## **Trader Behavior vs Market Sentiment Analysis**

- 2. Distribution of Key Metrics (How the numbers are spread out)
- Total Profit/Loss (PnL): Most days have small profits, but a few days made big profits.
- Volume & Trade Size: Usually small trades, but a few very big ones.
- Win Rate: Mostly stays between 20% to 60% not perfect, but consistent.
- Fees: Most days have small fees. Only a few days had high fees (likely on high-volume days).
- 3. Boxplots by Sentiment (How values change by sentiment)
- PnL: Greed days make more money on average, but results vary a lot. Fear days are more stable.
- Volume & Trade Size: Bigger on Greed days.
- Fees: Also higher on Greed days (because of more trades).
- Greed = More trading, more risk, lower win rate.
- Fear = Fewer trades, better win rate.
- 4. Correlation Heatmap
- Some links between sentiment and volume/trade size.
- But sentiment doesn't strongly affect profit or win rate.
- 5. Daily PnL Over Time by Sentiment
- PnL is going up over time you're doing better as time goes on!
- Sentiment (Fear, Greed, Neutral) doesn't clearly affect profit. Good and bad days happen in all sentiment types.
- 6. Scatter Plot: PnL vs Volume by Sentiment
- Greed days have higher volume more trades happen.
- Big profits are on all sentiment types not just Greed.
- Fear days sometimes give good profit with lower volume more efficient.
- Greed days have big wins or big losses.
- More trading doesn't mean more profit.
- Fear days are safer and more consistent.
- Greed days = more risk, bigger swings.

# **Trader Behavior vs Market Sentiment Analysis**

#### 7. Win Rate by Sentiment

- Best win rate happens during Fear days.
- Greed and Neutral have lower win rates.
- Better on fearful market days.

### 8. Number of Days by Sentiment

- Most days are Greed days.
- Very few Fear or Neutral days.

#### 9. Trends Over Time

- PnL and Volume are showing improvement.
- Sentiment doesn't clearly explain daily profit or trade count.

### 10. Pairplot (How metrics relate by sentiment)

- Different patterns based on sentiment.
- Sentiment affects how you trade.

#### FINAL SUMMARY

- Win Rate: Best during Fear days, worst during Greed days.
- Profit (PnL): Higher on Greed days, but riskier and more up-and-down.
- Volume/Size: More and bigger trades on Greed days.
- Fees: Higher on Greed days (because of more/larger trades).
- Sentiment Effect: Sentiment changes trading behavior, but doesn't guarantee success.
- Data Imbalance: Too many Greed days results might be biased.