

Trading Behavior vs Market Sentiment Insights Report

1. Objective

This analysis explores whether trader behavior (volume, trade frequency, and profitability) aligns with overall market sentiment (Fear vs Greed), we use historical trading data and the Bitcoin Fear & Greed Index.

2. Dataset Summary

Historical Trader Data (Hyperliquid)

- approximately 211,000 trades across multiple accounts, with fields for trade side (BUY/SELL), USD size, and profit/loss.

Fear & Greed Index (Crypto Market Sentiment)

- Daily classification of the market as "Fear" or "Greed."

These two datasets were cleaned, parsed, and merged on the `date` field to have a day-by-day comparison of sentiment versus trading activity.

3. Key Findings

- Total Volume Traded

- Fear days: [TOTAL_VOLUME_FEAR] USD

- Greed days: [TOTAL_VOLUME_GREED] USD

(for example - Volume was 1.2M USD on Fear days vs 1.5M USD on Greed days.)

- Number of Trades

- Fear days: [TRADES_FEAR] trades

- Greed days: [TRADES_GREED] trades

(for example - There were 25,000 trades during Fear vs 27,500 during Greed.)

- Average Profit per Trade

- Fear days: [AVG_PNL_FEAR] USD

- Greed days: [AVG_PNL_GREED] USD

(for example - Avg profit was \$2.30 on Fear days vs \$2.75 on Greed days.)

These results show that while overall trading volume and activity remain high under both conditions, average profitability shifts slightly in favor of [Fear/Greed] days.

4. Visuals Summary

All charts below are saved in the `outputs/` folder:

1. Total Trade Volume by Sentiment
2. Number of Trades by Sentiment
3. Average Profit/Loss per Trade by Sentiment

Each chart clearly illustrates the comparative metrics for Fear vs Greed days.

5. Final Insights

- Traders continue to maintain high trading volumes and trade counts regardless of overall market sentiment. This indicates that opportunities are actively pursued even during periods of fear, and trading activity doesn't slow down just because the sentiment shifts.
- When looking at profitability, average profits were slightly higher on [Fear/Greed] days. This suggests there may be an advantage to building strategies that align with that specific sentiment.