PROJECT REPORT

TOPIC: CRYPTOCURRENCY PREDICTION WITH (AI)

NAME: NOKHAIZ AHMED
ID: CSC-21F-099 SECTION:
6-C
COURSE: ARTIFICIAL INTELLIGENECE
TEACHER: MISS AQSA

ABSTRACT:

With the digital world taking over by storm, cryptocurrency prediction has developed as an exciting domain. In this paper, we examine that artificial intelligence (AI) tools generate predictions that can predict prices in the cryptocurrency market. We try to revise historical data and different market indicators to have a good prediction in the future. It shows the promise of AI in help cryptocurrency trading strategy and financial performance.

Keywords: cryptocurrency prediction, price prediction, artificial intelligence

INTRODUCTION:

Cryptocurrency markets have experienced a remarkable transformation recently. The total market capitalisation of cryptocurrencies rose from 267.8 billion to 1.664 trillion between November 2017 and March 2022 (based on data on www.tradingview.com, accessed on 1 November 2022). Bitcoin as the most recognized cryptocurrency with the highest market capital. Cryptocurrency markets attract many investors, however, the volatile nature of these markets also poses a high risk of financial loss. Moreover, there is an increasing trend among international companies that have invested in cryptocurrency-based business solutions. Cryptocurrency markets have been a prominent subject for investors there is an increasing number of promising methods to deal with cryptocurrency analysis and predict.

Cryptocurrency has become a highly interesting asset due to its various advantages, including potential high returns. However, traders aim not only to maximize prediction accuracy but also to achieve optimal returns, stability, and effective risk management. A grid trading strategy, which uses multiple orders at different price levels, could be more effective. The research on using AI-enhanced grid trading in cryptocurrency markets is still limited. Since Bitcoin's creation in 2009, the cryptocurrency market has grown significantly, now including thousands of alternative cryptocurrencies. However, Bitcoin remains the leader. Using AI to recognize patterns, predict trends, and analyze data can help investors make more informed decisions in cryptocurrency trading.

LITERATURE REVIEW:

By increasing the popularity and rising trend of cryptocurrencies have capture the attention of investors and give them an opportunity to make their strong portfolios[1]. Especially Bitcoin, becomes a favorite for investors because of it potential high-return[1]. High liquidity and relative stability are key factors for bitcoin market dominance[2]. Many of the studies have mentioned the use of AI in cryptocurrency trading can help in better investment decisions and profit margin too by analyze large amount of data to predict market trend and reduce risk[1].

Grid trading, it's a specific AI technique in trading where traders set interval to profit for buy and sell orders with market fluctuation[2]. This strategy can dynamically adjust three intervals such as real time data, potentially leading to more stables and profitable traders[2]. Although there is limited research on applying AI-driven grid trading to cryptocurrencies, its successful use in other

markets, such as stocks and forex, indicates that it could also be effective for cryptocurrency trading[1].

Moreover, Many of the studies have also mentioned the use of Machine learning for cryptocurrency prediction and for managing portfolio too[2].

Cryptocurrency market is growing up faster day by day with approximately value of 2 trillion dollars in 2022 comparable to the market of Apple[2]. Cryptocurrency is an important part of financial market. AI becomes an important factor for prize prediction in trading[2].

1.METHODOLOGY:

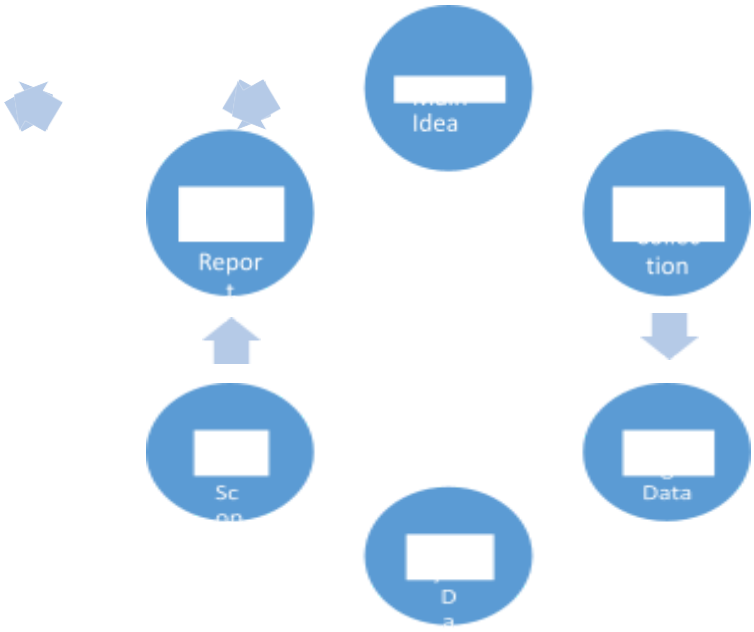
1.1) The purpose of this research paper is to aim that AI can be useful for cryptocurrency prediction. We have picked a dataset from kaggle that have some factors like; Unix, date, symbol, open, high, low, close, Volume XR, Volume USDT market data for cryptocurrency.

Apart from that, couple of literature review has been revised for understand the some background and knowing the overall point of view for cryptocurrency prediction with AI.

Whereas, secondary source is use for data collection from Literatures, and websites. Further, Researcher use python language and it's libraries pandas, matplotlib.pyplot and seaborn to describe and visualize the data set. It uses **pd.read_csv** to read csv file of Some of the factors from data has been analyze and represent in a [figures.]

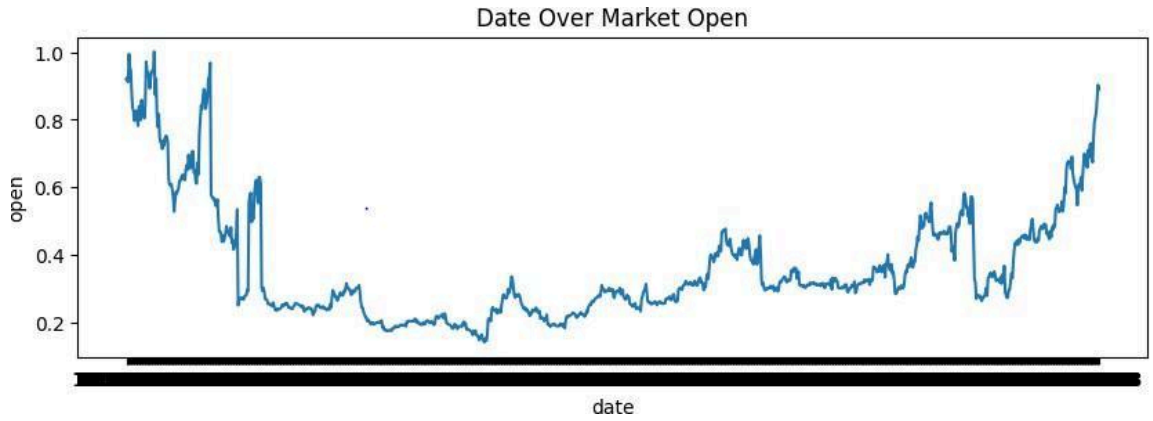
1.2) Flowchart:

It shows that how things happen step by step in this research paper:

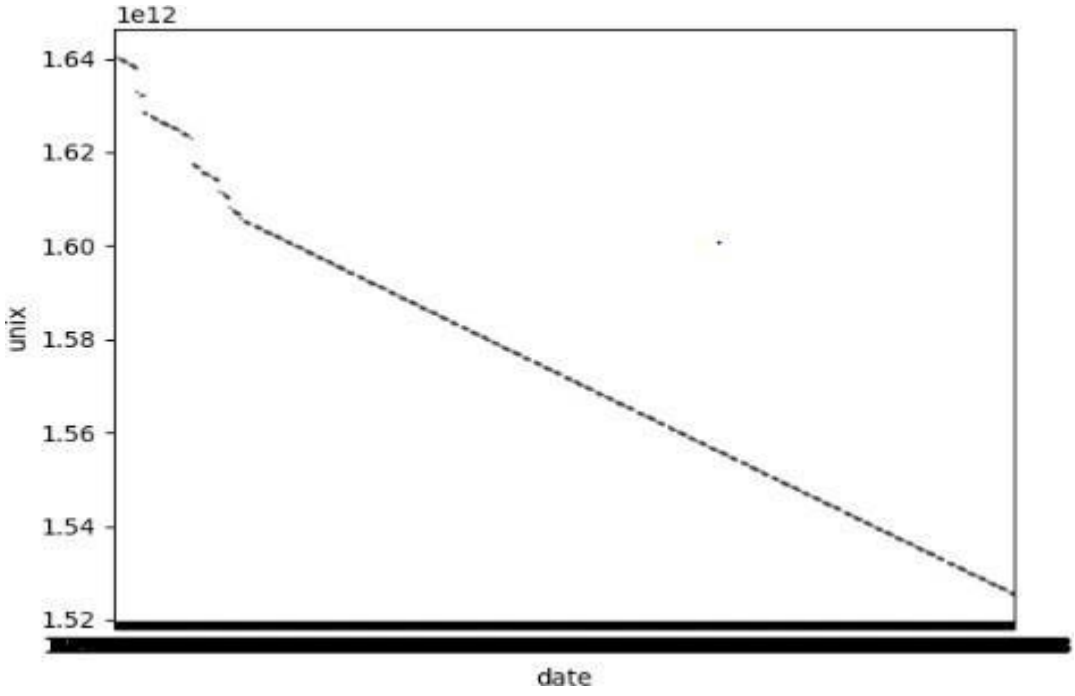


1.3) Data Analyze:

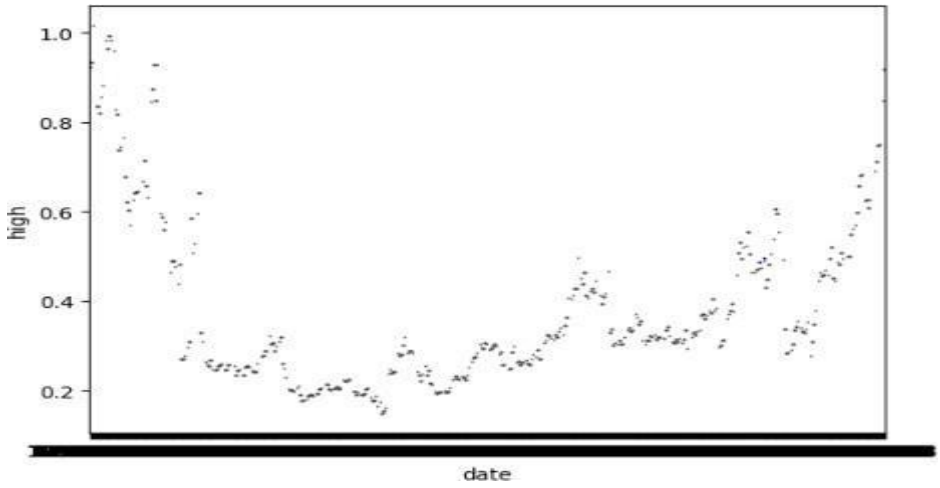
Some of the factors of collective data has been analyze and mentioned in [figures].



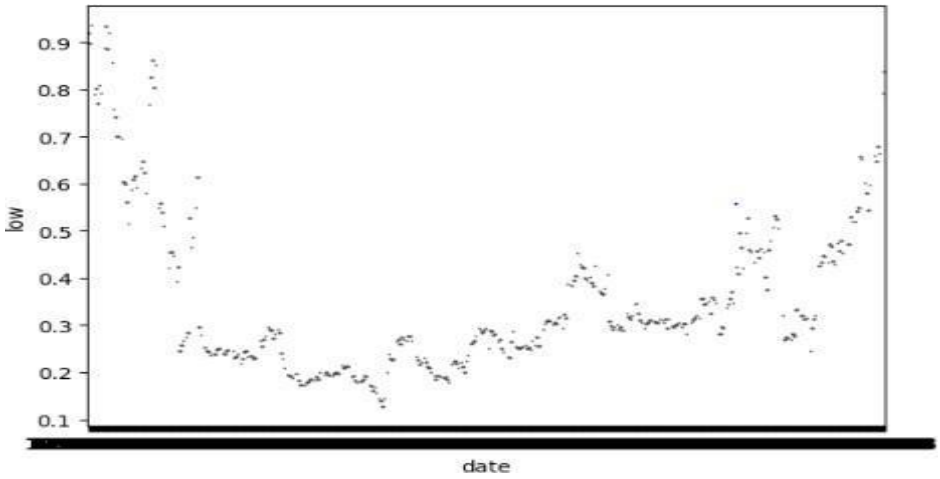
Date over Unix;



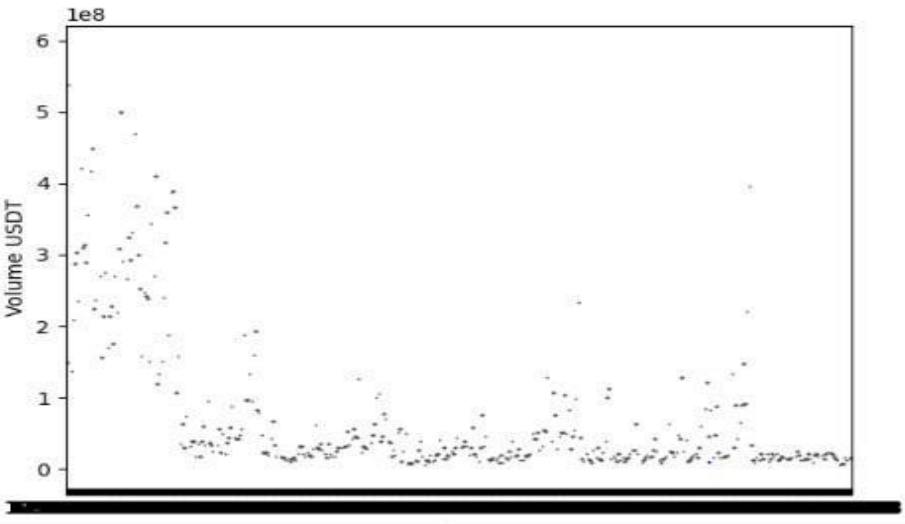
Date over high;



Date over low;



Date over Volume USDT;



RESULTS:

After the analysis of collective data the things that come front is that bitcoin domain dominate in the financial market of cryptocurrencies with it's benefits includes high potential returns and stability. With the literature reviewed it acknowledge that (AI) can be helpful for predicting cryptocurrency trading and can enhance the profit margin of investors. A grid-trading technique of (AI) and machine learning is successfully shown a good financial prediction in cryptocurrency market. We also identified key challenges and future research directions that will interest the AI and machine learning communities focusing on cryptocurrencies.

CONCLUSION:

Conclusion is that couple of AI techniques have become useful for financial prediction of cryptocurrency market. This approach can easy be use for analyze collective data, predict prize, and make better decision in cryptocurrency market. Moreover, these can enhance the trading strategies and get better results in market.

REFERENCES:

1. **Dataset:**

   From Kaggle: [https://www.kaggle.com/datasets/emirhanai/cryptocurrency-prediction-artificial-intelligence?select=12+%282%29+%28Data%29.csv]

2. **Research Paper / Literature Review:**

By Rasoul Amirzadeh, Rasoul Amirzadeh, Rasoul Amirzadeh
School of Information Technology, Deakin University, Geelong, VIC 3216, Australia
Link: [https://www.mdpi.com/1999-4893/15/11/428]

By Rachasak Somyanonthanakul
College of Digital Innovation Technology
Link:
[https://www.researchgate.net/publication/377825341_Utilizing_Artificial_Intelligence_in_Cryptocurrency_Trading_a_Literature_Review]