

Project Overview

The main objective of this project is to use NBA data to easily see and look up the best teams and players from the 1980s to today and to gain deeper insights about these teams and players through the use of interactive data visualizations. This project is a web application with 3 main sections:

- Section 1 is an introduction to the project with a title, a brief 2 paragraph description of the project, and a couple of GIFs to catch the user's attention.
- Section 2 shows the best teams and players from the user-selected season from 1980 to 2021 (today). There are 3 lists that are displayed: Eastern Conference teams, Western Conference teams, and the 10 best players. If the user selects a different season, the best teams and players in the 3 lists will reflect the newly selected season. By clicking on any of the teams in the Eastern Conference or Western Conference lists, it will pop up a modal with 3 visualizations: a diverging bar chart of the team's winning and losing streaks, a bar chart or area chart (still deciding) of a toggleable statistic for that team, and a shot chart of all the shots the team has taken for that season (this is still in progress and is not in the Alpha Release). By clicking on any of the players in the 10 best players list, the same visualizations will appear except it will be specific to that individual player and the diverging bar chart will show that player's +/- stats for each game in the season instead of a winning and losing streak.
- Section 3 shows the averages of various statistics throughout the years (1980-2021) in a line chart. The user can select or deselect the stats currently being graphed.

Implemented Features

The features that have been currently implemented from the [project proposal](#) are:

- Section 1:
 - Title + introduction paragraph + GIFs
- Section 2:
 - List of best teams and players
 - Selectable list items that pop up a modal with visualizations
 - Diverging bar chart of team's winning and losing streaks
 - Bar chart/area chart (still deciding) of a statistic (points for now)
 - User can close the modal
- Section 3:
 - Static visualization of two statistics (3-point Makes and Turnovers)

Upcoming Immediate Milestones

The next milestones/features that will be implemented next are:

- The shot chart in the pop up modal in Section 2.
- The ability to select a different variable for the bar chart/area chart in the pop up modal in Section 2.
- The time progression for the Section 2 best teams and players lists.
- The ability to select and deselect variables for the change over time line chart in Section 3.

Roadblocks

- Choosing between a bar chart and area chart for the pop-up modal in Section 2. The bar chart was the initial choice in the project proposal, but after playing around with the area chart it looks much more visually pleasing.
- Graphing a multi-series line chart for variables with great differences in values in Section 3. For example, the variable 3-point Makes has values that range from 1 to 13, but the variable Points has values that range from 70 - 100+. When these two values are on the graph together, the user cannot see the trends/changes for the 3-point Makes variable because the y-axis goes from 0 to 140 (since the Points variable is also being graphed), but the 3-Point Makes variable only spans from 1 to 13.

Static Visualizations (all of these can be found on the web page)

| The Best Players and Teams in the 1980-81 Season | | | |
|--|--------------------|---------|------------------------|
| Eastern Conference | Western Conference | | Players |
| 1. Celtics | 1. Suns | 1980-81 | 1. Adrian Dantley |
| 2. 76ers | 2. Spurs | 1981-82 | 2. Moses Malone |
| 3. Bucks | 3. Lakers | 1982-83 | 3. George Gervin |
| 4. Knicks | 4. Trail Blazers | 1983-84 | 4. Kareem Abdul-Jabbar |
| 5. Bulls | 5. Rockets | 1984-85 | 5. Julius Erving |
| 6. Pacers | 6. Kings | 1985-86 | 6. Mike Mitchell |
| 7. Bullets | 7. Warriors | 1986-87 | 7. David Thompson |
| 8. Hawks | 8. Nuggets | 1987-88 | 8. Alex English |
| 9. Cavaliers | 9. Clippers | 1988-89 | 9. Jamaal Wilkes |
| 10. Nets | 10. SuperSonics | 1989-90 | 10. Bernard King |
| 11. Pistons | 11. Jazz | 1990-91 | |
| 12. -- | 12. Mavericks | 1991-92 | |
| | | 1992-93 | |
| | | 1993-94 | |
| | | 1994-95 | |
| | | 1995-96 | |
| | | 1996-97 | |
| | | 1997-98 | |
| | | 1998-99 | |
| | | 1999-00 | |
| | | 2000-01 | |
| | | 2001-02 | |

| The Best Players and Teams in the 1980-81 Season | | | |
|--|--------------------|--|------------------------|
| Eastern Conference | Western Conference | | Players |
| 1. Celtics | 1. Suns | | 1. Adrian Dantley |
| 2. 76ers | 2. Spurs | | 2. Moses Malone |
| 3. Bucks | 3. Lakers | | 3. George Gervin |
| 4. Knicks | 4. Trail Blazers | | 4. Kareem Abdul-Jabbar |
| 5. Bulls | 5. Rockets | | 5. Julius Erving |
| 6. Pacers | 6. Kings | | 6. Mike Mitchell |
| 7. Bullets | 7. Warriors | | 7. David Thompson |
| 8. Hawks | 8. Nuggets | | 8. Alex English |
| 9. Cavaliers | 9. Clippers | | 9. Jamaal Wilkes |
| 10. Nets | 10. SuperSonics | | 10. Bernard King |
| 11. Pistons | 11. Jazz | | 11. -- |
| 12. -- | 12. Mavericks | | 12. -- |

teams with such dominant reigns like **Michael Jordan** and the **Chicago Bulls** or

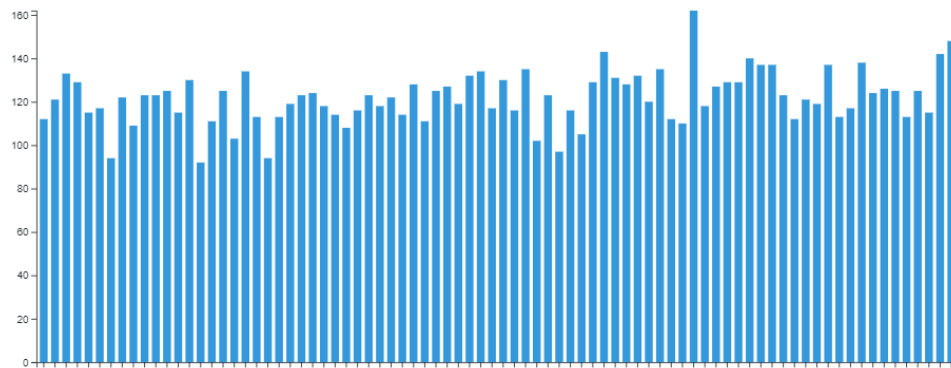
Nuggets in the 1980-81 Season



Winning and Losing Streaks



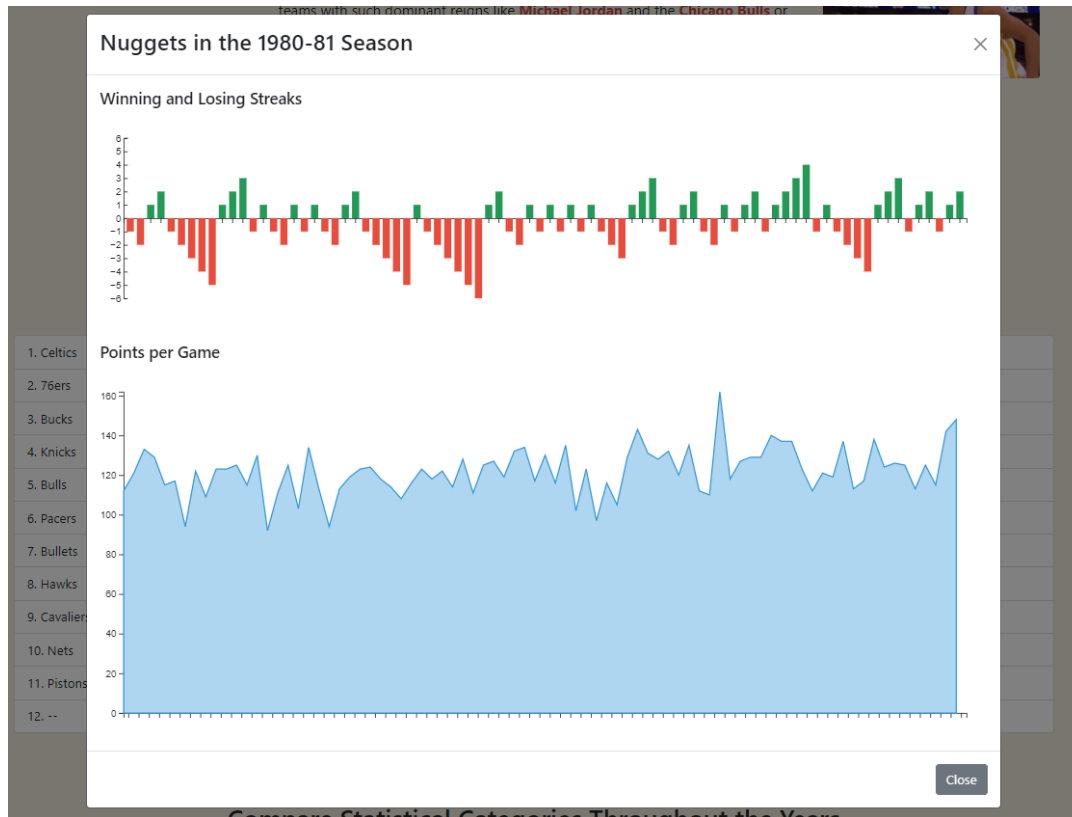
Points per Game



Close

1. Celtics
2. 76ers
3. Bucks
4. Knicks
5. Bulls
6. Pacers
7. Bullets
8. Hawks
9. Cavaliers
10. Nets
11. Pistons
12. --

Compare Statistical Categories Throughout the Years



Compare Statistical Categories Throughout the Years

3-Point Makes Turnovers

