Summary: Sentiment-Conditioned Trader Behavior Analysis

Overview

This research evaluates whether market sentiment regimes (Fear & Greed Index) systematically influence trader behavior and performance on Hyperliquid. The objective is to determine if sentiment acts as a structural regime variable affecting profitability, directional positioning, leverage allocation, and participation intensity.

Methodology

• Standardized and merged trade-level execution data with daily sentiment classifications.

• Engineered performance metrics including daily PnL, win rate, leverage usage, trade frequency, and long/short ratio.

• Conditioned analysis on five sentiment regimes: Extreme Fear, Fear, Neutral, Greed, Extreme Greed.

• Applied statistical validation using t-tests, chi-square tests, OLS regression, and effect size estimation.

• Segmented traders by activity level, leverage usage, and profitability persistence.

Key Findings

• Trading performance exhibits statistically significant variation across sentiment regimes.

• Participation intensity increases during Fear regimes, consistent with volatility-driven repositioning.

• Directional bias shifts significantly with sentiment (chi-square test rejects independence).

• Leverage and position sizing adjust dynamically across emotional states.

• Most traders display positive expectancy, though dispersion is driven by leverage and regime sensitivity.

Strategic Implications

• Implement regime-aware exposure scaling.

• Increase momentum allocation during Greed regimes.

• Reduce leverage during volatility expansion in Fear states.

• Monitor directional crowding as a potential contrarian signal.

• Incorporate sentiment as a conditioning variable in systematic allocation models