Web3 Trading Behavior vs Market Sentiment Analysis

1. Introduction

This study analyzes how trader behavior aligns with market sentiment in the cryptocurrency market. By combining Bitcoin Fear & Greed sentiment data with real trading activity from Hyperliquid, we aim to understand how emotions influence profitability, leverage, and trading volume.

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2. Dataset Description

Two datasets were used:

- Bitcoin Fear & Greed Index, classifying market sentiment as Fear or Greed.

- Hyperliquid historical trader data, containing execution details, leverage, and realized PnL.

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3. Methodology

Trading timestamps were aligned with daily market sentiment. Key metrics such as average profit, leverage usage, and trade volume were aggregated and compared across Fear and Greed periods.

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4. Key Insights

- Traders generate **higher average profits during Greed periods**.

- **Leverage usage increases significantly during Greed**, indicating higher risk appetite.

- Fear periods show **lower volume but more conservative leverage behavior**.

- Profit volatility increases during Greed, suggesting higher reward but higher downside risk.

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5. Visual Analysis

Visualizations reveal that Greed periods encourage aggressive trading strategies, while Fear periods promote risk reduction and capital preservation.

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6. Trading Implications

Understanding sentiment-driven behavior can help traders:

- Reduce leverage exposure during extreme Greed.

- Identify contrarian opportunities during Fear-driven sell-offs.

- Improve risk management strategies using sentiment as a market signal.

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7. Conclusion

Market sentiment plays a significant role in shaping trading behavior. Incorporating sentiment indicators into trading strategies can improve decision-making and long-term performance in volatile Web3 markets.