TRADER BEHAVIOR VS MARKET SENTIMENT ANALYSIS

Objective

This analysis examines how trader behavior and performance on Hyperliquid vary across Bitcoin market sentiment regimes (Fear vs Greed).

Data Used

- Hyperliquid Historical Trader Data (211k+ trades)
- Bitcoin Fear & Greed Index (daily sentiment classification

Key Questions

- Do traders behave differently during Fear vs Greed regimes?
- Does increased trading activity improve profitability?
- How do high-performing traders differ from low-performing traders?

Data Preparation

- Converted timestamps to daily trading dates
- Aggregated trades to daily trader-level metrics
- Merged trading activity with sentiment data by date
- Created behavioral metrics including trade frequency, volume, win rate, and directional bias

Metrics Constructed

- Daily PnL per trader
- Trade count per day
- Average trade size

- Total traded volume
- Win rate
- Long/Short ratio
- Performance segmentation (Top 20%, Bottom 20%)
- Activity segmentation (High vs Low activity traders)

Key Findings

- Trading activity peaks during Fear, indicating reactive behavior rather than confident participation.
- Increased trading during Fear does not lead to improved profitability.
- Win rate remains relatively stable across sentiment regimes.
- Top traders maintain consistent engagement across market conditions.
- Low-performing traders overtrade during Fear and under-participate during Greed.

Strategy Implications

- Market sentiment should be used as a risk control filter, not a direct trading signal.
- Reduce impulsive trading frequency during Fear regimes.
- Maintain consistent, rule-based participation rather than sentiment-driven reactions.
- Monitor sudden spikes in trading activity during Fear as a risk warning indicator.

Limitations

- Closed PnL is recorded only when positions are exited and may underrepresent intraday performance.
- Leverage data was not available, limiting direct

risk-adjusted return analysis.

- Drawdown and position-level risk exposure could not be measured.