Trader Behaviour Insights Based on Bitcoin Market Sentiment

Candidate Name: Kavinashri
Role Applied For: Junior Data Scientist
Date: September 2025 **GitHub**: https://github.com/Kavinashri/trade-behavior

Objective

The goal of this analysis is to explore how Bitcoin market sentiment — categorized as *Fear* or *Greed* — influences trader behaviour and performance. By combining sentiment data with historical execution records from Hyperliquid, we aim to uncover patterns that can inform smarter trading strategies.

Datasets Used

1. Bitcoin Market Sentiment Dataset

- Columns: Date, Classification (Fear or Greed)
- Source: Fear & Greed Index

2. Hyperliquid Trader Execution Data

- Columns: account, symbol, execution price, size, side, time, start position, event, closedPnL, leverage, etc.
- Source: Hyperliquid historical data

Methodology

- **Data Cleaning:**
    - Converted timestamps to datetime format
    - Removed duplicates and handled missing values
    - Merged sentiment data with trader execution records by date
- **Feature Engineering:**
    - Tagged each trade with corresponding market sentiment
    - Calculated metrics such as PnL per trade, leverage buckets, and trade volume
- **Exploratory Analysis:**
- Compared trader behaviour across Fear and Greed days
- Visualized trends in leverage, profitability, and trade frequency

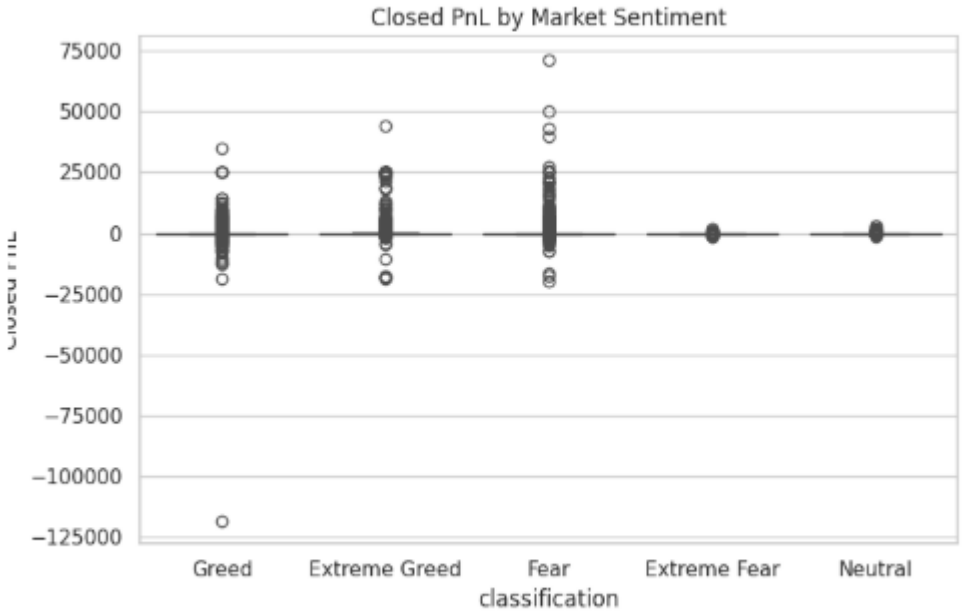
Recommendations

- Reduce leverage during Greed periods to avoid overexposure
- Explore contrarian strategies during Fear periods
- Incorporate sentiment overlays into daily trading dashboards
- Study consistently profitable traders to model robust strategies

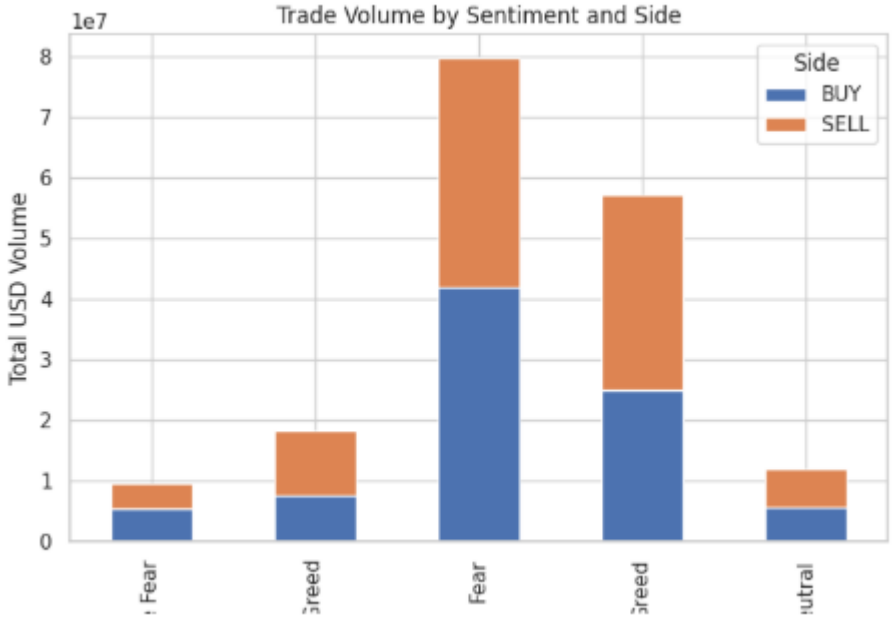
Deliverables

- Jupyter Notebook: trade_behavior.ipynb
- Output Images:

  pnl_by_sentiment



volume_by_sentiment_side



- GitHub Repository: https://github.com/Kavinashri/trade-behavior

About the Candidate

Name: Kavinashri
Location: Bengaluru, India
Profile: Aspiring Data Analyst with hands-on experience in Python, SQL, Excel, Power BI, and real-world trading data analysis. Passionate about turning data into actionable insights and building intelligent systems for Web3 and beyond.