Josh Konowitz - NFL 4th Down Analytics

PROBLEM: NFL coaches currently use a 'gut' decision-making process on 4th down, resulting in punting on 75% of 4th downs

SOLUTION: Using machine learning to provide insights for coaches in order to help them make the most optimal decision
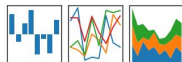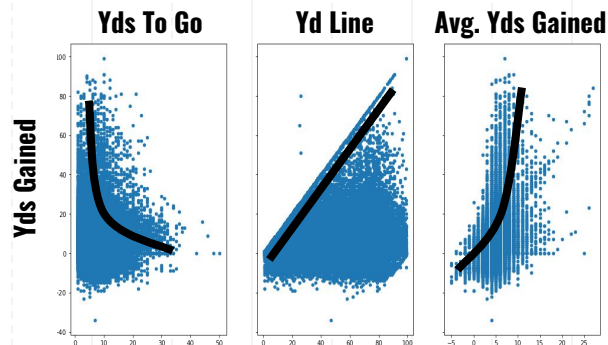
TECHNOLOGY:

PREDICTING YARDS GAINED AND FIRST DOWNS:

RANDOM FOREST REGRESSOR MODEL

MEAN SQUARE ERROR (MSE)

Yards Gained:	First Downs:
4.66 YDS	.1415%

LEARNING OUTCOMES..
1. Python Libraries
2. Machine Learning
3. Data Science

NEXT STEPS...
1. Predicting Field Goals and Punting
2. Turning Predictions into Insights