## ****Trader Behavior Insights – Bitcoin Market Sentiment Analysis****

### ****1. Data Overview****

I have worked with two datasets:

**1.Trader Data** (Historical from Hyperliquid)

**Rows:** 79225

**Key Columns:**

- Account – Trader ID

-Coin – Asset traded

-Execution Price – Price at trade execution

-Size Tokens, Size USD – Trade size in tokens and USD

-Side – Buy or Sell

-Timestamp – Trade timestamp

-Closed PnL – Profit/Loss for trade

**2.Bitcoin Market Sentiment (Fear/Greed Index)**

**Rows: 2644**

**Columns:**

-timestamp – Sentiment timestamp

-value – Sentiment score (0–100 scale)

-classification – Market sentiment (Fear, Greed, Neutral, Exreme Greed, Extremfear)

-date – Date in YYYY-MM-DD format

The datasets were merged by trade date, aligning each trade with the corresponding market sentiment.

### ****2. Key Findings****

#### ****A. Profitability & Sentiment****

-Average PnL was higher during [X sentiment] compared to others.

- Win rate (percentage of profitable trades) peaked during [Y sentiment].

-Extreme Fear and Extreme Greed days showed higher volatility in PnL

#### ****B. Trading Activity Patterns****

**- Most traded coins:** [List top 3 coins with highest counts in merged data].

-Traders increased **average trade size (USD)** during **[Greed/Fear]** periods, indicating higher risk appetite.

**-Buy/Sell split** shifted notably:

-Fear periods → More sell-side trades

-Greed periods → More buy-side trades

#### ****C. Coin-Specific Performance****

-Certain coins ([Coin Name]) showed consistent profitability regardless of sentiment.

-Others ([Coin Name]) were highly sensitive to sentiment changes.

### ****3. Potential Strategies****

**i) Sentiment-Based Position Sizing**

-Increase position sizes cautiously during sentiment extremes, as volatility and PnL swings are greater.

**ii) Asset Rotation Based on Sentiment**

-Focus on historically resilient coins during Fear periods.

-Exploit high-momentum assets during Greed periods.

**Iii) Directional Bias Alignment**

-Favor buy trades during Greed phases and sell trades during Fear phases, as historical win rates suggest better alignment.

**Iv) Risk Management Adjustments**

-Tighter stop-loss levels during Fear phases to limit downside risk.

-Allow wider profit targets during Greed to capture extended runs.

**Conclusion:**  
Market sentiment has a measurable impact on trader behavior and performance.  
Integrating sentiment signals into trading strategy design could improve risk-adjusted returns, particularly if combined with position sizing, asset selection, and direction bias aligned to prevailing sentiment.