

Playing Moneyball in the NBA

We will apply some of the ideas from Moneyball to data from the National Basketball Association-- that is, the NBA. You may refer to the rules of NBA (if required) from INTERNET.

Use the data from

https://storage.googleapis.com/dimensionless/Analytics/NBA_train.csv

&

https://storage.googleapis.com/dimensionless/Analytics/NBA_test.csv

The variables mentioned in the data are as below

- SeasonEnd: Year the season ended.
- Team: name of the team.
- Playoffs (binary variable): Whether or not a team made it to the playoffs that year.
- W: Number of regular season wins.
- PTS: points scored during the regular season.
- oppPTS: opponent points scored during the regular season.
- FG: number of successful field goals.
- FGA: number of field goal attempts.

PS:- 'A' behind the name of any variable means, number of attempts such as FG and FGA ; FT and FTA

- X3P:- Number of 3 pointers scored
- X2P:- Number of 2 pointers scored
- X2PA:- Number of 2 pointers attempted

- X3PA:- Number of 3 pointers attempted

PS: If we start any variable with a number, R will automatically convert it to start with a character by adding an "X" in front of that. Our csv file didn't have any variable with X. It had 2P, 3P etc.

- ORB: Offensive rebounds.
- DRB: Defensive rebounds.
- AST: Assists.
- STL: Steals.
- BLK: Blocks.
- TOV: Turnovers

PROBLEM 1:- Find out the number of wins required to enter the playoffs.

PROBLEM 2:- Create a linear regression model to predict the number of wins. Apply it on the test data and compute the accuracy of the model by checking the necessary parameters.

PROBLEM3:- Create a linear regression model to predict the number of point scored (PTS). You can try out different independent variables and choose the best model. Also be careful about multicollinearity. Apply it on the test data and compute the accuracy of the model by checking the necessary parameters.