Bavda Consulting
Vivek Bavda
October 4, 2021

On Any Given Sunday...

Introduction:
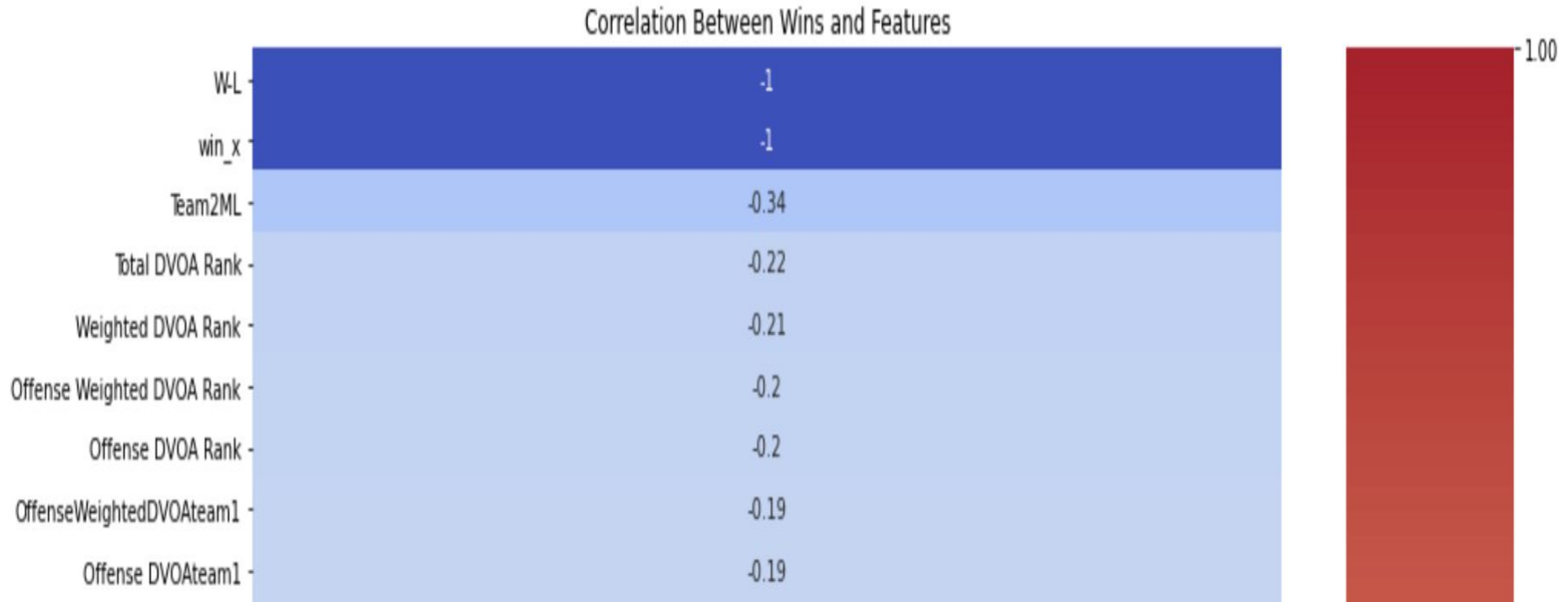
Problem Statement:

    Predicting Wins and Losses on NFL games.
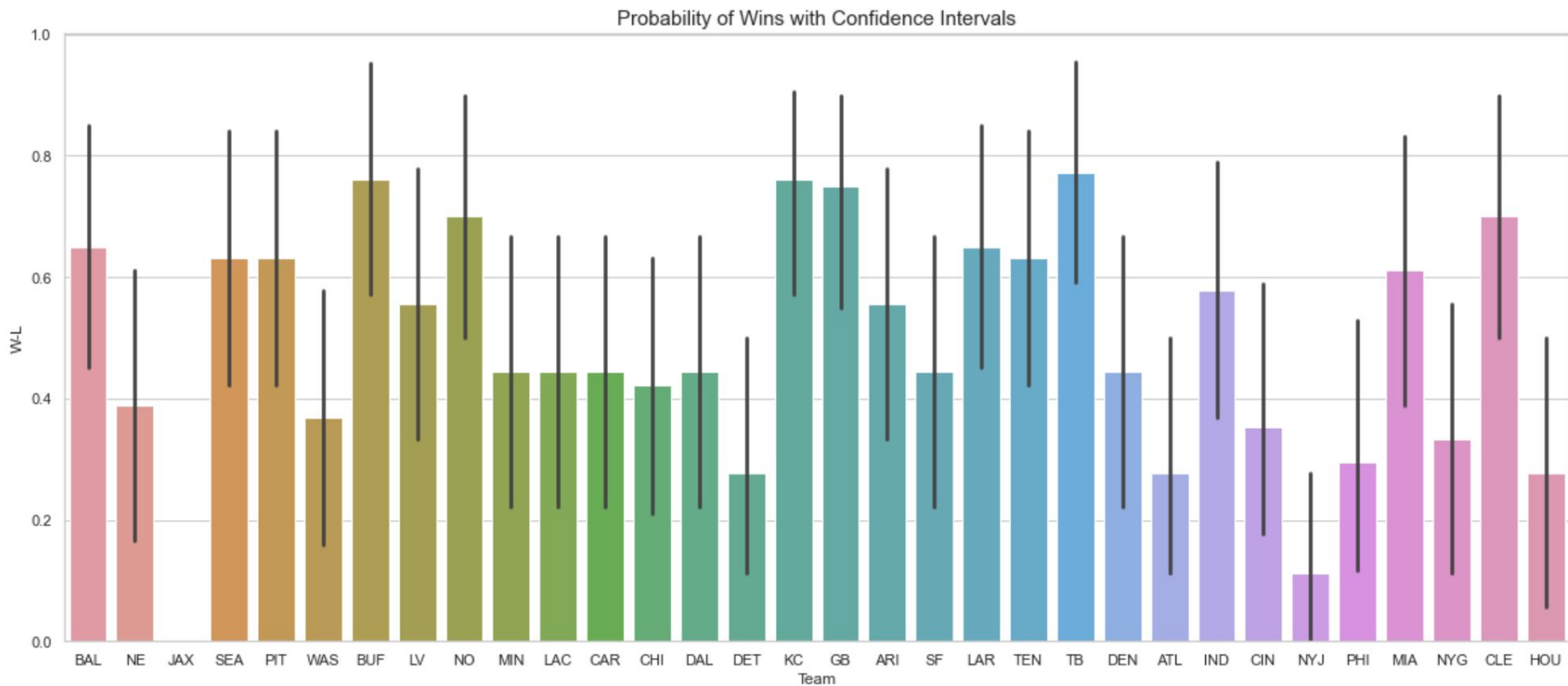
    For Entertainment Purposes Only--No guarantees

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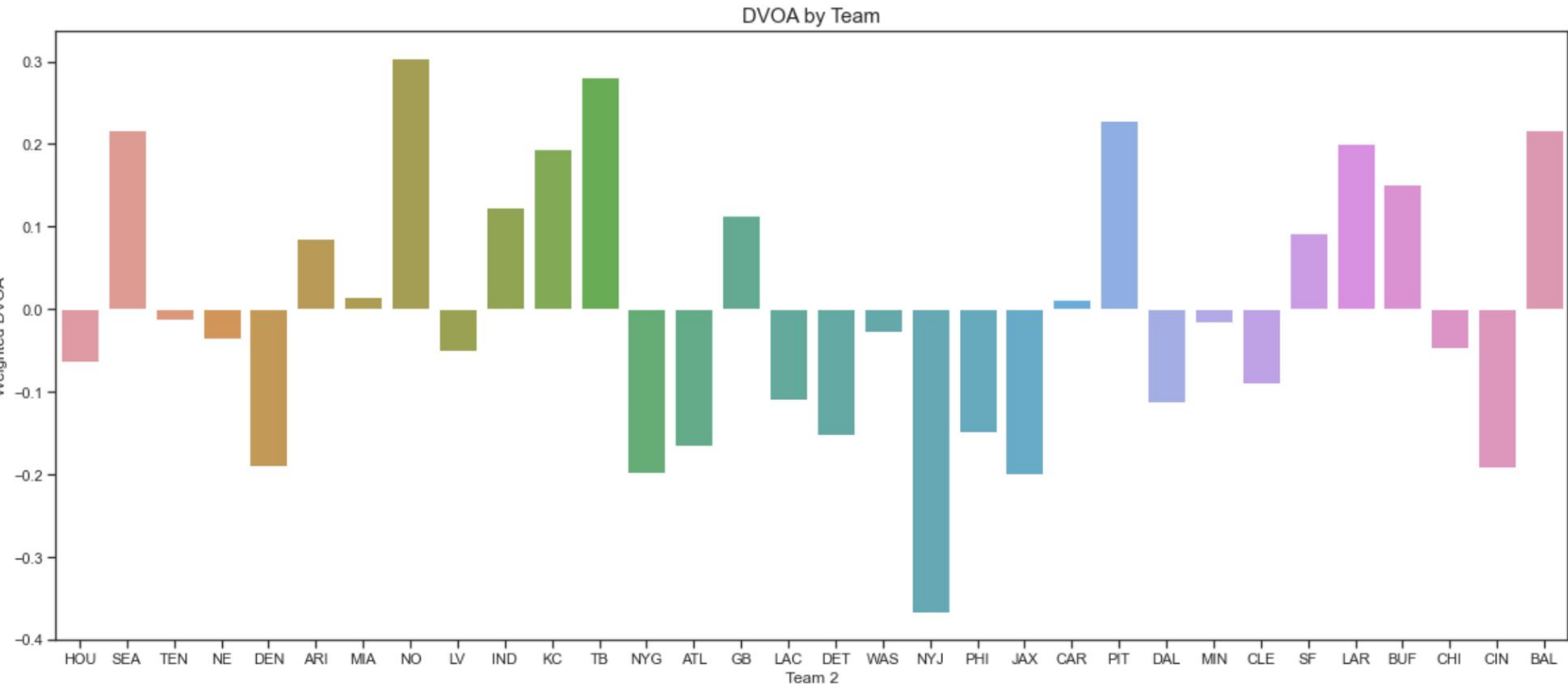   Adding Knowledge Since July 12, 2021

Exploratory Data Analysis

Correlation Between Wins and Features

Feature	Correlation
W-L	-1
win_x	-1
Team2ML	-0.34
Total DVOA Rank	-0.22
Weighted DVOA Rank	-0.21
Offense Weighted DVOA Rank	-0.2
Offense DVOA Rank	-0.2
OffenseWeightedDVOAteam1	-0.19
Offense DVOAteam1	-0.19

Win Probability By Team

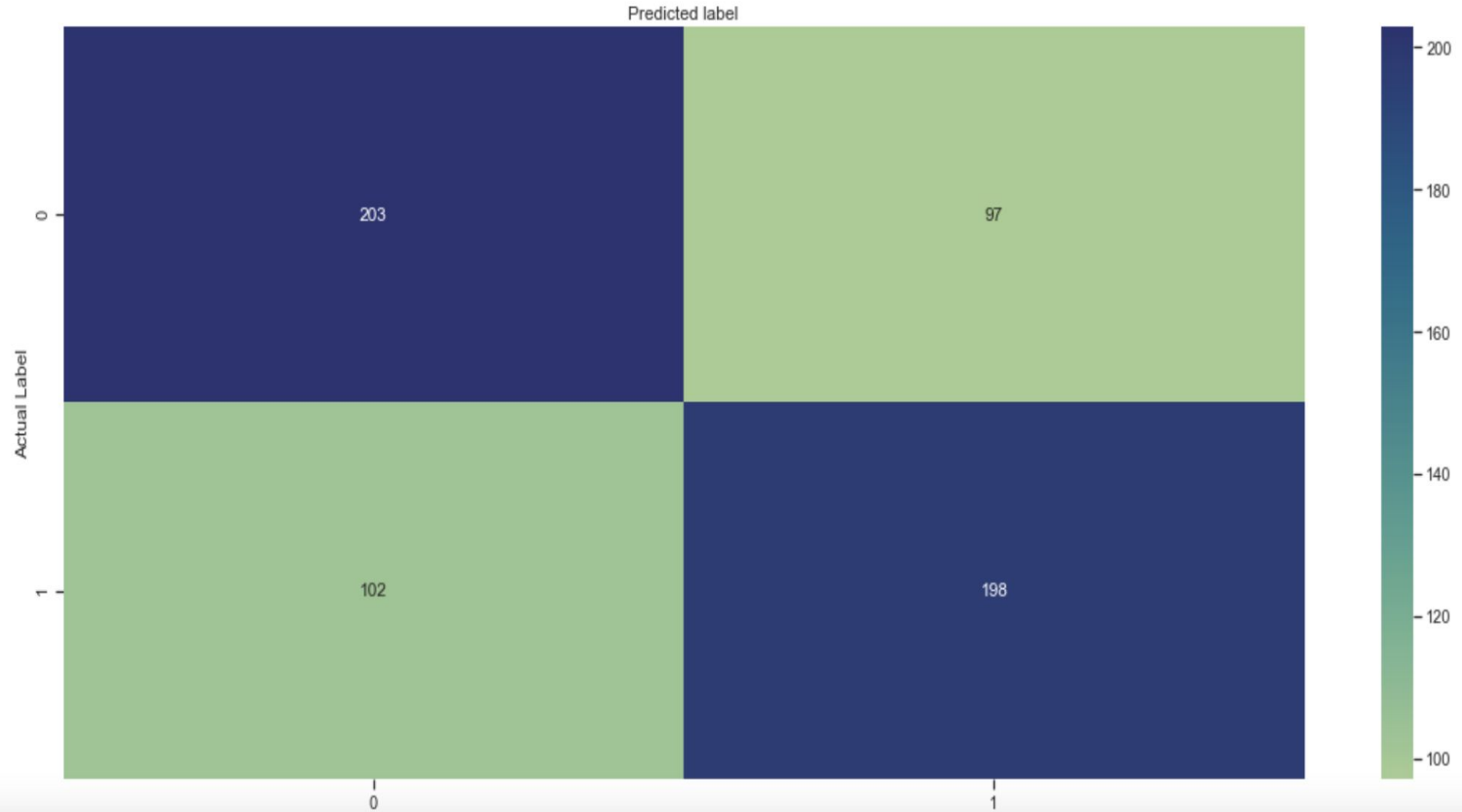Probability of Wins with Confidence Intervals

Football Outsiders Main Metric By Team

DVOA by Team

Accuracy: 0.6683333333333333
Precision: 0.6711864406779661
Recall: 0.66
F1 Score: 0.665546218487395

Confusion Matrix for Baseline Voter Classification

Predicted label

	0	1
0	203	97
1	102	198

Actual Label

Conclusion and Recommendations

Production Model Recommendation

    Gridsearched Voter Classification

Model Usage

    Offense Potency

    Football Outsiders Data