Executive Summary

This analysis examines the relationship between Bitcoin market sentiment (Fear & Greed Index) and trader behavior and performance on Hyperliquid. By merging daily sentiment classifications with over 211,000 trade records, we evaluated how profitability, win rates, trading frequency, position sizing, and directional bias vary across different market regimes.

The results indicate that trader performance is strongly regime-dependent. Profitability peaks during Extreme Greed, where average PnL (67.89) and win rate (46.5%) are highest. This suggests that traders benefit significantly from strong bullish momentum environments. However, performance does not follow a strictly monotonic pattern from Extreme Fear to Extreme Greed. Notably, Fear regimes outperform standard Greed periods, indicating that volatility-driven market conditions may provide more exploitable opportunities than stable upward trends alone.

Behaviorally, traders appear more volatility-responsive than purely momentum-driven. Fear regimes exhibit the highest trading activity (61,837 trades) and the largest average position sizes (7,816 USD), reflecting aggressive participation during uncertain conditions. In contrast, Extreme Greed shows smaller average position sizes despite higher profitability, suggesting more controlled exposure during bullish environments. Additionally, win rates remain below 50% across all sentiment states, implying that profitability is driven by asymmetric payoff structures — fewer but larger winning trades outweigh more frequent losses.

Directional analysis reveals a slight sell-side dominance across most regimes, including Greed and Extreme Greed. This may indicate profit-taking or contrarian positioning rather than simple trend-following behavior.

Overall, the findings highlight the importance of sentiment-aware risk management. Regime-based position sizing and participation strategies can enhance capital efficiency, mitigate drawdowns during volatile Fear periods, and optimize momentum capture during Extreme Greed conditions.