency. While other cryptocurrencies were in a state of stagnation in 2020-21, Ethereum's growing use cases helped investors realise its enormous potential. Although Ethereum (ETH) increased more than two times from the all-time high established in 2018, most investors did not anticipate it to reach that level. and in 2021 it experienced a tremendous bull run, reaching an all-time high (ATH) of $4,840 in November. It should be noted that there was another spike back in May in the same year when the prices reached a high of $4,308. Since November 2021, the coin has reached new lows, but the project's future has given investors hope for a price increase.

In this project, we attempt to forecast the price of Ethereum based on the coin's past performance and the potential of upcoming initiatives.

Before we begin here are some recent news about Ethereum as of April 2023:

❖ During the first week of March 2023, Ethereum and other cryptocurrencies saw a correction when Silvergate, the crypto bank, lost half of its market share. In the previous 14 days, ETH's price has decreased by around 7%.

❖ In April 2023, the Shanghai Capella renovation is anticipated to occur. Long-term Ethereum stakes can anticipate the introduction of complete or partial staking withdrawals as a result of this Ethereum network upgrade.

❖ With a price of $1,905.27 right now, Ethereum has a $232 billion market cap.

# Results from exploratory analysis on the Ethereum prices from Jan 2016:

I. **Analysing the trend for opening prices of Ethereum (ETH-USD)**
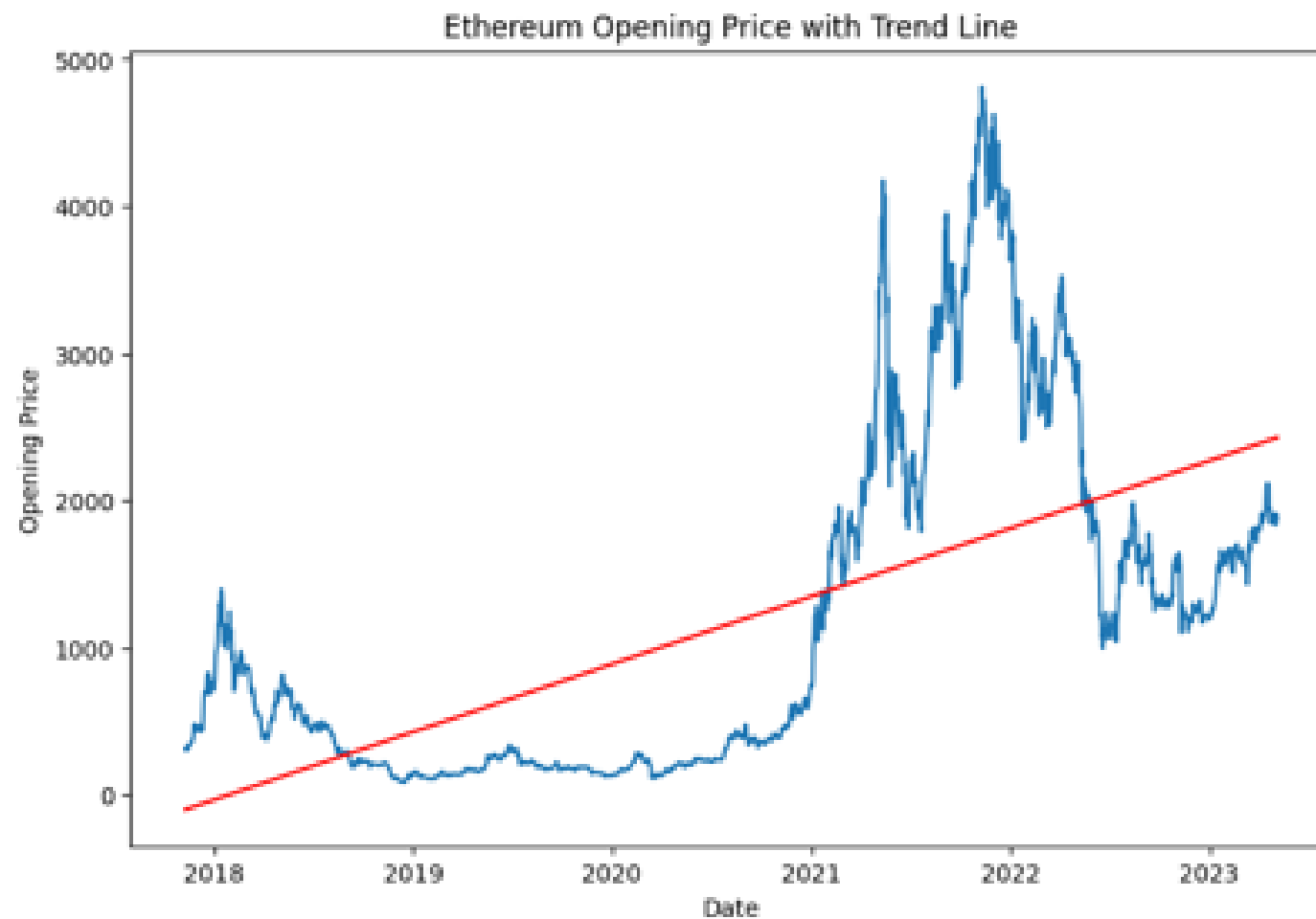
Inference: We notice an upward trend in the data for Ethereum price with 3 prominent spikes in the period between 2021 and 2022. This in accordance with what we already know from real world analysis on Ethereum prices as mentioned before.

II. Analysing the seasonality present in the data

Seasonality is the term used to describe specific time periods during which specific stocks, sector indices, and broad market indices are subjected to and impacted by repeating trends that result in patterns that are visible in the investment valuation.

Ethereum Average Opening Price by Month
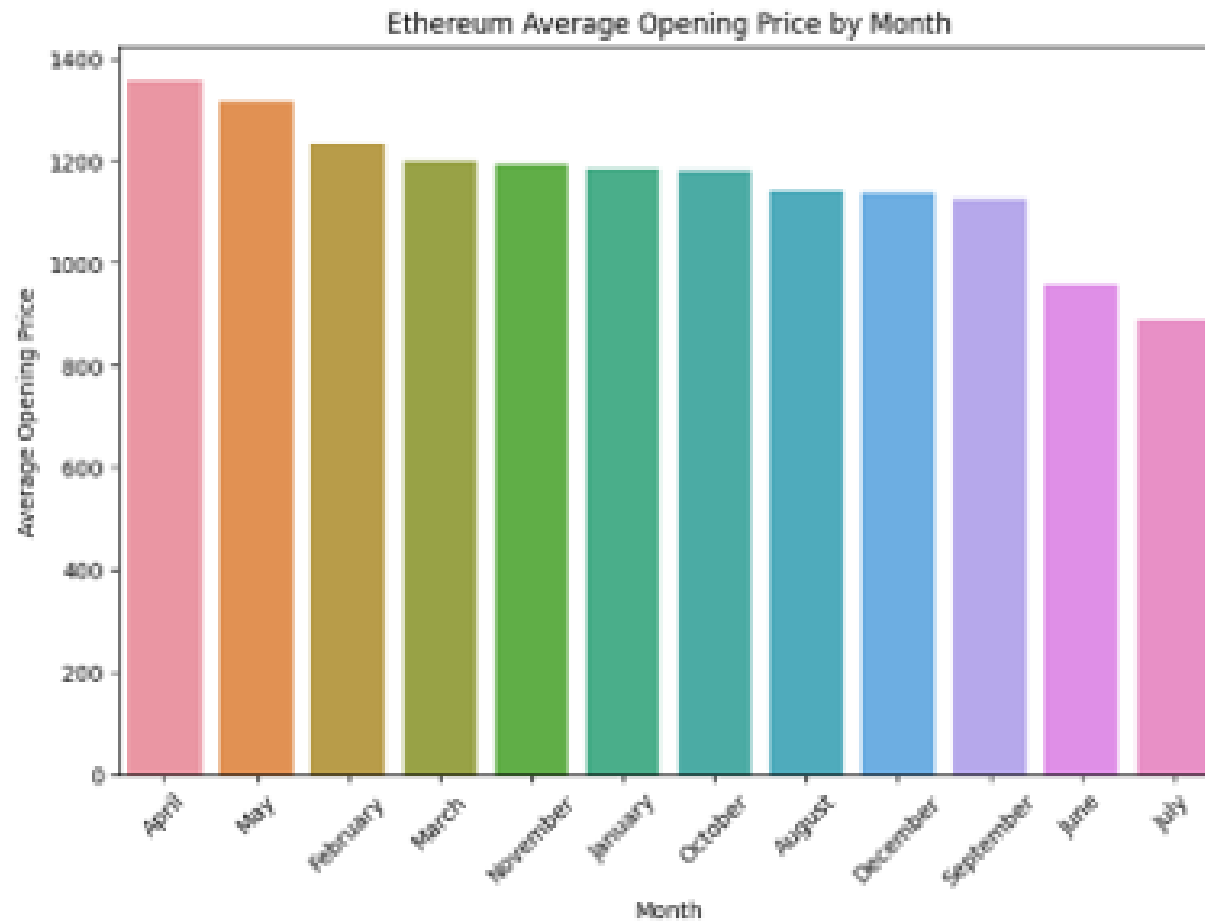
Inference: We observe that there is a surge in prices during the months of April-May. The prices are at its lowest during June-July.
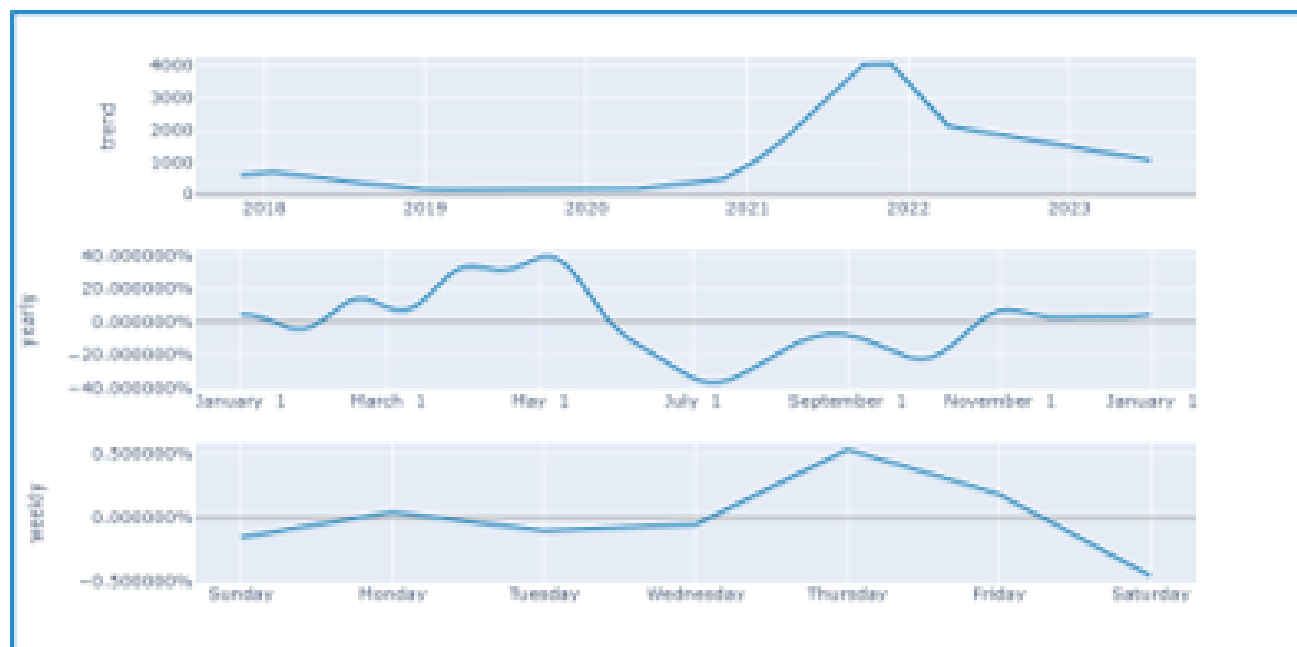
III. Time Series plot for Ethereum Open Prices
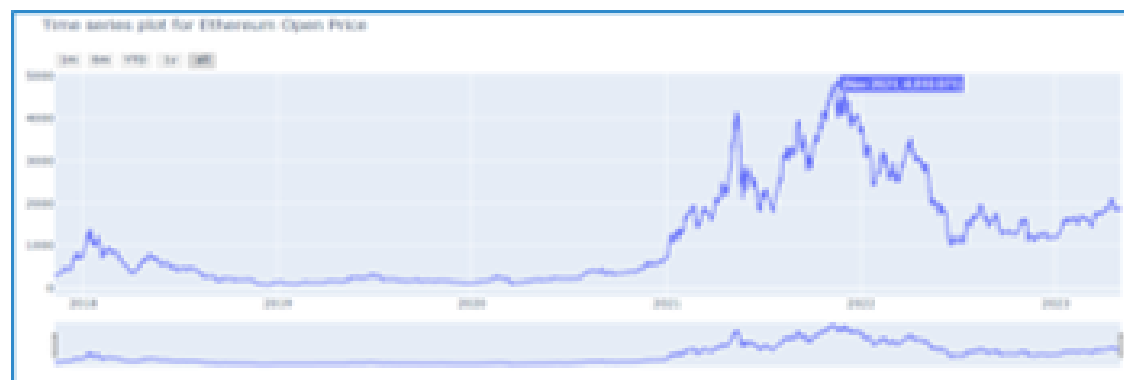
IV.   Forecasted Price for tomorrow

V.   Growth curve trend, Weekly seasonal, and Yearly seasonal components

Inference:

- ETH-USD is observed to have a downtrend in the upcoming days.
- Prices are observed to be the lowest around July on a Wednesday.