KOBE BRYANT SHOT SELECTION!!!

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1. **Introduction**
2. **Data Description**

The original data set contains a total of 30697 shot attempts by Kobe Brayan in his 20 years carrier. , 5000 of the shot\_made\_flags have been removed from the original data set and are shown as missing value to be served as test dataset and remaining are used as training set.

The data contains 29 variables which listed as below including brief description:

* **action\_type:** The type of shot attempted, such as jump shot, dunk, etc.
* **combined\_shot\_type:** Classifies the shots under 6 larger categories: Bank Shot, Dunk, Hook Shot, Jump Shot, Layup, and Tip Shot.
* Matchup: The two teams in the specific match. Since Kobe was always on the Lakers and opponent contains all the information in matchup, we decided to reduced number of levels for this variable by dividing all games into Home and Away category.
* Opponent: Opponent in the specific match.
* Season: The basketball season (2000, 2001, etc.)
* shot\_type: includes categories 2pt or 3pt.
* shot\_zone\_area: Area from which shot was attempted (Right, Left, Center, Back Court, Right Center, Left Center)
* shot\_zone\_basic: Further area information (Mid-range, restricted area, in the paint, above the break 3, backcourt, left corner 3, right corner 3)
* shot\_zone\_range: Range (<8 ft, 8-16, 16-24, 24+, backcourt)
* team\_name: Name of Kobe’s team, the Lakers, so we decided to remove it from dataset.
* arena\_temp: average temperature of arean
* attendance: Number of people who watched the game
* avgnoisedb: Average noise level in the arena in decibels
* game\_date: Date of the specific match.
* game\_event\_id:
* game\_id: NBA game ID
* lat: The latitude of Kobe’s position during the shot attempt.
* loc\_x: The x-location on the court.
* loc\_y: The Y-location on the court.
* Lon: The longitude of Kobe’s position during the shot attempt.
* minutes\_remaining
* period
* playoffs
* recId
* seconds\_remaining
* shot\_distance
* shot\_id
* shot\_made\_flag
* team\_id

1. **Exploratory Data Analysis**