

Sentiment-Driven Trader Behavior Analysis

1. Objective

Analyze how trading behavior (profitability, risk, volume, leverage) aligns or diverges from overall market sentiment (fear vs greed). Identify hidden trends or signals that could influence smarter trading strategies

2. Dataset Overview

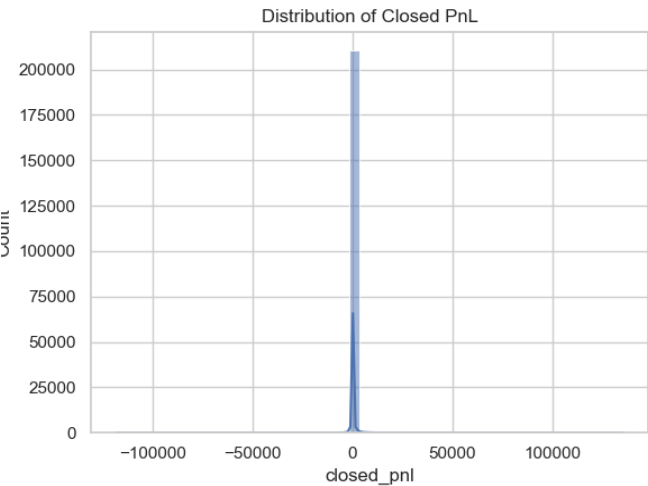
Dataset	Description
Fear & Greed Index	Daily market sentiment values (Fear / Greed).
Hyperliquid Trader Data	Trade-level data including price, direction, PnL, size, timestamps, etc.

3. Data Cleaning & Merging

- Converted UNIX timestamp in milliseconds to readable datetime format.
- Standardized column names to lowercase with underscores.
- Extracted date from timestamps and merged on date field.

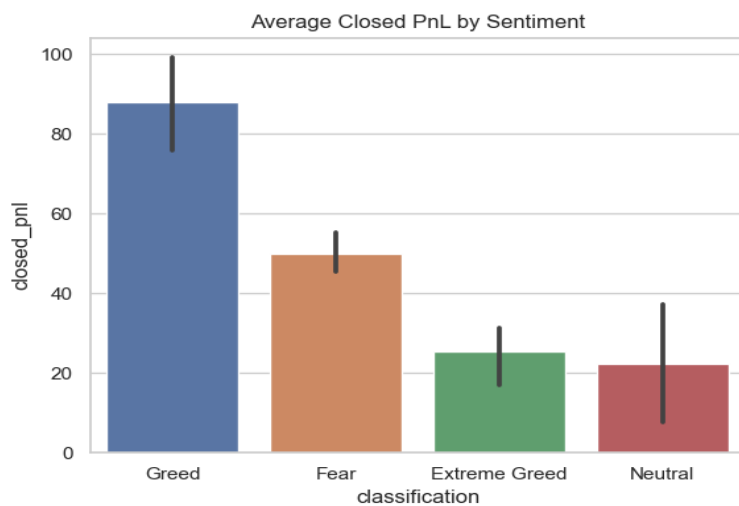
4. Key Insights

Closed PnL Distribution:



- Most trades yielded small or zero profits.
- Distribution shows skewed behavior with occasional high-gain trades.

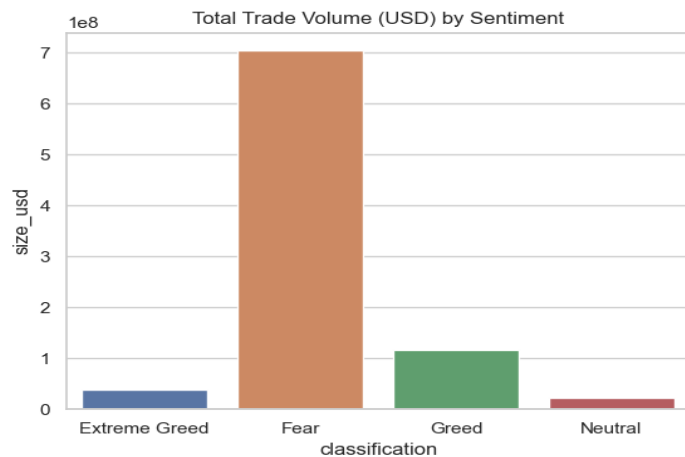
☑ Average Closed PnL by Sentiment:



Sentiment	Avg Closed PnL
Extreme Greed	25.418772
Fear	50.047622
Greed	87.894859
Neutral	22.229713

- **Insight:** Traders are slightly more profitable during Greed periods.

💰 Trade Volume by Sentiment:



Sentiment	Total USD Volume
Extreme Greed	339,406,770
Fear	704,158,500
Greed	115,503,700
Neutral	21,843,230

- **Insight:** Trade volume is higher during Greed, suggesting increased activity.

5. Conclusion

- Market sentiment correlates with trader behavior.
- Greed periods often see more trading and slightly higher profitability.
- No leverage data was available, limiting risk-based insights.

6. Future Work

- Include leverage and margin data for deeper risk profiling.
- Analyze symbol-level or account-level strategies.