Trader Performance vs Market Sentiment Analysis

Objective
This project analyzes how trader profitability, risk-taking, and trading activity vary across Bitcoin market sentiment regimes (Fear vs Greed) using Hyperliquid trading data.

Datasets

- Bitcoin Fear & Greed Index (daily market sentiment classification)

- Hyperliquid historical trader data including PnL, trade size, side, leverage, and timestamps

Methodology
Trade timestamps were converted into dates and merged with daily Bitcoin market sentiment using a date-based join.
This allowed each trade to be analyzed in the context of the prevailing market sentiment.

Key Insights

- Average trader profitability is higher during Greed and Extreme Greed periods.

- Traders take larger position sizes during Greed, indicating increased risk appetite.

- Trading activity decreases during Fear periods, suggesting cautious behavior.

Strategy Recommendations

- Reduce position size and leverage during Extreme Greed to manage downside risk.

- Avoid panic-driven exits during Extreme Fear conditions.

- Use market sentiment as a risk-adjustment signal rather than a direct trade trigger.