


NAME: Bitcoin price prediction


DATE: July 1, 2025 5:40 PM

DESCRIPTION OF TECHNOLOGY

The project aims to develop a predictive model for Bitcoins price by combining historical market data with sentiment analysis of Bitcoin-related tweets seeking to provide more accurate and responsive predictions, drawing insights from both market trends and public opinion.




IMPACT ON SOCIETY




The problem is the difficulty in accurately predicting Bitcoin's price due to its high volatility and sensitivity to market sentiment. This unpredictability poses challenges for traders, investors, and financial analysts. Yes, it is a problem for stakeholders relying on informed decision-making in cryptocurrency markets. Predicting Bitcoin's price could potentially improve risk management and profitability.

HATEFUL AND CRIMINAL ACTORS




The predictive model could be exploited for illegal trading activities, such as insider trading or pump-and-dump schemes.

PRIVACY




The technology itself does not directly register personal data but may process data from social media (e.g., tweets). This could include public user handles, tweet content, timestamps, and geotags if available. While this information is publicly accessible, it still qualifies as personal data under data protection regulations. Personal data such as people's usernames won't be used and will be removed.

HUMAN VALUES




The technology does not inherently affect user identities but might indirectly influence users by impacting their trading strategies and behaviors. If users depend heavily on predictions, they could adopt riskier financial habits, but the tool improve risk management and profitability if used cleverly.

STAKEHOLDERS



- Traders, investors and financial analysts

DATA




There are several possible pitfalls and more specifically data-related challenges:

1. Historical data may not account for future market anomalies.

2. Sentiment misinterpretation leading to incorrect sentiment scoring.

3. The model might perform well on historical data, but poorly in real-world scenarios.

INCLUSIVITY



Historical price data might not include non-market factors influencing Bitcoin which are very hard to acknowledge and minimize.

TRANSPARENCY




N.A.

SUSTAINABILITY



N.A.

FUTURE



Increasing accuracy by further training with newer data and using new approaches.

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IMPACT ON SOCIETY



What is exactly the problem? Is it really a problem? Are you sure?

Can you exactly define what the challenge is? What problem (what 'pain') does this technology want to solve? Can you make a clear definition of the problem? What 'pain' does this technology want to ease? Whose pain? Is it really a problem? For who? Will solving the problem make the world better? Are you sure? The problem definition will help you to determine...


HATEFUL AND CRIMINAL ACTORS



In which way can the technology be used to break the law or avoid the consequences of breaking the law?

Can you imagine ways that the technology can or will be used to break the law? Think about invading someone's privacy. Spying. Hurting people. Harassment. Steal things. Fraud/identity theft and so on. Or will people use the technology to avoid facing the consequences of breaking the law (using trackers to evade speed radars or using bitcoins to launder...


PRIVACY



Does the technology register personal data? If yes, what personal data?

If this technology registers personal data you have to be aware of privacy legislation and the concept of privacy. Think hard about this question. Remember: personal data can be interpreted in a broad way. Maybe this technology does not collect personal data, but can be used to assemble personal data. If the technology collects special personal data (like...

HUMAN VALUES



How is the identity of the (intended) users affected by the technology?

To help you answer this question think about sub questions like:

- If two friends use your product, how could it enhance or detract from their relationship?
- Does your product create new ways for people to interact?...

STAKEHOLDERS




Who are the main users/targetgroups/stakeholders for this technology? Think about the intended context by...

When thinking about the stakeholders, the most obvious one are of course the intended users, so start there. Next, list the stakeholders that are directly affected. Listing the users and directly affected stakeholders also gives an impression of the intended context of the technology.

...

DATA




Are you familiar with the fundamental shortcomings and pitfalls of data and do you take this sufficiently into...

There are fundamental issues with data. For example:

- Data is always subjective;
- Data collections are never complete;
- Correlation and causation are tricky concepts;
- Data collections are often biased;...


INCLUSIVITY



Does this technology have a built-in bias?

Do a brainstorm. Can you find a built-in bias in this technology? Maybe because of the way the data was collected, either by personal bias, historical bias, political bias or a lack of diversity in the people responsible for the design of the technology? How do you know this is not the case? Be critical. Be aware of your own biases....


TRANSPARENCY



Is it explained to the users/stakeholders how the technology works and how the business model works?

- Is it easy for users to find out how the technology works?
- Can a user understand or find out why your technology behaves in a certain way?
- Are the goals explained?
- Is the idea of the technology explained?
- Is the technology company transparent about the way their...


SUSTAINABILITY



In what way is the direct and indirect energy use of this technology taken into account?

One of the most prominent impacts on sustainability is energy efficiency. Consider what service you want this technology to provide and how this could be achieved with a minimal use of energy. Are improvements possible?

FUTURE



What could possibly happen with this technology in the future?

Discuss this quickly and note your first thoughts here. Think about what happens when 100 million people use your product. How could communities, habits and norms change?

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