

Web3 Trading Analysis Report

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1. Introduction

This analysis examines how trader behavior aligns with market sentiment in the Bitcoin market. Using historical trade data from Hyperliquid and the Fear & Greed Index, the goal is to identify patterns in profitability, trading volume, and risk relative to market sentiment. The insights aim to support more informed trading strategies and decision-making.

2. Data Overview

The analysis uses two datasets:

1. **Trader Data:** Detailed information for each trade including trade size, execution price, buy/sell direction, profit or loss, leverage, and timestamps.
2. **Market Sentiment Data:** Daily Fear & Greed Index classifications indicating the prevailing market sentiment.

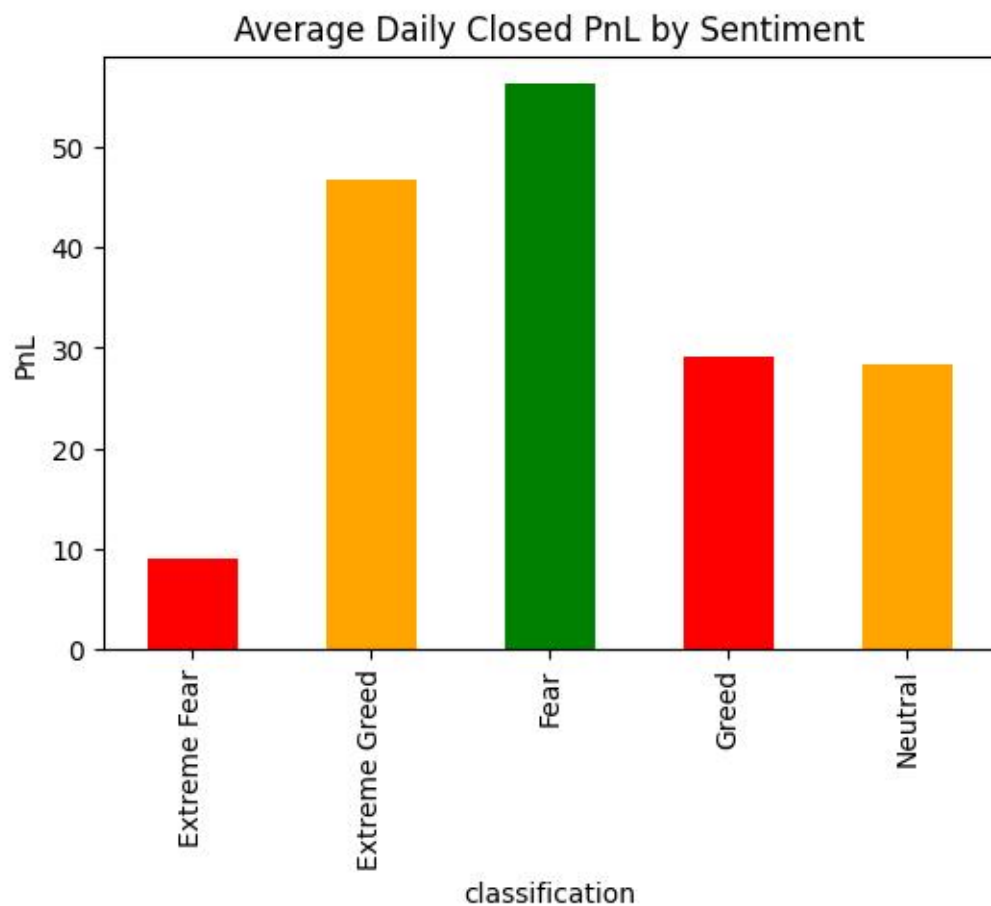
The datasets were merged on trade date, and additional metrics such as risk-adjusted return (profit per dollar traded) were calculated to better evaluate trading efficiency under different market conditions.

3. Exploratory Analysis

3.1 Profitability by Sentiment

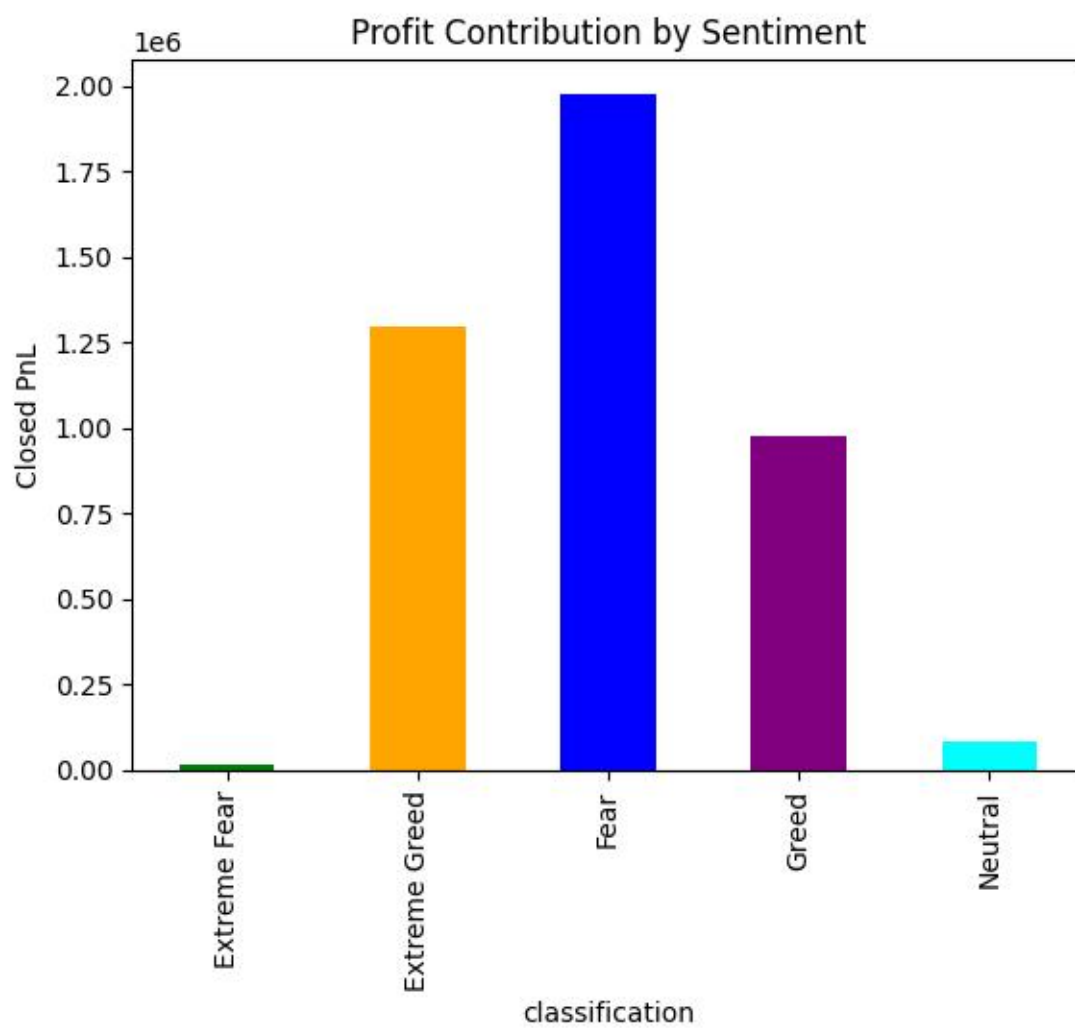
- Trades executed during periods of **market greed** generally produced higher profits.
- **Fear** periods were associated with negative average profits, indicating that trading in fearful markets is more challenging.

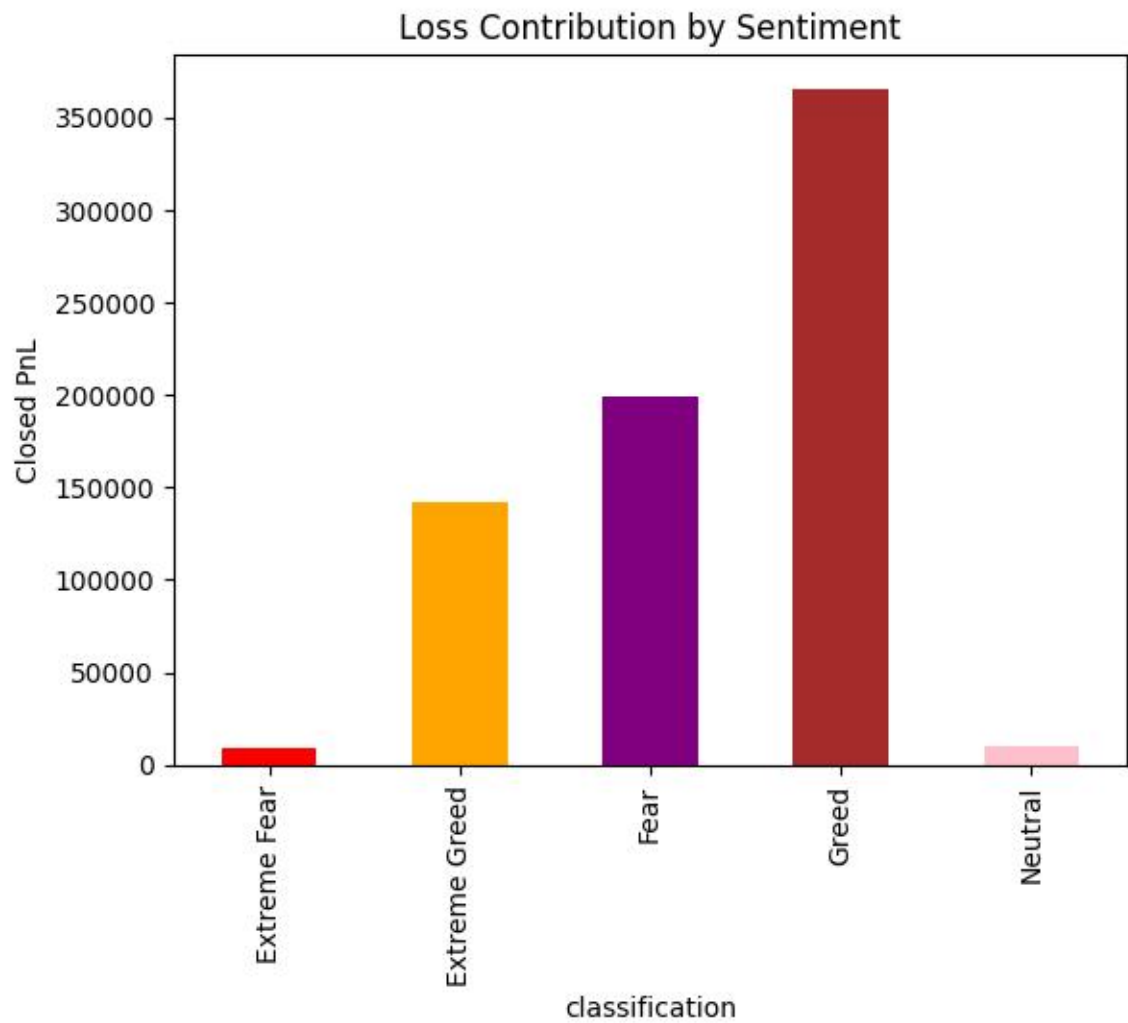
- Neutral periods showed smaller fluctuations in profit, reflecting moderate trading conditions.



3.2 Profit and Loss Contributions

- Overall profits were mostly generated during **greed** and **neutral** periods.
- Losses were concentrated during **fear** periods, highlighting the higher risk in uncertain markets.

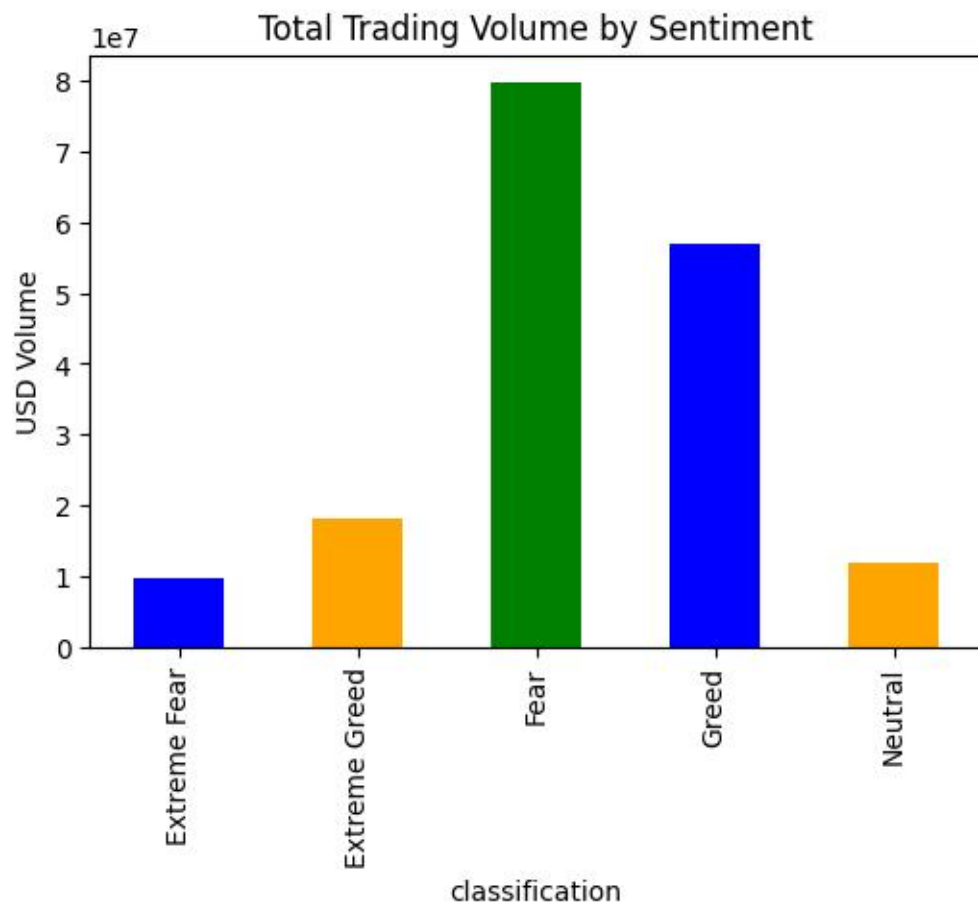




3.3 Trading Volume Patterns

- Trading activity was highest during **greed**, moderate during neutral sentiment, and lowest during fear.

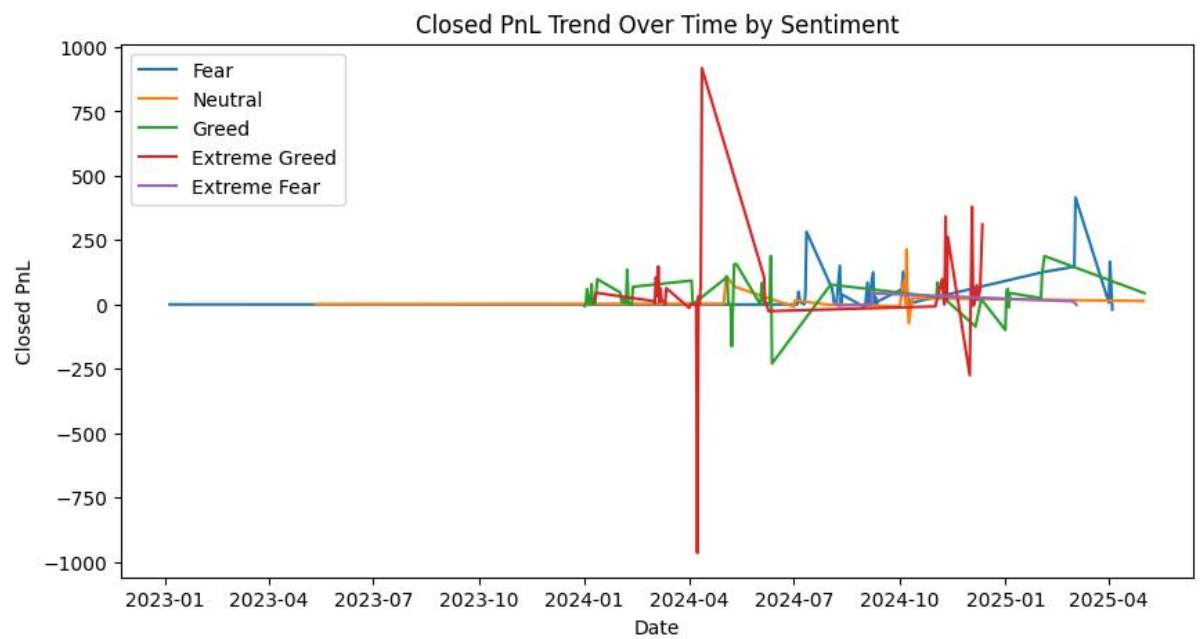
- This suggests traders are more confident and active when the market is optimistic, and more cautious when sentiment is negative.



3.4 Trends in PnL Over Time

- Daily profits and losses closely followed sentiment cycles.
- Peaks in profit aligned with greed periods, while troughs coincided with fear periods.

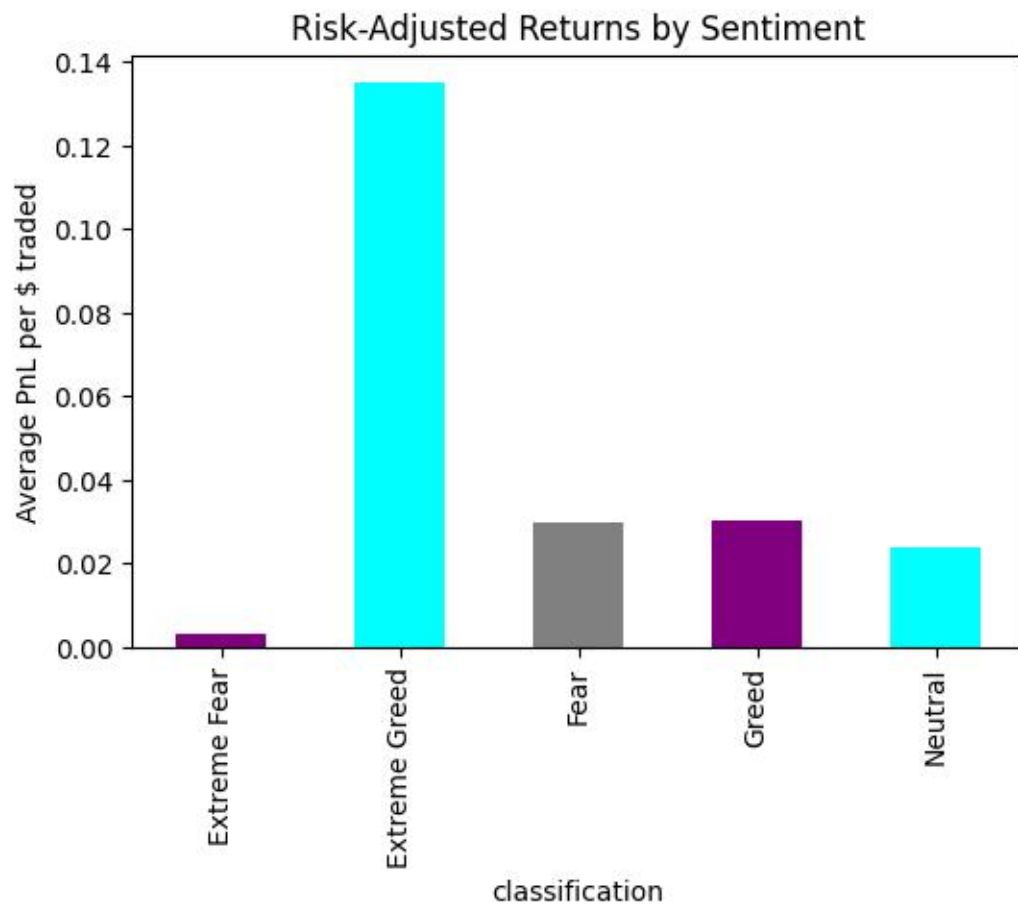
- Neutral periods provided more stable outcomes, resulting in consistent performance.



3.5 Risk-Adjusted Performance

- Trades during greed periods not only yielded higher profits but also had better risk-adjusted returns.

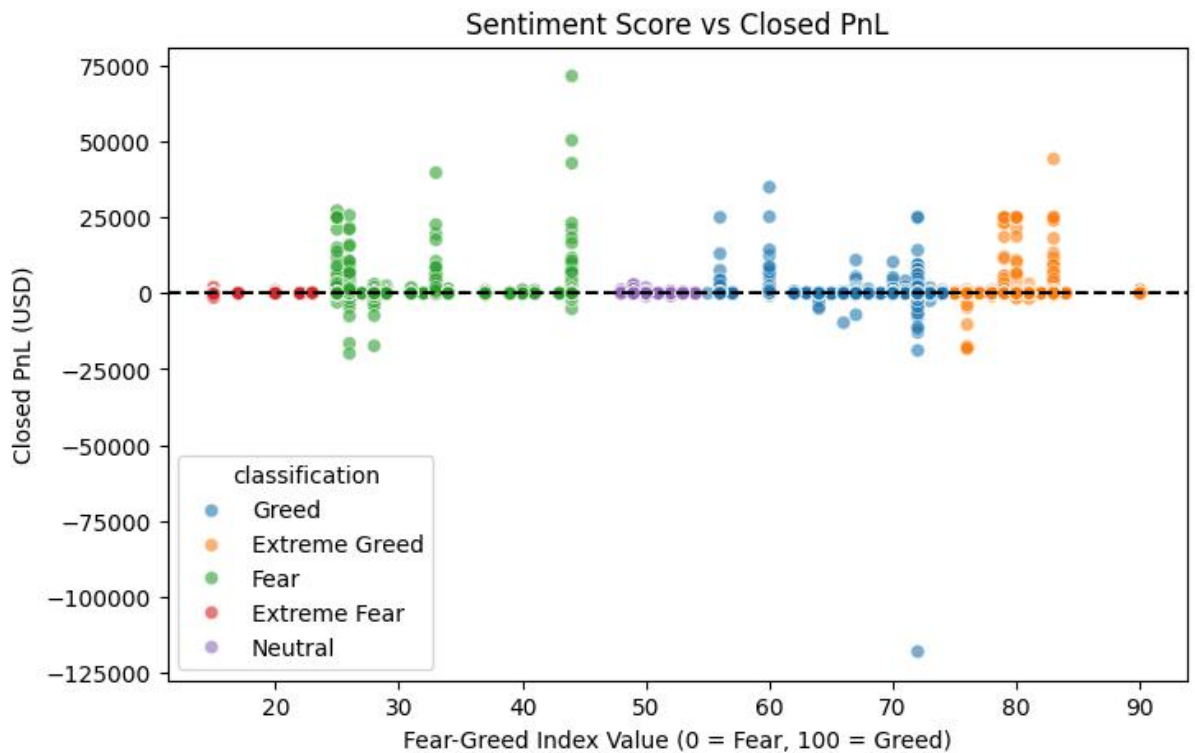
- Fear periods were less efficient, as even smaller trades often resulted in negative returns relative to the capital deployed.



3.6 Relationship Between Sentiment Score and Profit

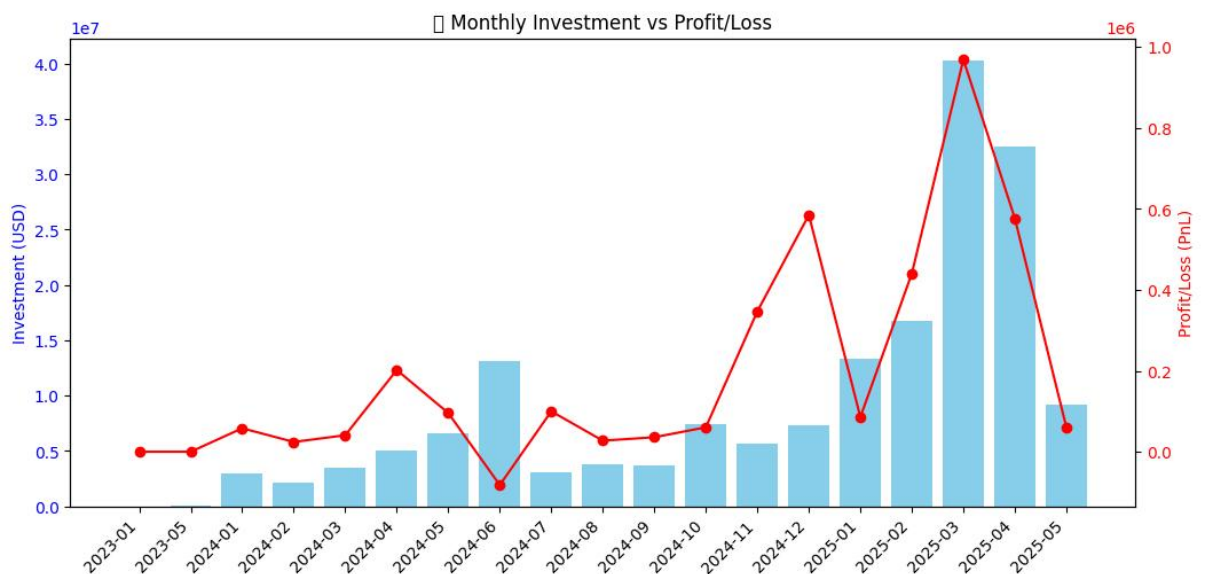
- There is a positive relationship between market sentiment and trade profitability.
- High greed values corresponded to higher profits, whereas high fear values were linked to losses.

- This indicates that sentiment can serve as a useful signal for predicting trading performance.



3.7 Monthly Investment and Performance

- Investments tended to increase during greed periods, with profits peaking shortly afterward.
- Losses were more common in months dominated by fear sentiment.
- This highlights the importance of timing trades according to overall market sentiment to optimize returns.



4. Key Takeaways

1. **Market sentiment strongly influences trading outcomes:** Greed periods tend to be more profitable, while fear periods are riskier.
2. **Efficiency matters:** Risk-adjusted returns are highest in positive sentiment periods, suggesting that capital allocation should consider both sentiment and trade size.
3. **Investment timing is important:** Traders can improve performance by increasing activity during favorable sentiment periods and reducing exposure when fear dominates.

5. Conclusion

The analysis demonstrates a clear connection between market sentiment and trading performance. Monitoring the Fear-Greed Index and adjusting trading behavior accordingly can help traders increase profits, reduce losses, and improve overall efficiency. These insights provide practical guidance for developing sentiment-driven trading strategies in the Bitcoin market.