→Visualized the distribution of special team play types, such as kickoffs, punts, and field goals.

→Created bar plots to show the distribution of plays by quarter, down, and possession team.

→Created a pie chart to show the distribution of possession teams.

→Visualized the distribution of player heights and weights by position.

→Explored trends in the number of plays by NFL season.

→Performed binary classification to predict the success of special team plays using AdaBoost, KNeighbors, SVC, RandomForest, and XGBoost.

→Evaluated the performance of each classifier using accuracy, ROC AUC score, and classification reports.

→Explored the relationship between operation time and hang time using scatter plots and QQ plots.

→Visualized the distribution of play results using a histogram.

→Created a pivot table and heatmap to show the relationship between intended and actual kick directions.

→Visualized the distribution of special teams play types using a pie chart.

→Explored trends in the number of plays by NFL season using a bar plot.

→Hyperparameter tuning can significantly improve performance when training your machine learning models. So, I implemented the hyperparameter tuning method.

→Instead of a single train-test split, using k-fold cross-validation is better for estimating the model's performance on unseen data.