

Trader Behavior vs Market Sentiment Analysis

Objective

Analyze how trading behavior (profitability, risk, volume, leverage) aligns with overall market sentiment (Fear vs Greed).

Data Sources

- Historical Trader Data (Hyperliquid)
- Bitcoin Market Sentiment Dataset (Fear & Greed Index)

Methodology

- Converted timestamps to datetime
- Merged sentiment with trades by date
- Validated ranges and counts
- Generated summary statistics and visualizations

Key Findings

- Fear sentiment dominates trade volume
- Greed days yield higher average PnL
- Neutral days show lowest win rate
- Extreme Greed trades are fewer but moderately profitable

Visualizations

- Sentiment distribution bar chart

- PnL boxplot by sentiment
- Daily PnL line chart
- Trade size & fee histograms

Conclusion

Trader profitability and behavior are strongly influenced by sentiment. Greed days are most profitable, Neutral days weakest, and Fear drives most activity.