

Bitcoin Market Sentiment Analysis

Final Summarized Insights & Explanations

Project Overview

This report analyzes the relationship between Bitcoin market sentiment (Fear & Greed Index) and trader performance.

By correlating historical trading data with sentiment classifications, we uncovered patterns that challenge conventional wisdom.

Key question: Does buying in 'Extreme Fear' guarantee profit, or does momentum in 'Extreme Greed' offer better efficiency?

Key Performance Metrics

classification	Total_PnL	Avg_PnL	win_rate	Risk_velocity
Fear	\$3,357,155.44	\$54.29	42.08%	935.36
Extreme Greed	\$2,715,171.31	\$67.89	46.49%	766.83
Greed	\$2,150,129.27	\$42.74	38.48%	1116.03
Neutral	\$1,292,920.68	\$34.31	39.70%	517.12
Extreme Fear	\$739,110.25	\$34.54	37.06%	1136.06

Insights:

- 1. Extreme Greed Efficiency: Highest Win Rate (46.5%) and Avg PnL (\$67.89). This suggests strong momentum trading opportunities during these periods.
- 2. Volume in Fear: The 'Fear' sentiment accumulated the most Total PnL (\$3.35M), driven by higher trading volume rather than per-trade efficiency.
- 3. Caution in Extreme Fear: Lowest Win Rate (37%), contradicting simple 'buy the dip' strategies for this specific dataset.

Performance Visualization



Figure 1: Cumulative PnL analysis across different market sentiments.