

# Trader Behavior vs Market Sentiment

## Objective

The objective of this assignment is to analyze the relationship between trader behavior and Bitcoin market sentiment using historical trading data and the Bitcoin Fear & Greed Index.

## Datasets Used

1. Bitcoin Market Sentiment Dataset (Fear & Greed Index)
2. Historical Trader Data from Hyperliquid

## Methodology

Data cleaning, date alignment, and merging were performed in Google Colab. BTC-related trades were filtered, and key performance metrics such as PnL, win rate, risk (trade size), and trading frequency were analyzed across sentiment regimes.

## Key Findings

- Fear regimes showed higher win rates and disciplined trading.
- Extreme Greed resulted in the lowest win rates and negative average PnL.
- Risk-taking increased significantly during Greed phases.
- Market sentiment strongly influenced trader behavior.

## Conclusion

The analysis highlights the importance of sentiment-aware trading strategies. Incorporating market psychology can improve risk management and trading performance.

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