DSReport — Trade Performance vs Fear & Greed Index

Objective:
Analyze trader performance (Closed PnL) and evaluate how it changes across market sentiment using the Fear & Greed Index. Summarize insights and propose sentiment-based strategy adjustments.

Datasets

- historical_data.csv (trades): 211,224 rows × 16 columns
  Key fields used: Account, Timestamp IST, Closed PnL, Coin, Side
- fear_greed_index.csv (sentiment): 2,644 rows × 4 columns
  Key fields used: date, value (0–100), classification

Data quality checks

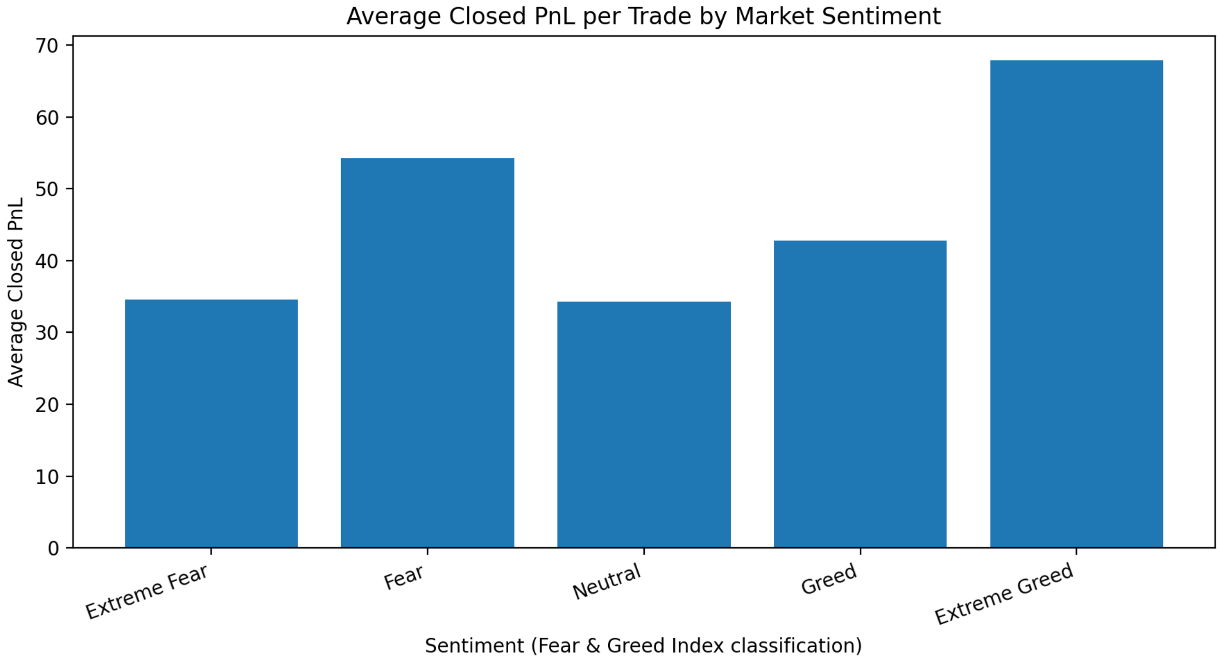
- No missing values found in the analyzed columns.
- No duplicate rows detected in either dataset.

Data preparation

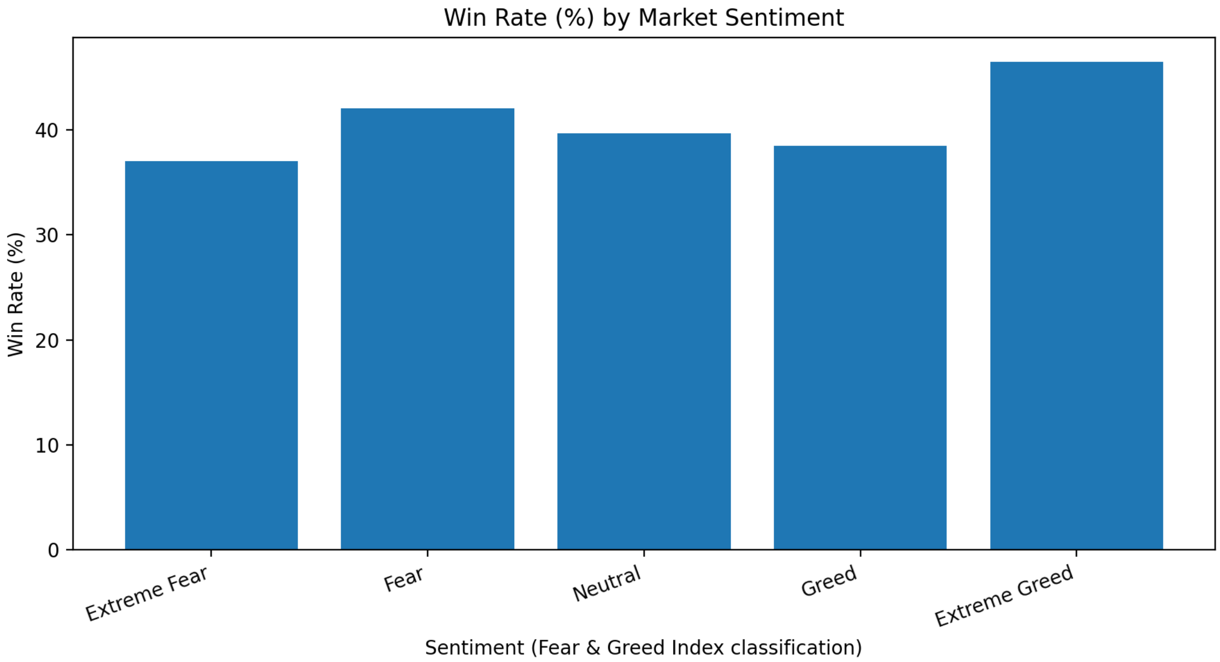
- Converted fear_greed.date to datetime.
- Converted historical.Timestamp IST to datetime (format: %d-%m-%Y %H:%M).
- Created trade_date from Timestamp IST (normalized to daily date).
- Merged sentiment into trades by trade_date.

Key Results (Charts)

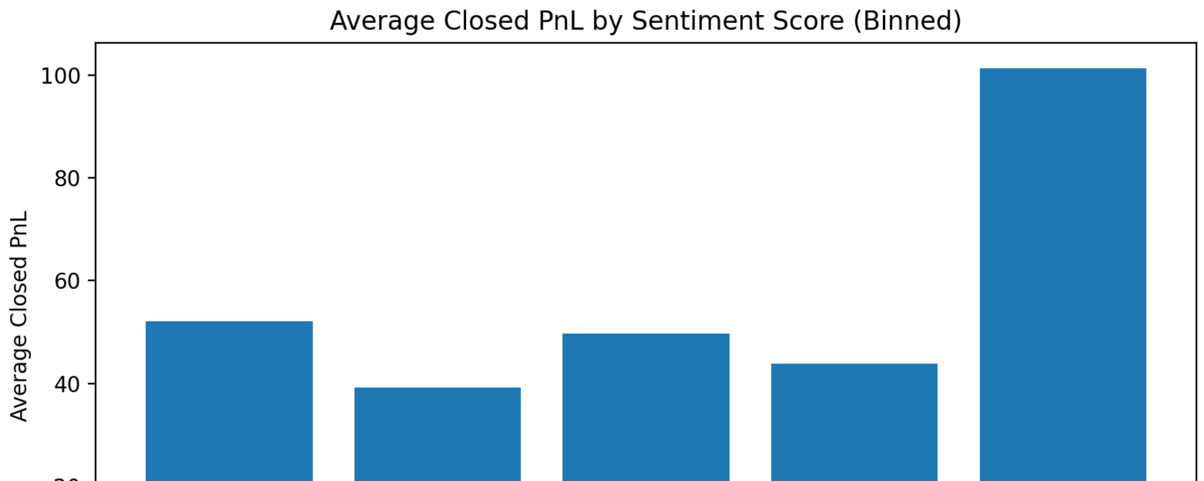
Average Closed PnL per Trade by Market Sentiment



Win Rate (%) by Market Sentiment



Average Closed PnL by Sentiment Score (Binned)



Summary Tables

Overall Metrics

win_rate_%: 41.12648183918494

loss_rate_%: 8.30350717721471

breakeven_%: 50.57001098360034

total_pnl: 10296958.943436

Performance by Sentiment Classification

classification	trades	total_pnl	avg_pnl	median_pnl	win_rate_%
Fear	61837	3357155.441642	54.2903996254993	0.0	42.08
Greed	50303	2150129.272951	42.743559488519577	0.0	38.48
Extreme Greed	39992	2715171.310673	67.892861339092820	0.0	46.49
Neutral	37686	1292920.67555	34.307718398078886	0.0	39.7
Extreme Fear	21400	739110.24849	34.537862078971960	0.0	37.06

Performance by Sentiment Value Bins

sent_bin	trades	avg_pnl	win_rate
0-20	13139	52.09224492419515	41.60895045285029
20-40	59426	39.15884879182512	40.4957426042473
40-60	58035	49.73766233459119	39.86215214956491
60-80	66303	43.84189176174532	41.31638085757809
80-100	14315	101.2657360724415	47.52357666783095

Top Traders by Total PnL (Top 10 shown)

Account	trades	total_pnl	avg_pnl	median_pnl	win_rate_%
0xb1231a4a2dd02f22	14733	2143382.597689	145.48174829898866	0.0	33.71
0x083384f897ee0f19	3818	1600229.819979	419.12776845966470	0.0	35.96
0xbaaaf6571ab7d571	21192	940163.80622	44.364090516232544	0.0	46.76
0x513b8629fe877bb5	12236	840422.555216	68.684419354037260	0.0	40.12
0xbee1707d6b44d4d5	40184	836080.553077	20.806304824731235	0.0	42.82
0x4acb90e786d897ec	4356	677747.050643	155.58931373806246	0.0	48.62
0x72743ae2822edd65	5590	429355.565915	270.03494711635220	0.0	34.59
0x430f09841d65beb3	1237	416541.872341	336.735547567502	0.0	48.42
0x72c6a4624e1dffa7	1430	403011.504159	281.82622668461540	0.0	30.63
0x75f7eeb85dc639d5	9893	379095.406711	38.3195599627009	7.722845	81.09

Strategy Recommendations (2 rules)

Rule 1 — Aggressive mode in Extreme Greed

- If sentiment classification is Extreme Greed (or value bin 80–100):
  consider higher position sizing / faster entry, but keep strict risk limits.

Rule 2 — Defensive mode in 20–40 sentiment band

- If sentiment value is in 20–40 (low-performing band):
  reduce risk (smaller size), tighten stops, and avoid overtrading.

Conclusion

Trader performance varies by market sentiment.
Strongest performance occurs at 80–100 / Extreme Greed,
while weakest occurs in the 20–40 band.
Sentiment-aware risk adjustments can plausibly improve results.