Trader Behavior Insights vs Market Sentiment

Objective

The objective of this analysis is to understand how trader behavior and performance vary under different Bitcoin market sentiment conditions, specifically Fear and Greed. We analyze profitability, trading volume, and win rate using historical Hyperliquid trader data combined with the Bitcoin Fear & Greed Index.

Datasets Used

1. Hyperliquid Historical Trader Data – includes execution-level trade information such as price, size, direction, and realized PnL.
2. Bitcoin Fear & Greed Index – provides daily market sentiment classification.

Methodology

• Normalized and cleaned raw trade-level data.
• Aggregated trades to daily metrics including total PnL, total trade volume (USD), and win rate.
• Merged daily trading metrics with corresponding market sentiment labels.
• Conducted exploratory data analysis using comparative visualizations.

Key Findings

• Trading volume increases significantly during Greed periods, indicating aggressive participation.
• Profitability during Greed is more volatile, suggesting higher risk-taking behavior.
• Fear periods exhibit relatively stable win rates, indicating more disciplined trading behavior.
• Risk exposure, measured via trade volume, is generally lower during Fear periods.

Limitations

The dataset does not explicitly include leverage at the execution level. As a result, trade volume (USD) was used as a proxy for risk exposure.

Conclusion

Market sentiment plays a significant role in influencing trader behavior. Fear periods tend to promote more controlled and consistent trading, while Greed periods encourage higher risk-taking. Incorporating sentiment-aware risk management can lead to improved trading performance and stability.