

Data Science Report: Trader Behavior vs Market Sentiment

1. Objective

Analyze how trader behavior (profitability, leverage, risk) aligns or diverges from overall market sentiment (Fear vs Greed).

2. Datasets Used

- Bitcoin Fear & Greed Index: Date, Classification
- Hyperliquid Trader Data: Account, Symbol, Size, Side, Execution Price, Leverage, Closed PnL, etc.

3. Methodology

Data was merged on the date field. The merged dataset was analyzed to observe trends in trader behavior during 'Fear' and 'Greed' periods.

4. Key Insights

- During periods of 'Greed', traders exhibited higher average leverage, suggesting aggressive trading behavior.
- However, average PnL was more volatile during 'Fear', possibly due to uncertain market conditions.
- The use of high leverage did not always correlate with higher profits.
- Visuals (boxplots) showed wider spread of PnL in 'Fear' than 'Greed'.

5. Conclusion

Market sentiment significantly influences trader behavior. These insights can help design smarter risk management strategies for automated trading systems.