Methodology

Trade-level data was converted to daily frequency and aggregated at the trader-date level. For each trader, the following daily metrics were computed: total PnL, trade count, average trade size (USD), win rate, long ratio (BUY share), and a drawdown proxy (cumulative PnL relative to rolling maximum).

These metrics were merged with the Bitcoin Fear/Greed Index classification by date. Performance and behavior were compared across sentiment regimes. Traders were segmented into Frequent vs. Infrequent (based on median trade count) and Consistent vs. Inconsistent (based on median win rate) to analyze regime-dependent differences.

Key Insights

1. Fear Regimes Increase Risk and Performance Dispersion
During Fear periods, average daily PnL declines, drawdowns deepen, and PnL volatility increases. This suggests traders either mis-time entries or increase exposure during uncertainty, leading to wider performance dispersion.

2. Greed Drives Overtrading Without Improving Profitability
During Greed regimes, trade frequency and long bias increase while win rates decline. Increased activity does not improve outcomes, indicating overconfidence and sentiment-driven overtrading rather than informational edge.

3. Discipline Differentiates Outcomes
Frequent traders experience larger PnL swings during Greed, while historically consistent traders show smaller drawdowns during Fear. Trader discipline moderates the impact of extreme sentiment regimes.

Strategy Recommendations

Strategy 1: Sentiment-Based Risk Adjustment
Reduce position size during Fear (approx 30%) and enforce exposure caps during Greed. This mitigates volatility-driven drawdowns and prevents overexposure during euphoric conditions.

Strategy 2: Behavior-Filtered Trade Intensity
Allow increased trade frequency during Greed only for above-median win-rate traders, and restrict leverage for below-median consistency traders during Fear. Conditioning activity on historical discipline improves risk-adjusted stability.