

Data Science Assignment – Web3 Trading Team

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Date: 02-10-2025

Introduction

The goal of this assignment is to analyze the relationship between trader behavior (profitability, trade volume, and risk) and overall market sentiment (Fear vs. Greed).

Data Preparation

We cleaned and aggregated historical trader data into daily metrics (Closed PnL, Trade Volume, Execution Price) and merged with the Fear & Greed Index on date.

Exploratory Data Analysis (EDA)

Key analyses included Daily PnL trends, Profitability vs Sentiment, Trade Volume vs Sentiment, and Correlation Heatmap.

Key Insights

1. Traders are more active during Greed cycles. 2. Losses are higher in Fear periods. 3. Greed is linked to stable profits, while Fear signals risky behavior. 4. Sentiment index can guide risk management strategies.

Conclusion

Trader behavior aligns strongly with market sentiment. Greed days encourage higher activity and profits, while Fear days lead to riskier trades and losses.

Sample Visualizations

