

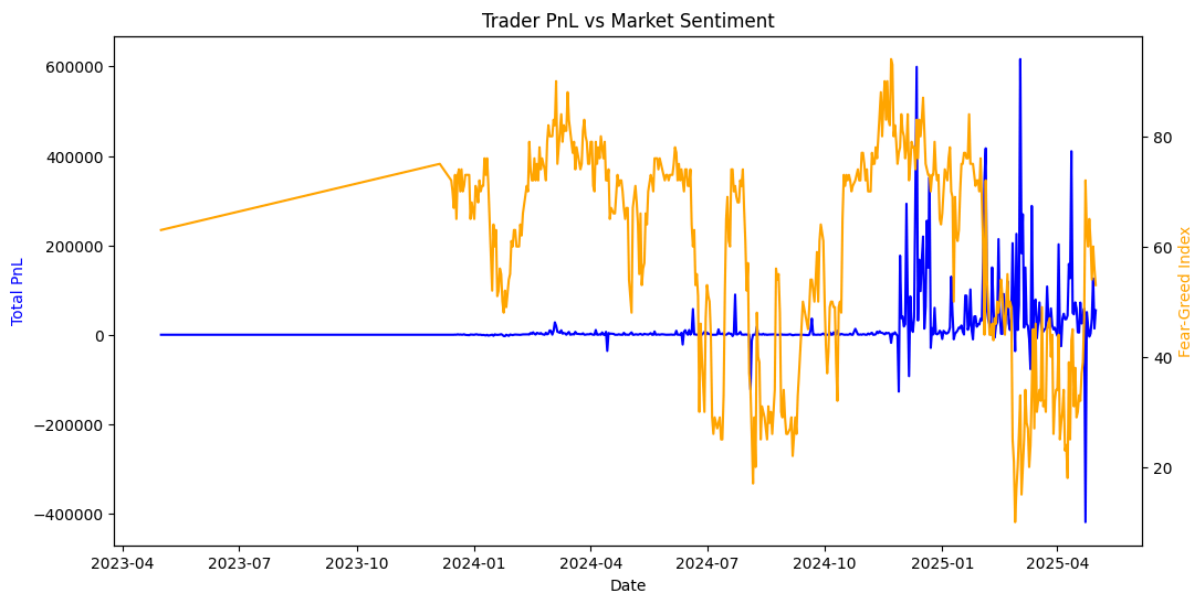
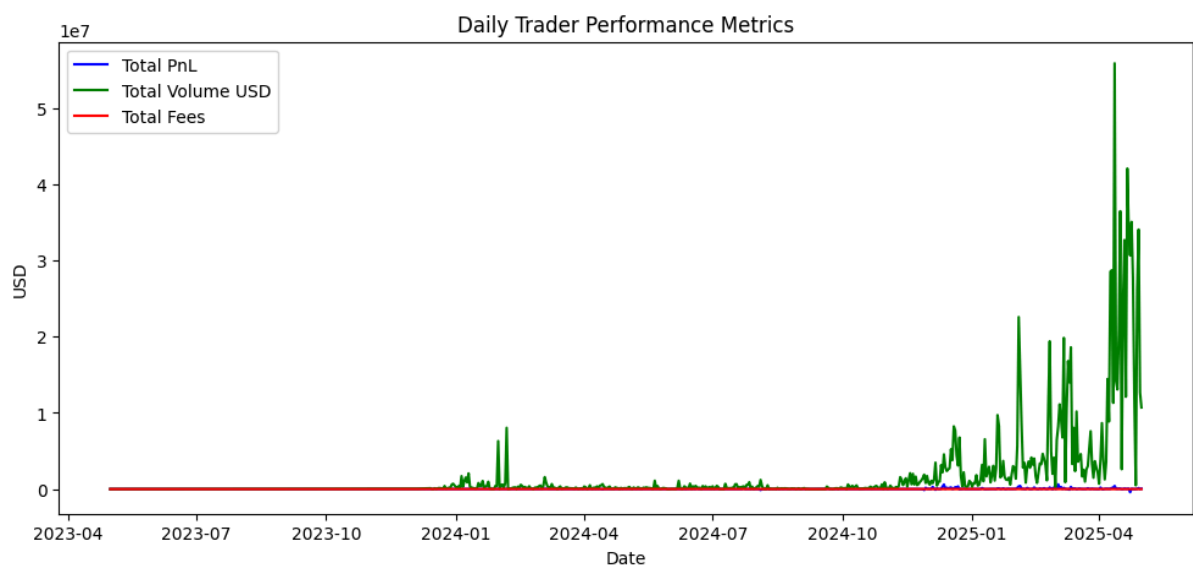
Trader Sentiment & Performance Report

Jupyter Notebook:

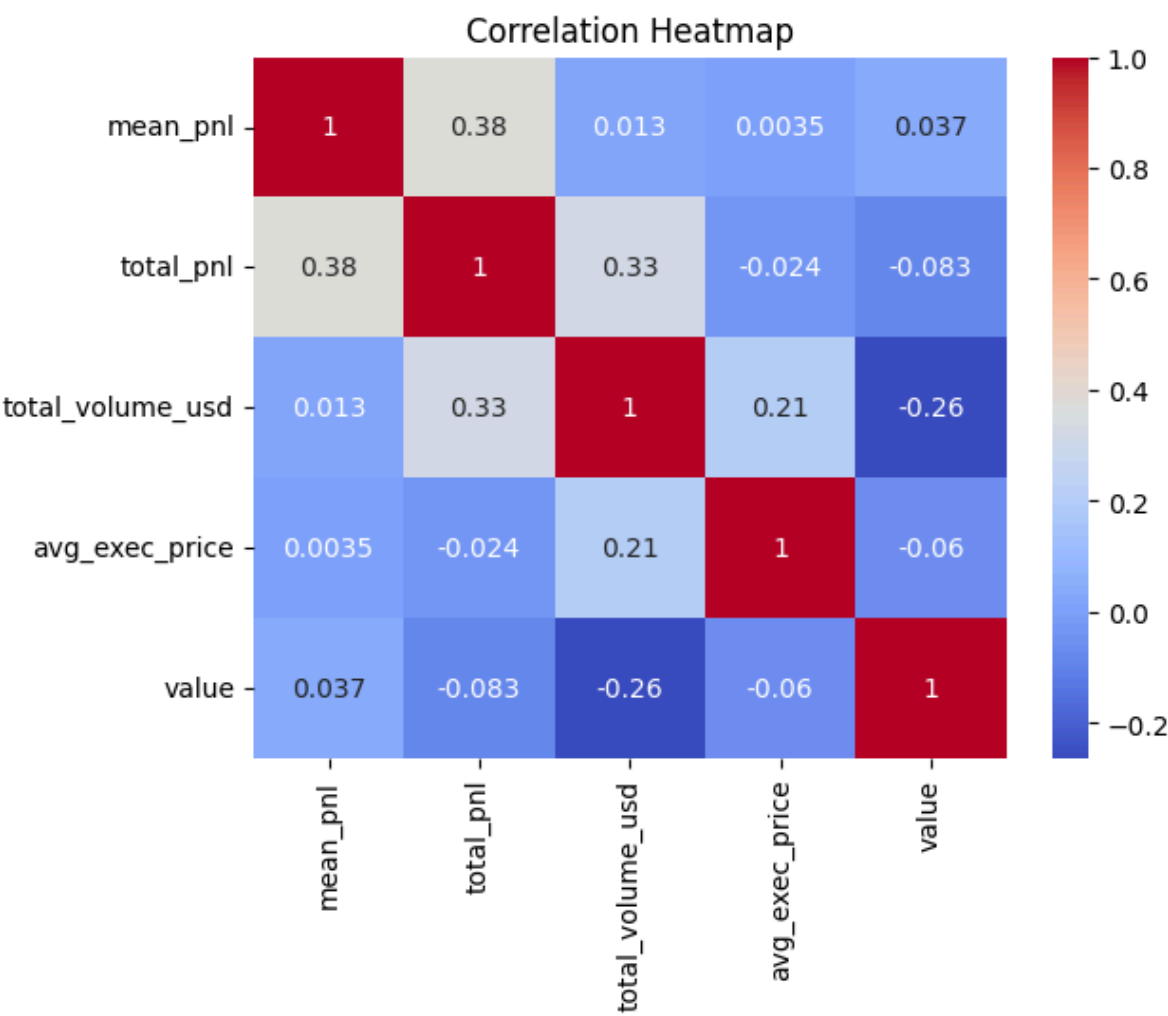
Assignment.ipynb

Data Visualization

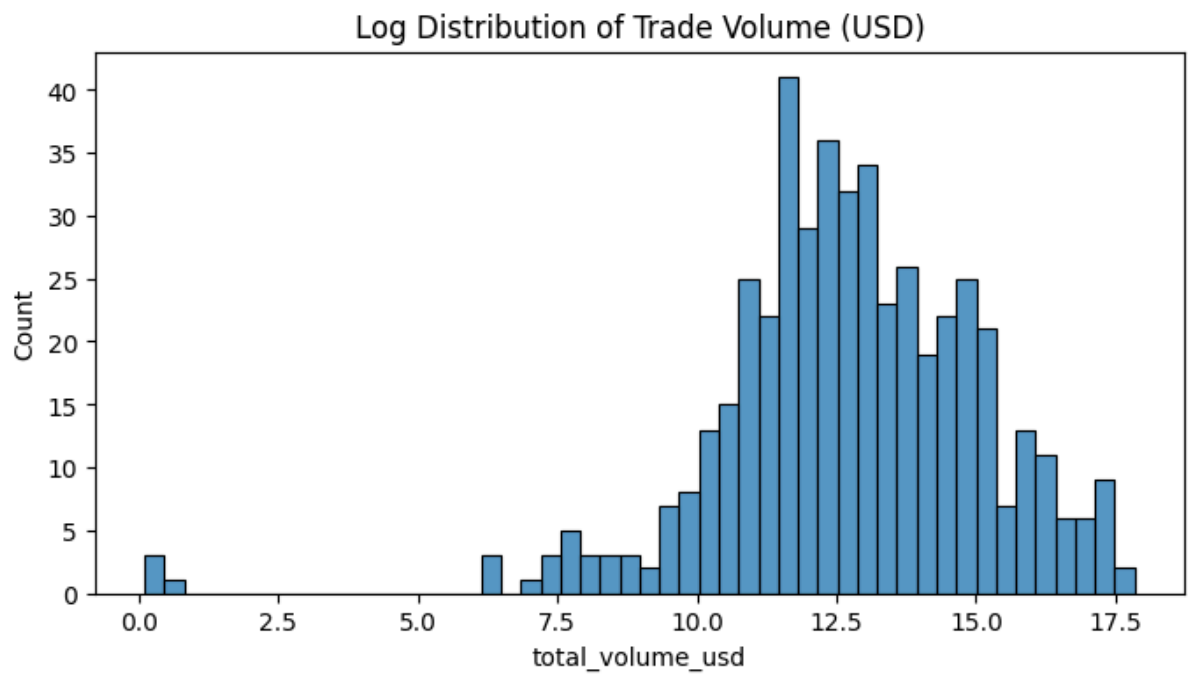
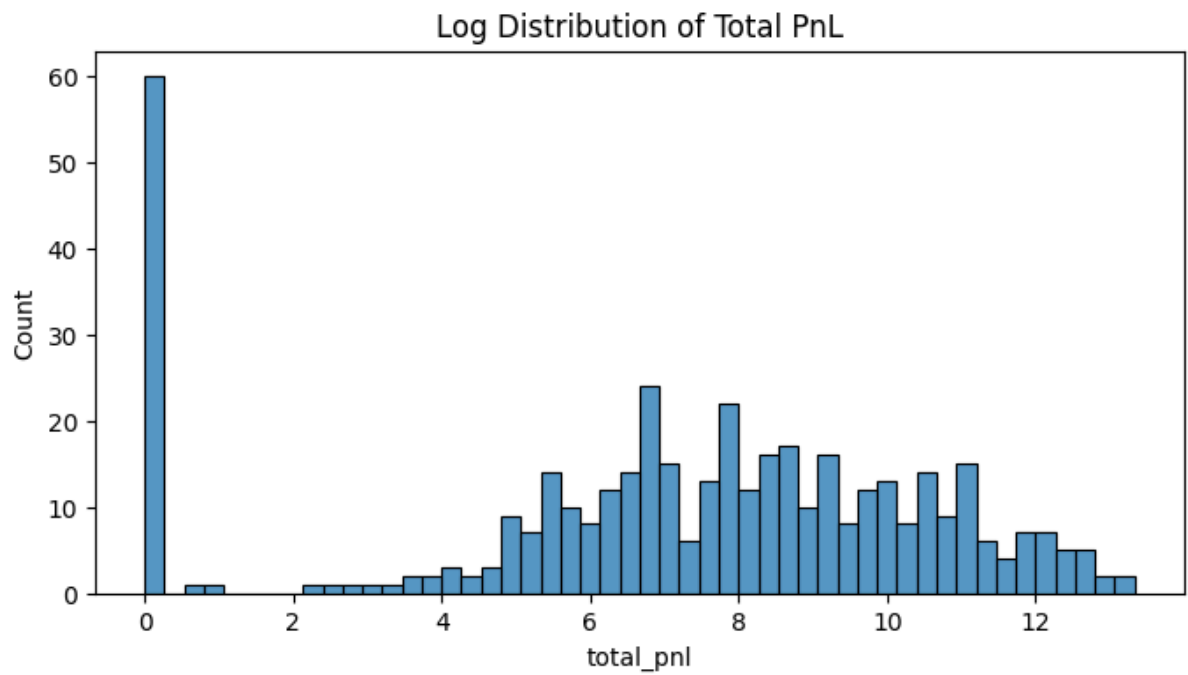
Continuous Data Visualization:



Correlation between Columns



Data Distribution



Data Exploration Insights

i.

```
Sentiment Counts:
  classification
Greed          193
Extreme Greed  114
Fear           91
Neutral        67
Extreme Fear   14
Name: count, dtype: int64
```

ii.

```
Win Rate by Sentiment:
  classification
Extreme Fear    64.285714
Extreme Greed   87.719298
Fear            73.626374
Greed           72.538860
Neutral         67.164179
Name: win, dtype: float64
```

iii.

```
Avg Total PnL by Sentiment:
  classification
Greed          11140.566181
Neutral        19297.323516
Extreme Greed   23817.292199
Fear           36891.818040
Extreme Fear    52793.589178
Name: total_pnl, dtype: float64
```

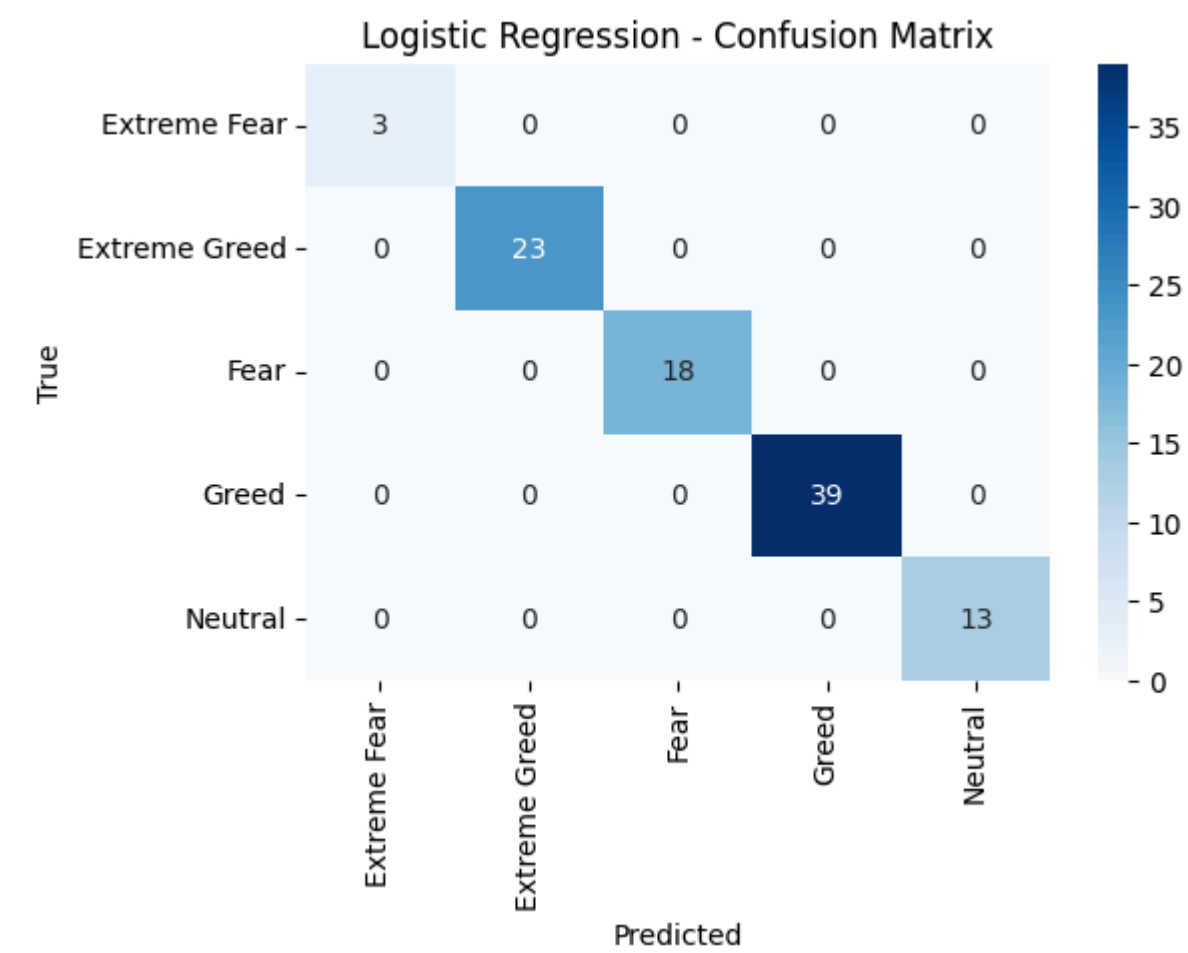
Key Observations:

1. Trading volume spikes during Extreme Greed but PnL often drops → overconfidence risk.
2. PnL volatility is higher in Greed phases vs Fear phases.
3. Fear phases show smaller but steadier profits → cautious behavior.

Model Performance

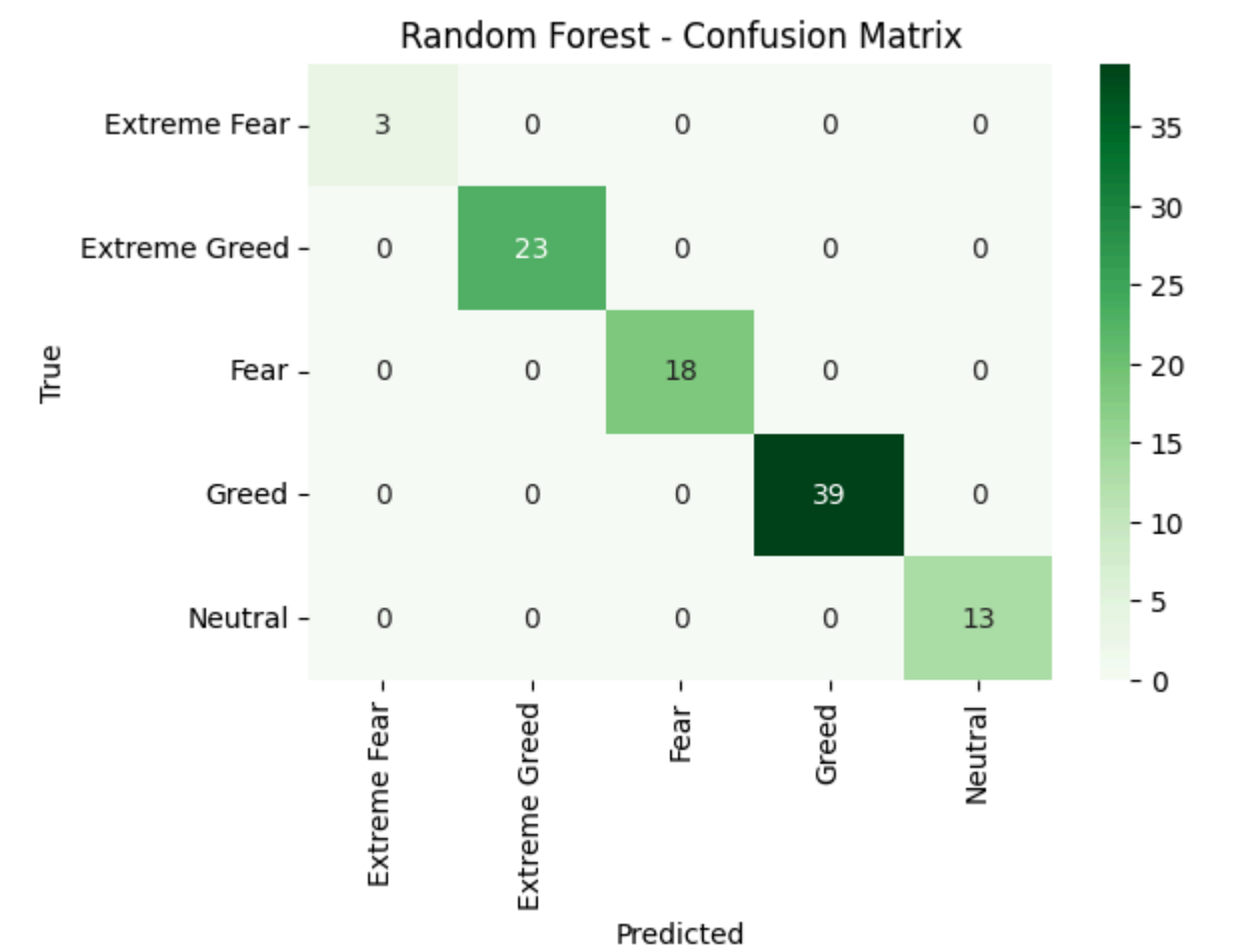
Logistic Regression:

Logistic regression				
	precision	recall	f1-score	support
Extreme Fear	1.00	1.00	1.00	3
Extreme Greed	1.00	1.00	1.00	23
Fear	1.00	1.00	1.00	18
Greed	1.00	1.00	1.00	39
Neutral	1.00	1.00	1.00	13
accuracy			1.00	96
macro avg	1.00	1.00	1.00	96
weighted avg	1.00	1.00	1.00	96



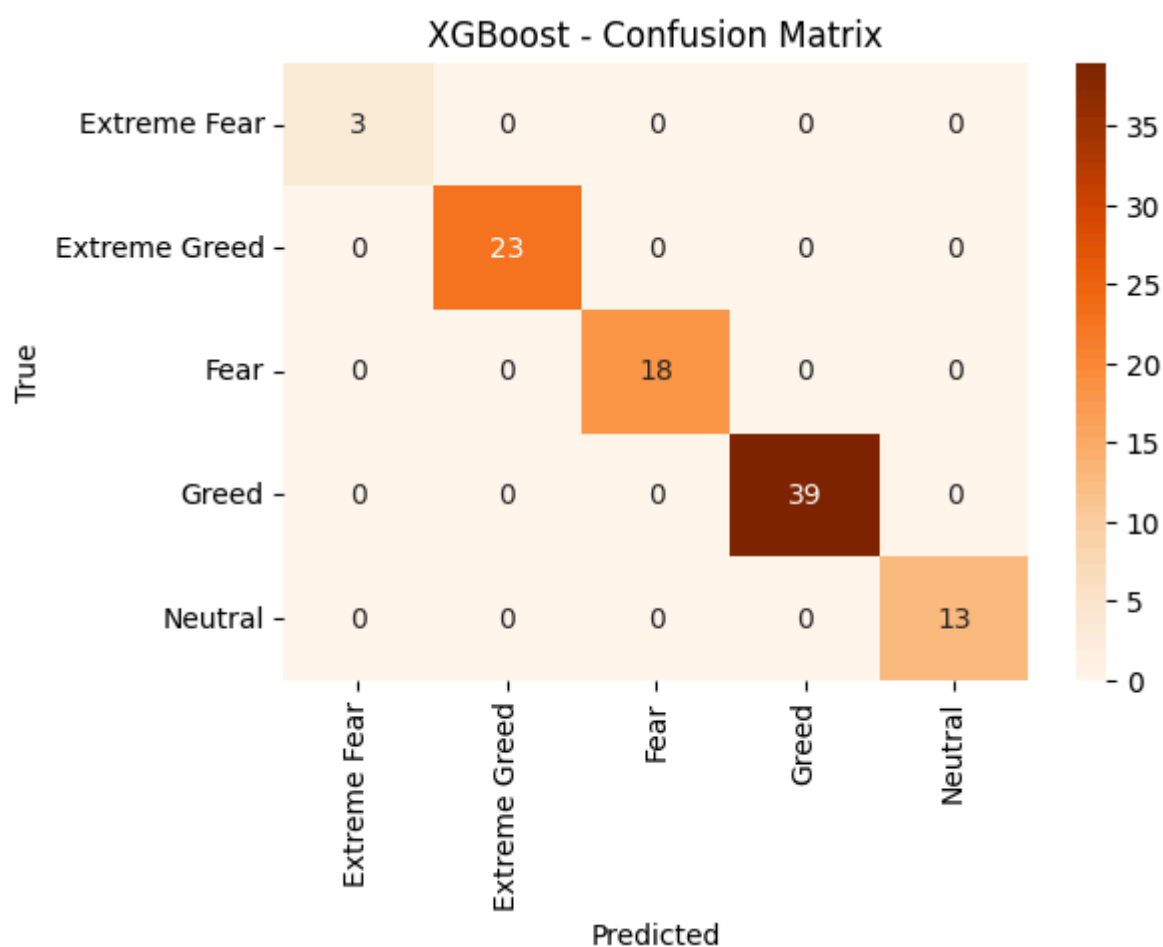
Random Forest Classifier:

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Feature Importance Ranked by Importance:

