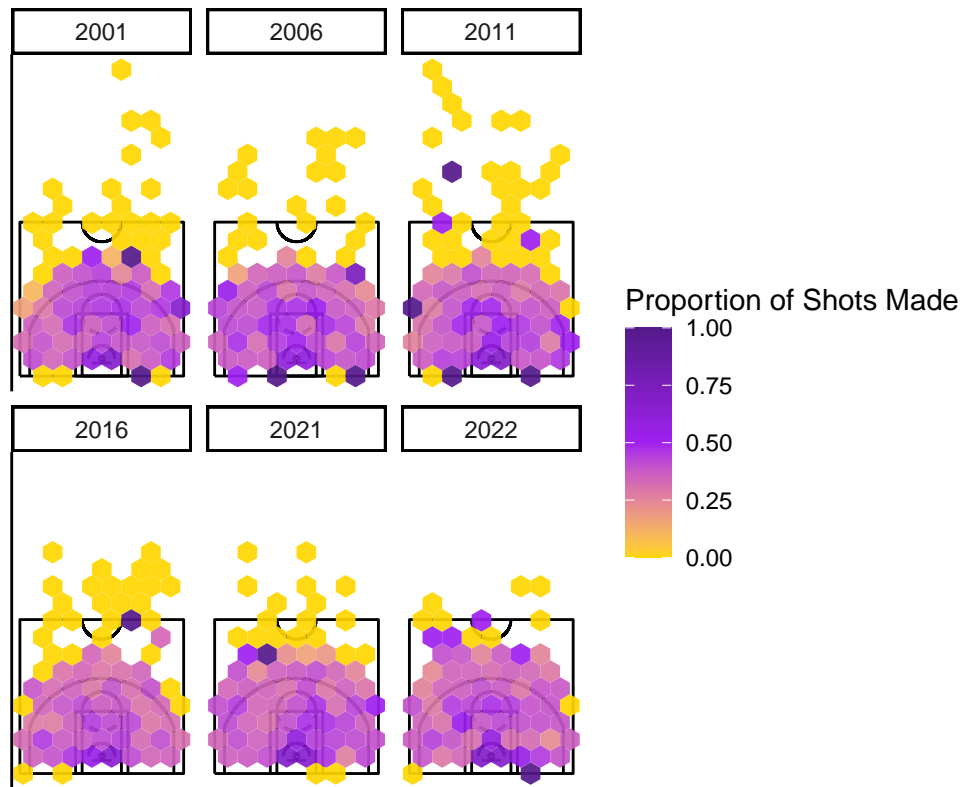


# STAT 345 Midterm Project

Due April 1

“Our offense is like the Pythagorean Theorem. There is no answer!”, *Shaquille O’Neal*

## Shots Made by Location for the Los Angeles Lakers

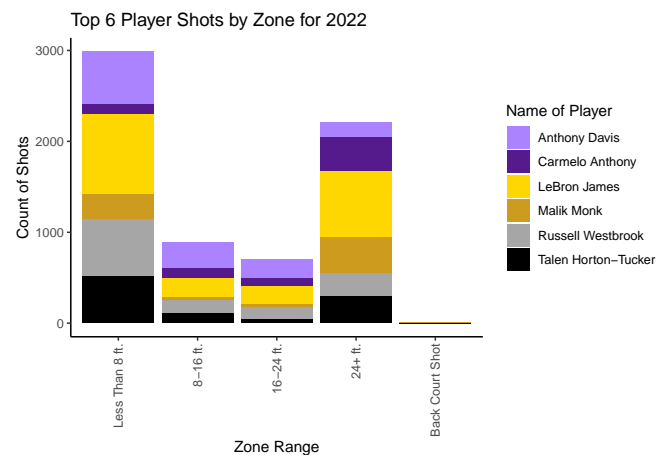
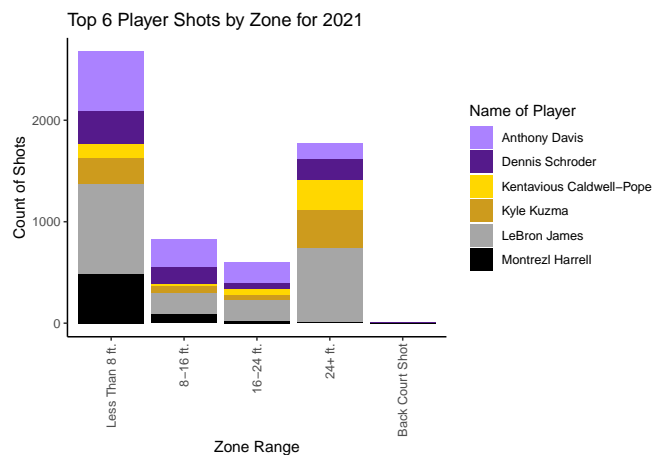
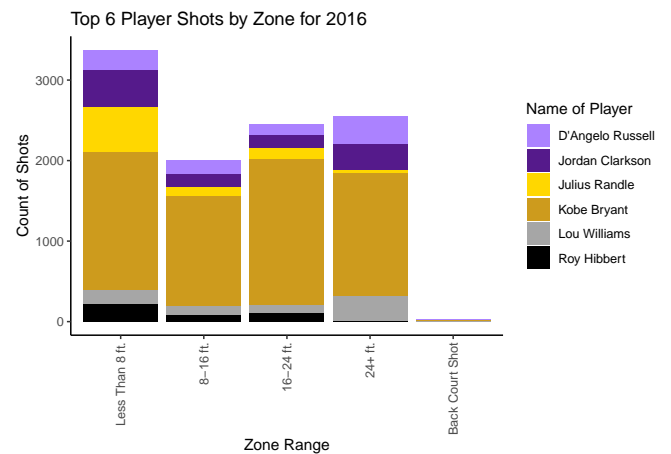
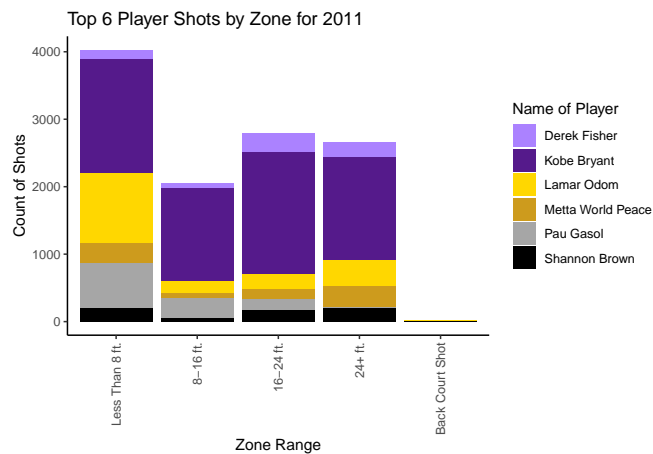
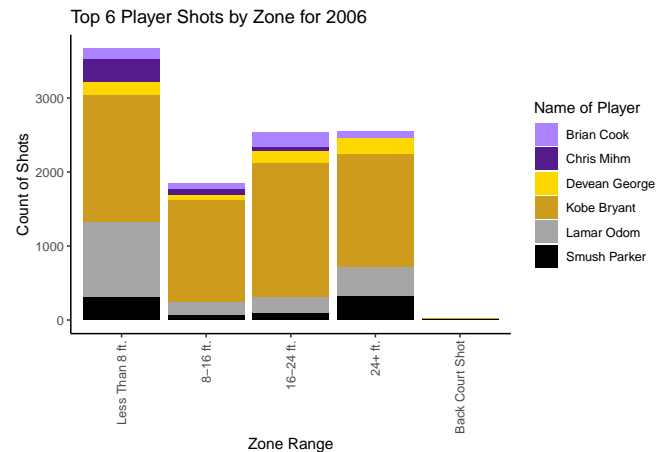
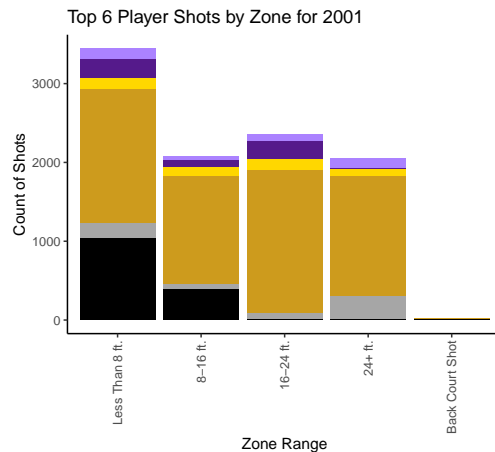


Summary:

- In 2006 and 2011, more shots were made at the top of the key and the free throw line compared to the other seasons
- Almost every shot over the years was missed behind the half court line
- In 2021 and 2022, more shots were made close to the basket than the other seasons
- 3 point shots on the lower right side of the court in 2011 were made more than the other seasons
- Percentage of shots made in 2016 was on average lower than the other seasons

## Report:

In 2006 and 2011, there is a higher amount of darker purple hexagons by the top of the key and the free throw line. In 2001, 2021, and 2022, the hexagons in these areas are lighter purple, meaning less shots were made. Additionally, the left top of the key has a higher percent made than the right side in 2006 and 2011. Looking at the shots attempted behind the half court line, almost all of them for each season are gold. This means none of these shots were made. The shots attempted behind the half court line were most likely made because time is going to run out, and they were not necessarily meant to be made. When examining the 3 hexagons in each season that surround the basket, we can conclude seasons 2021 and 2022 have the darkest purple hexagons, implying that more shots were made under the basket these seasons than previous seasons. 2011 also had a higher percent made under the basket than 2001, 2006, and 2016. In 2011, shots attempted from the right side of the 3 point line were more likely to be made than shots made from the same position on the left side. Shots attempted from the right side of the 3 point line in 2011 were more consistent than any other 3 point shot in all of the seasons because of the darker purple color. Looking at the season graphs as a whole, 2016 had the most lighter purple and gold hexagons. Thus, 2016 had a lower average percentage shots made than any of the other seasons listed. The remaining 5 seasons look to have about the same amount of dark purple, light purple, and gold hexagons, implying the average percentage shots made was most likely around the same for these seasons.



### Summary:

- In these graphs, the zone range of the shots for the same 6 seasons as above are broken up by the top 6 players for each season.
- In 2001, 2006, 2011, and 2016, Kobe Bryant shot the most shots overall, and he shot the most from every zone on the court.
- In the 2021 and 2022 seasons, LeBron James shot the most overall, and he shot the most from every zone on the court except for the 8-16 ft. range. Anthony Davis shot the most shots from the 8-16 ft. range for these 2 seasons.
- In 2021 and 2022, the amount of shots in each zone is more spread out over each top 6 player than the previous seasons.