

Trader Behavior Insights — Data Science Report

Overview

This report analyzes relationships between market sentiment (Fear/Greed Index) and trader behavior using Hyperliquid historical data. The goal was to assess whether sentiment influences profitability, volume, or performance patterns.

Data Preparation

Both datasets were cleaned, normalized, and merged on daily timestamps. Timestamps were converted to UTC, sentiment labels standardized, and trader metrics aggregated per day.

Feature Engineering

Daily features included volume, trade count, net PnL, winrate, and average position size. Leverage was unavailable in the dataset and remains blank.

Exploratory Insights

PnL exhibited high variance across days, but no consistent differences between Fear and Greed regimes were observed. Volume trends also did not show strong sentiment dependence.

Statistical Testing

— Mann–Whitney U: No significant difference in PnL between Fear and Greed. — Chi-square: No difference in proportion of profitable days. — Lag correlations: All correlations from lag 0–7 had $|r| < 0.12$ and p-values > 0.15 .

Conclusion

Sentiment does not meaningfully explain or predict trader PnL in this dataset. Behavioral patterns appear independent of sentiment regime shifts.