



5 PLUS

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01

Business Problem



01

Overview:

In 2019 over 3.67 BILLION USD is paid in contracts to players

Here at 5 plus want to put our financial resources behind players who'll have long and strong careers



Our job:

We are working with 5 Plus to identify young players with the highest likelihood of having a sustained career of five or more years in the NBA



02

Data

We used two datasets from Kaggle

One had 2360 records, the other had 3243 records.

17 features, ranging from mean attempts to 3-pt. shots

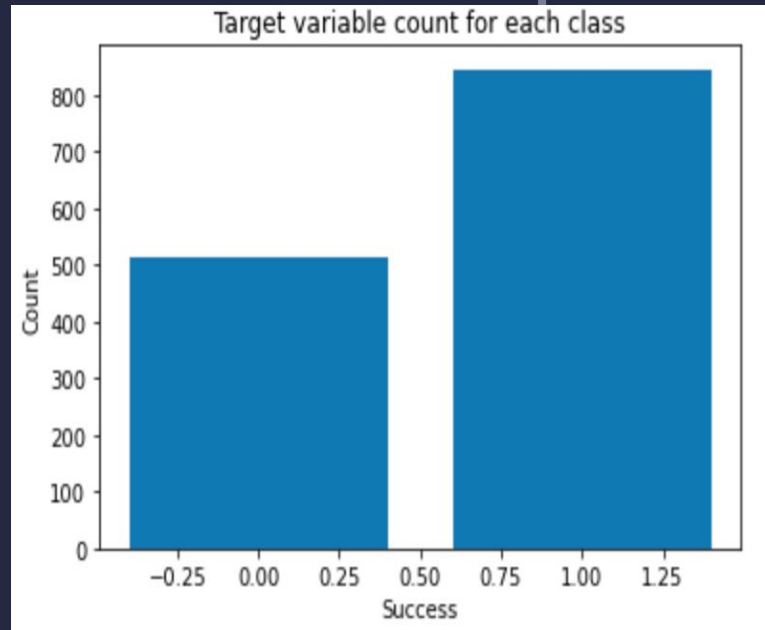
1950-2018



Data Imbalance

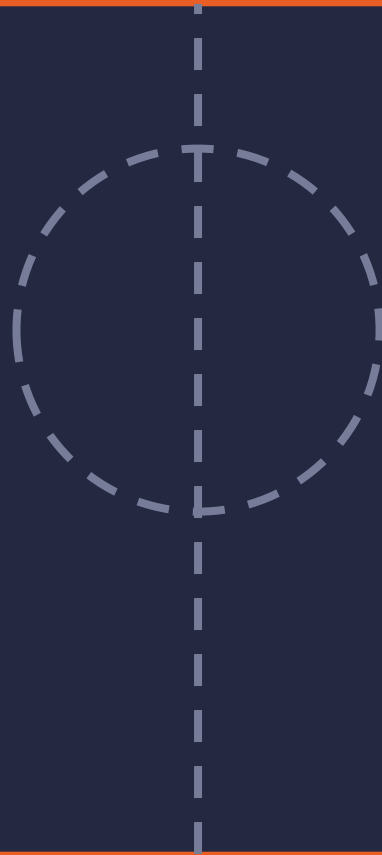
Here we can see the data is not balanced in our target variable there is a lot more people who did pass the threshold of 5 plus years than did not.

Therefore we will have to balance this data set.



03

OUR METHOD

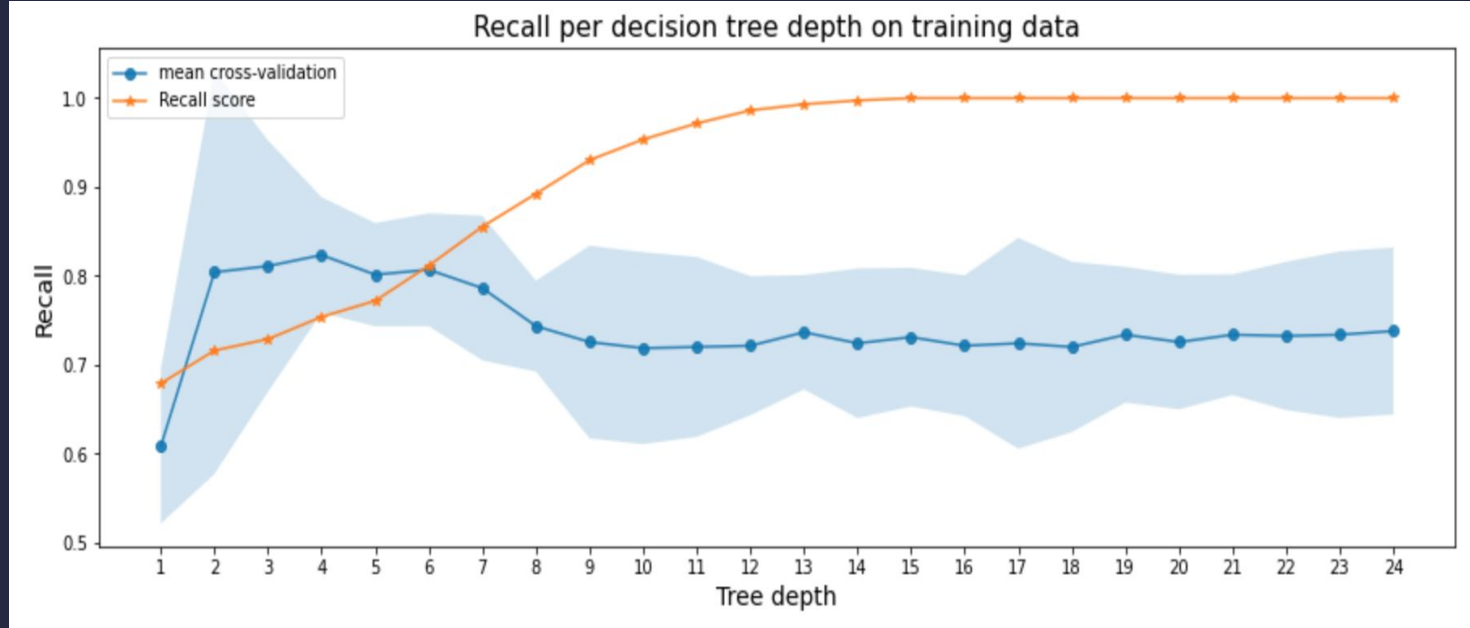


Models

- LOG REG
- Estimates the probability of an event occurring, such as voted or didn't vote, based on a given dataset of independent variables.

- DT
- A tree-like structure where each internal tests on attribute, each branch corresponds to attribute value and each leaf node represents the final decision or prediction.

We can see how over fit the DT is...and use that to prune our tree depth

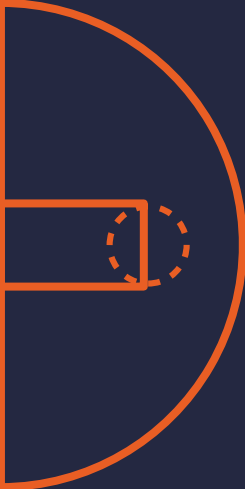




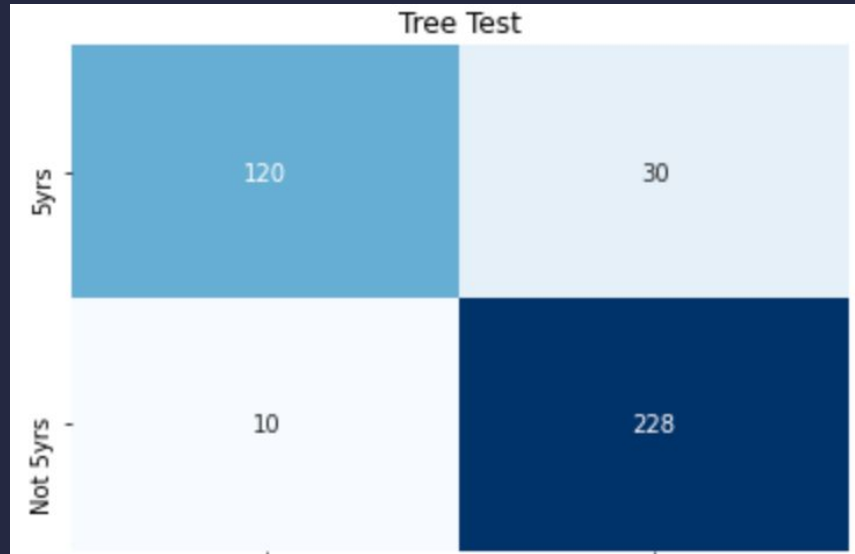
04

Results

Confusion Matrix



Our Decision tree had the best results, with 120 TP (won't last 5 years), and 228 TN (will last 5 years)



Recommendations



Slam Dunk

We can predict with a high degree of confidence which players have pro staying power



Big No

We can also be pretty confident that we're not passing over too many players with DT model pro potential



THANKS

DO YOU HAVE ANY QUESTIONS?

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