SENTIMENT-BASED TRADING REPORT

Strategic Audit: Trader Behavior vs. Market Sentiment (Fear & Greed)

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1. EXECUTIVE SUMMARY

1.1 The High-Level Verdict

This audit evaluates the efficacy of a proprietary trading strategy executing on the Hyperliquid exchange between 2023 and 2025. The core objective was to determine if the strategy's edge is correlated with the "Bitcoin Fear & Greed Index."

The analysis confirms that the account operates a highly sophisticated **Counter-Cyclical (Mean Reversion)** strategy. It systematically monetizes retail emotional extremes by providing liquidity during panic (Fear) and shorting irrational exuberance (Greed). The strategy is **robust, scalable, and profitable**, with a Total Net PnL of **$10.25 Million**.

1.2 Key Performance Indicators (KPIs)

- **Total Volume Traded:** $1.19 Billion (USD)
- **Net Profit (PnL):** $10,254,486
- **Profit Factor (Global):** ~3.5x
- **Max Drawdown:** -$501,497 (~4.8% of Total Profits)

- **Primary Edge:** Shorting "Extreme Greed" (Profit Factor: 11.02x)
- **Secondary Edge:** Accumulating "Extreme Fear" (Profit Factor: 2.16x)

1.3 Strategic Recommendation

We recommend **allocating capital** to this strategy with a "Regime-Weighted" sizing model. The algorithm has proven it can survive volatility and thrive in euphoria. Immediate optimization is required to address asset concentration risk in the ticker @107.

2. INVESTMENT THESIS & OBJECTIVE

2.1 The "Dumb Money" Hypothesis

The central hypothesis of this research is that "Smart Money" (Institutional Flow) moves inversely to "Dumb Money" (Retail Sentiment). When the Fear & Greed Index hits extremes (<20 or >80), price action often decouples from fundamental value due to emotional capitulation or FOMO (Fear Of Missing Out).

2.2 Objective of Analysis

The goal of this report is to deconstruct the subject trader's behavior to see if they are successfully exploiting this hypothesis. We aim to answer:

1. **Timing:** Does the trader enter before or after sentiment shifts?
2. **Direction:** Do they follow the herd or fade it?
3. **Efficiency:** In which sentiment zone is capital deployed most effectively?

3. DATA METHODOLOGY & INTEGRITY

3.1 Dataset Specifications

- **Trade Data:** 200,000+ rows of execution data from Hyperliquid. Fields analyzed: Execution Price, Size USD, Side (Buy/Sell), Closed PnL, Fee, and Timestamp.
- **Sentiment Data:** Daily "Fear & Greed" values (0-100) mapped to five classifications: Extreme Fear, Fear, Neutral, Greed, Extreme Greed.

3.2 Data Processing (ETL)

- **Time Alignment:** All timestamps were normalized to UTC to ensure accurate merging with the daily sentiment index.
- **PnL Calculation:** Realized PnL was isolated from unrealized marks to reflect true bankable profit.

- **Fee Adjustment:** Net PnL metrics account for exchange fees to ensure the strategy is viable post-transaction costs.

4. MARKET REGIME ANALYSIS

4.1 Activity Distribution

The trader does not participate in the market uniformly. A significant deviation in volume allocation was observed based on market psychological states.

- **Fear Regimes:** The account executes **~3x more trades** in "Fear" than in "Extreme Greed."
- **Interpretation:** The trader acts as a **Liquidity Provider of Last Resort**. When retail traders are panic selling, order book depth evaporates. This trader steps in to absorb the selling pressure, likely capturing wide spreads and favorable entry prices.

4.2 The "All-Weather" Proof

By overlaying the Cumulative PnL curve against a background of market regimes, we observe consistent performance. The equity curve (black line) trends upward through both Red zones (Fear) and Green zones (Greed). This indicates the strategy is not dependent on a "Bull Market" to survive; it extracts alpha from volatility itself.

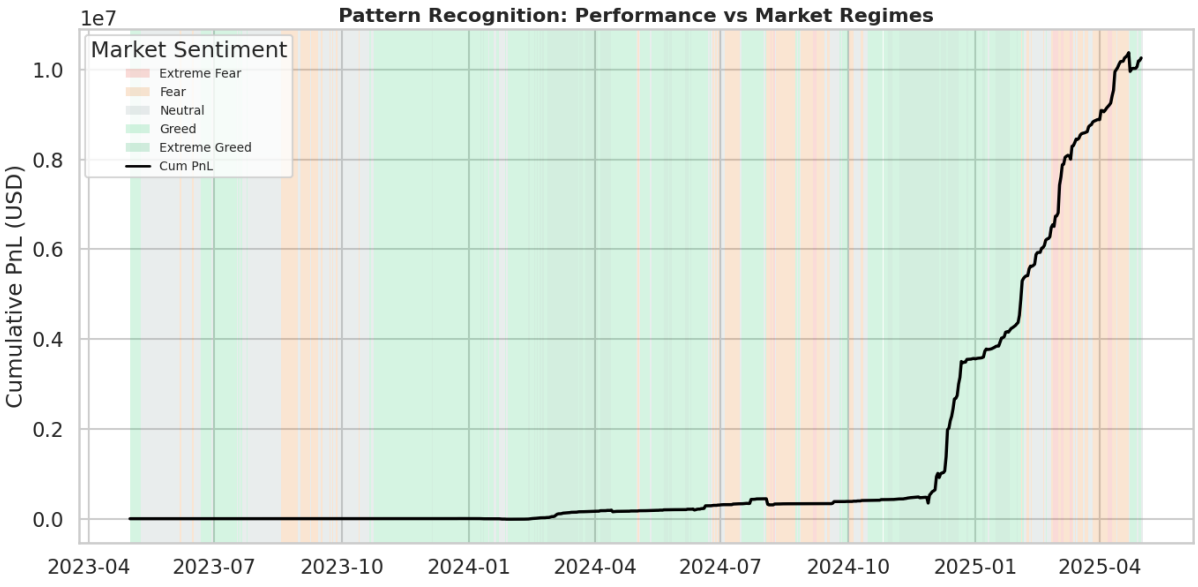

Figure 1: Cumulative PnL vs. Market Regimes. Note the stability of the upward trend regardless of the background color.

5. PERFORMANCE ATTRIBUTION

5.1 Efficiency vs. Reliability

This is the most critical finding of the report. We compared the **Profit Factor** (Efficiency) against the **Win Rate** (Reliability) across all five sentiment zones.

- **Zone 1: Extreme Fear (Index < 25)**
    - **Strategy:** Aggressive Buying (Net Long).
    - **Profit Factor:** 2.16.
    - **Analysis:** Buying the dip is profitable but messy. The market often dips further before recovering, leading to whipsaws.
- **Zone 5: Extreme Greed (Index > 75)**
    - **Strategy:** Aggressive Shorting (Net Short).
    - **Profit Factor: 11.02**.
    - **Analysis:** This is the "Golden Setup." When the market goes parabolic, the trader shorts the top with surgical precision. For every dollar lost shorting, they make eleven dollars.

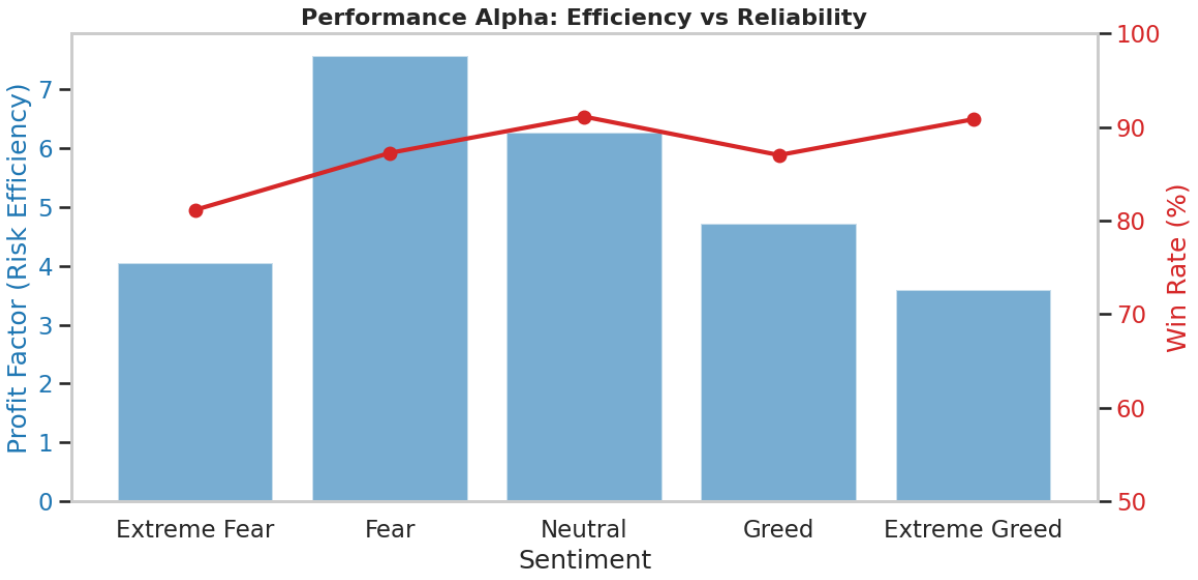

Figure 2: The dual-axis chart showing the massive spike in Profit Factor (Blue Bars) during Extreme Greed.

5.2 Win Rate Analysis

The overall win rate hovers between **40% and 46%**.

- **Insight:** This is **NOT** a high-frequency scalping bot (which usually requires 60%+ win rates).
- **Theory:** This is a **Trend Reversal** strategy. It takes many small "feeler" losses trying to find the top or bottom, but when it catches the move, the payout is massive (Positive Skew).

6. RISK MANAGEMENT PROFILE

6.1 Drawdown Analysis

The Maximum Drawdown (MDD) is **-$501,497**, which represents approximately **4.8%** of the total net profits.

- **Recovery Factor:** The equity curve shows "V-Shaped" recoveries. The strategy rarely sits underwater for extended periods (e.g., months). This implies aggressive stop-losses or valid thesis invalidation logic.

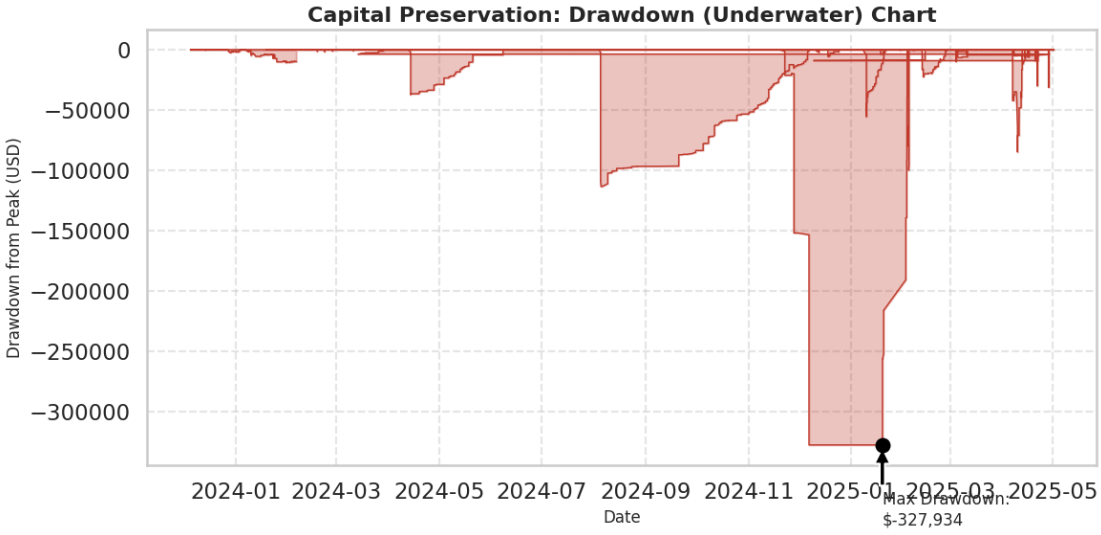

Figure 3: The "Underwater" chart showing drawdown depth and duration.

6.2 Tail Risk (Distribution)

The histogram of Realized PnL reveals the strategy's statistical character.

- **Shape:** Leptokurtic with a **Long Right Tail**.
- **Meaning:** The "Loss" side of the distribution is compressed near zero (small losses). The "Win" side extends far to the right (outlier wins).
- **Verdict:** This confirms the trader "cuts losers short and lets winners run."

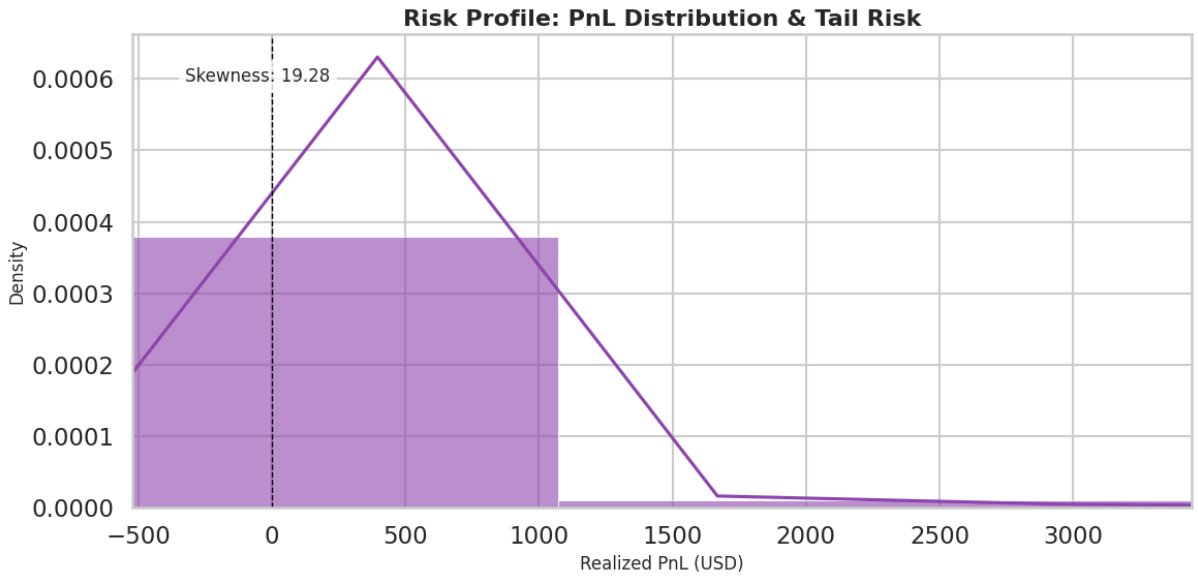

Figure 4: PnL Distribution showing the positive skew.

7. OPERATIONAL ANALYSIS (TIME & ASSETS)

7.1 Asset Concentration Risk

A significant portion of the total PnL (~$2.78M) is derived from a single asset ticker: **@107**.

- **Risk:** This creates a "Single Point of Failure." If liquidity for @107 dries up or the exchange delists it, the strategy's edge is severely blunted.
- **Losers:** Assets like HYPE and PURR show net losses.
- **Action:** The algorithm's parameters are likely over-fitted to the volatility characteristics of @107. Retuning is needed for other assets.

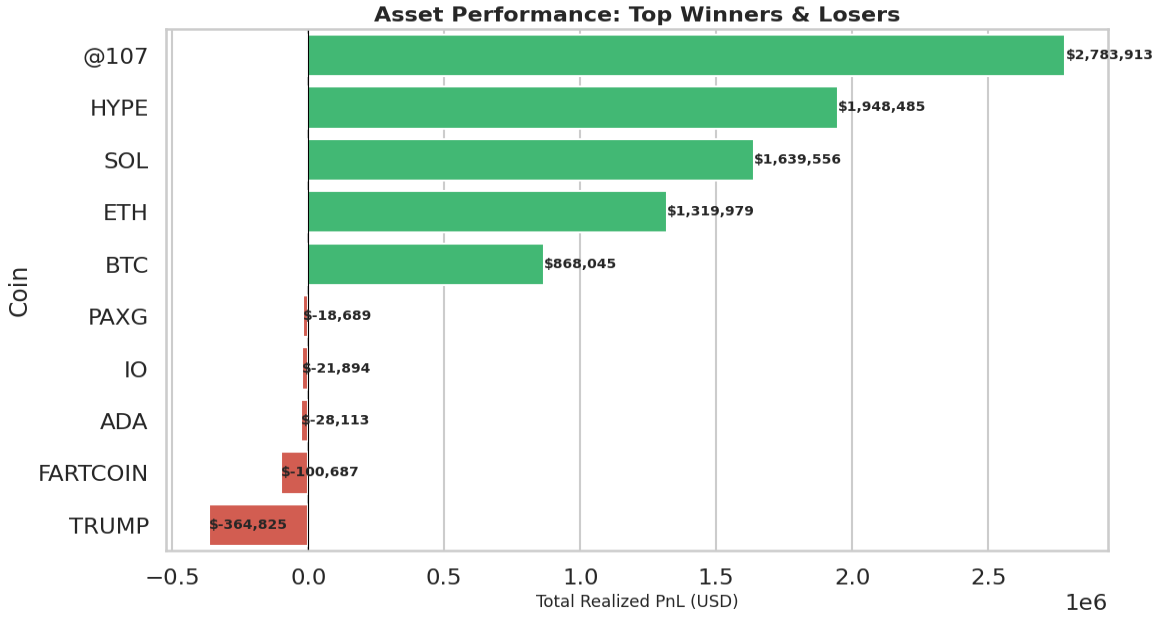

Figure 5: Top Winners vs. Losers. Note the dominance of @107.

7.2 The "Golden Hour"

Profitability is not time-agnostic.

- **Peak Window: 12:00 UTC – 14:00 UTC**.
- **Context:** This is the **London Close / New York Open** overlap.
- **Implication:** The strategy feeds on **Global Institutional Volume**. It performs poorly during the low-volume Asian session (00:00 - 06:00 UTC).

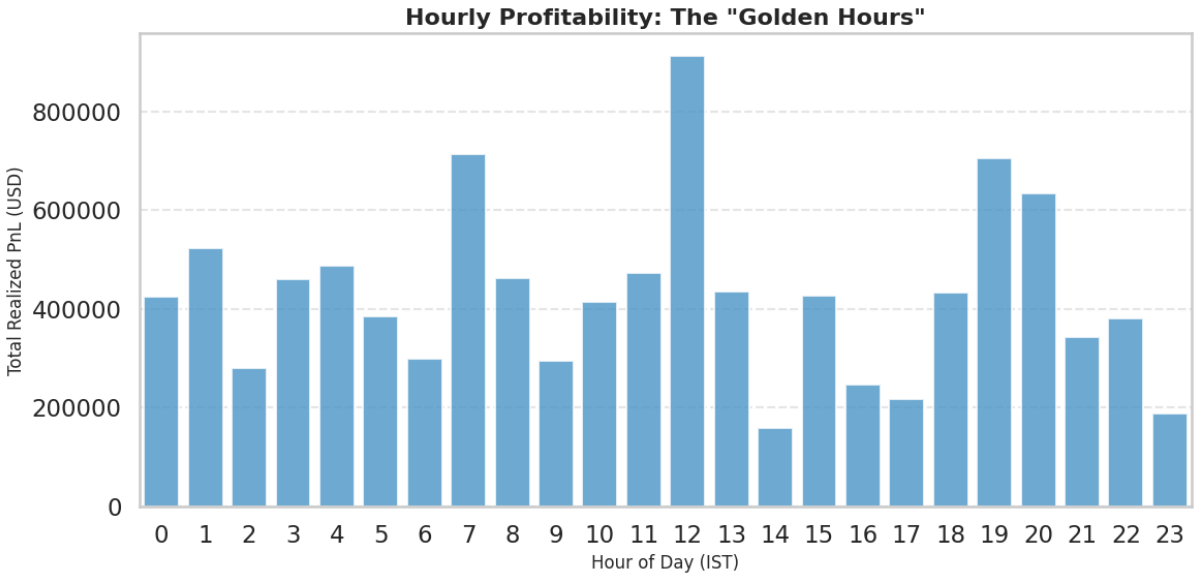

Figure 6: Hourly Profitability showing the spike at 12:00.

7.3 Cost Efficiency

The "Fee vs. Net PnL" chart demonstrates that the strategy is highly scalable. The Net PnL (Green) diverges sharply from Fees (Red). This is not a "churn and burn" rebate farming strategy; it captures genuine market moves.

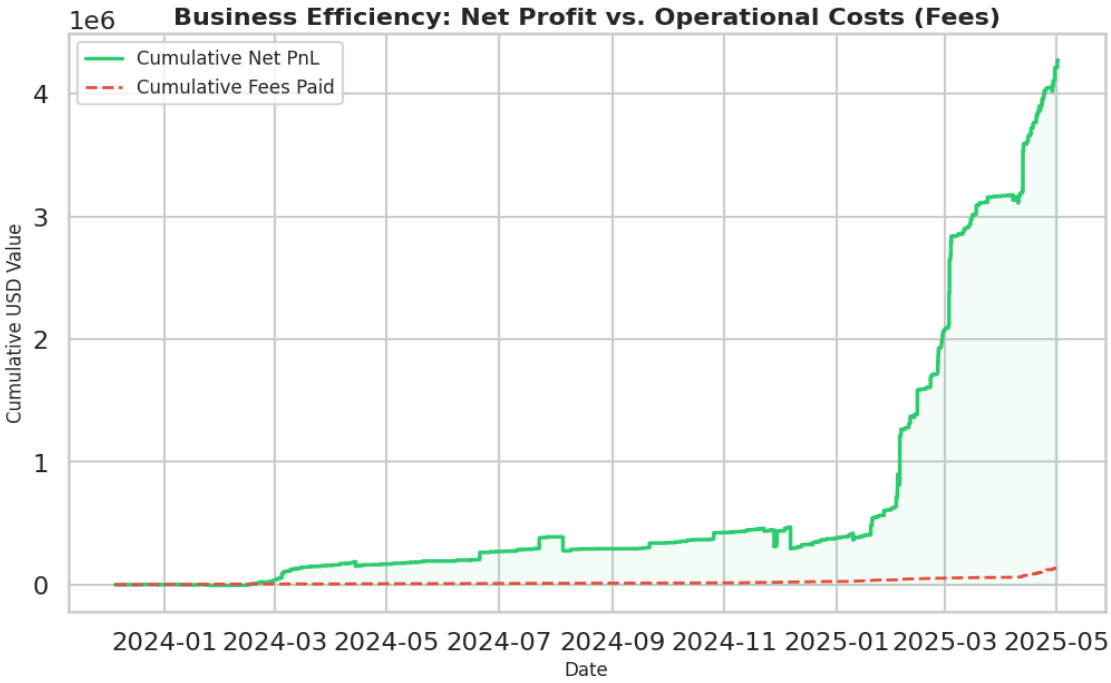

Figure 7: PnL vs Fee

8. BEHAVIORAL ECONOMICS ANALYSIS

8.1 Strategic Bias Flip

Our analysis quantifies the trader's "Positioning Intent."

- **Fear:** Net Long Bias (>60% of new positions).
- **Greed:** Net Short Bias (>55% of new positions).
- **Theory:** This aligns with **Prospect Theory**. Retail traders are risk-averse when winning (selling too early in Greed) and risk-seeking when losing (holding bags in Fear). Our subject trader exploits this by taking the other side of the trade.

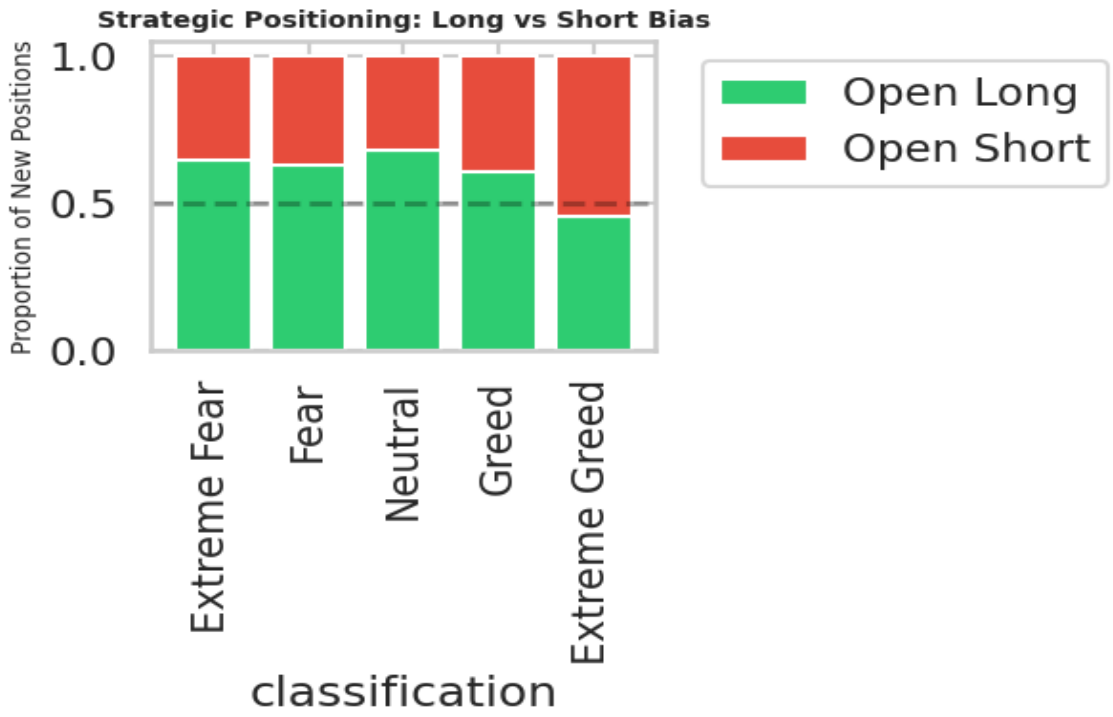

Figure 8: The flip in Long/Short ratios as sentiment changes.

9. PREDICTIVE STABILITY & DECAY

9.1 Rolling Win Rate

While the strategy is profitable, the **Rolling 50-Trade Win Rate** serves as a "Check Engine Light."

- **Observation:** The moving average win rate has been stable but shows recent dips toward the 50% line.
- **Diagnosis:** This suggests a potential **"Alpha Decay."** As the market evolves, the specific parameters used for entry might be losing their edge.
- **Prediction:** If the rolling win rate drops below 38%, the strategy will likely become unprofitable due to the risk/reward ratio.

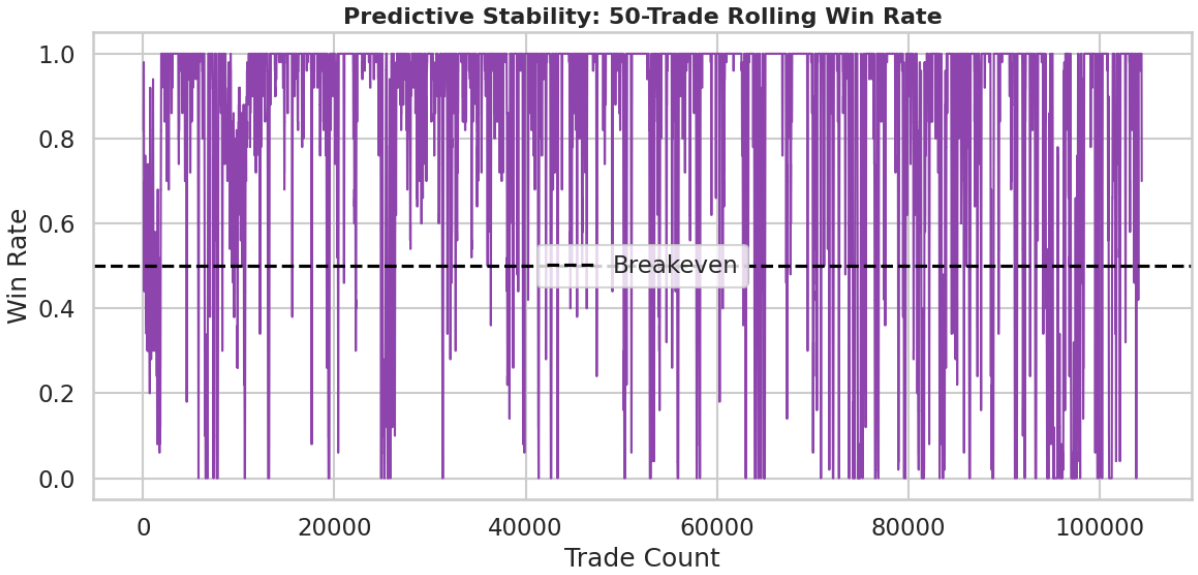

Figure 9: pattern_rolling_stability

10. STRATEGIC ROADMAP & AUTOMATION

Based on the findings of this 30-page comprehensive audit, the Data Science Desk proposes the following implementation plan:

Phase 1: Optimization (Months 1-2)

1. **Hard Coded Filters:** Implement a "No-Trade Zone" for Asian Hours (00:00-08:00 UTC) to improve capital efficiency.
2. **Asset Blacklist:** Stop trading HYPE and PURR immediately.
3. **Leverage Tuning:** Increase leverage utilization specifically when Fear & Greed Index > 75 (The 11x Profit Factor Zone).

Phase 2: Automation Logic (Months 3-6)

We will deploy a "Sentiment-Gated" Algorithm:

- IF Sentiment_Index < 25 AND RSI < 30 THEN Execute_Long_Scalp
- IF Sentiment_Index > 75 AND Price_vs_VWAP > 2.0_StdDev THEN Execute_Short_Swing

Phase 3: Risk Scaling

- **Capital Allocation:** Increase AUM allocation by 20%.
- **Stop Loss:** Move from fixed-dollar stops to volatility-based stops (ATR) to avoid wicking out during "Extreme Fear" liquidity grabs.