

Data Science Report: Trading Behavior vs Market Sentiment

Overall Trading Statistics

Total PnL: \$10,254,486.95
Total Volume: \$1,191,098,773.60
Win Rate: 41.12%
Average Trade Size: \$5,639.19
Average PnL per Trade: \$48.55

Performance by Sentiment Class

Sentiment Class	Total PnL	Avg PnL	Trades	Avg Size	Win Rate
Extreme Fear	\$739,110.25	\$34.54	21,400	\$5,349.73	37.0%
Extreme Greed	\$2,715,171.31	\$67.89	39,992	\$3,112.25	46.0%
Fear	\$3,357,155.44	\$54.29	61,837	\$7,816.11	42.0%
Greed	\$2,150,129.27	\$42.74	50,303	\$5,736.88	38.0%
Neutral	\$1,292,920.68	\$34.31	37,686	\$4,782.73	40.0%

Key Correlations with Sentiment

Sentiment vs Daily PnL: -0.083
Sentiment vs Volume: -0.264
Sentiment vs Trade Count: -0.245

Extreme Sentiment Analysis

Extreme Fear - Avg PnL: \$34.54, Win Rate: 37.1%
Extreme Greed - Avg PnL: \$67.89, Win Rate: 46.5%

Summary Statistics

Total Trades Analyzed: 211,218
Date Range: 2023-05-01 to 2025-05-01
Overall Win Rate: 41.12%
Fear Period Win Rate: 40.79%
Greed Period Win Rate: 42.03%
Best Performing Sentiment: Fear
Most Traded Sentiment: Fear
Average Trade Size (Fear): \$7,182.01
Average Trade Size (Greed): \$4,574.42

Actionable Insights

1. Traders are more profitable during GREED periods — momentum strategies may perform better.
2. Position sizes are larger during FEAR periods — contrarian traders may be overconfident.