If given access to an NBA team's database, a problem or question I would be more than excited to solve is geared around the draft, trades and free agency use cases, with respect to player comparison. Having the ability to answer this question quickly when those events are nearing a deadline becomes crucial in competing in a highly competitive league. Building a custom internal dashboard with particular categories for analysis would serve to assist the front office and coaching staff in making quicker data driven decisions in those situations.

The scope of the project would consist of several pages or dashboards where the skills and players can be selected for comparison. Categories such as playmaking, shooting, finishing, scoring, defending, rim protecting and rebounding. Taking into account the preferences from the front office and coaching staff in regards to per 100 possessions or per 36 minutes stats and other preferred advanced statistical metrics. Choosing a category could lead to another page with more in depth analysis on the particular skill. Here would be the visualizations of the players selected. Advanced percentages, comparisons, minutes played, positional averages, shot charts from synergy etc.

In order to build such a dashboard, I would need to gather the data from several reliable sources. Second spectrum provides pick handler, screener, driver, iso etc. Per game and season level stats could come from nba.com/stats. While utilizing Basketball Reference for more of the advanced stats. In regards to the tech stack and the end goal being a dynamic custom internal dashboard with Power Bi or Tableau where players from a certain category could be displayed alongside visualizations of their skills over time. Any data warehouse

would be able to house the data gathered from the sources, such as Snowflake or Azure Databricks. Similar to the different SQL versions, with slightly different syntax or choosing between Python and R for programming tasks.

I believe there are many benefits to having this project built in house. Assisting the front office and coaching staff in making more informative, faster, data driven decisions around player comparison would ultimately serve the team by having an objective perspective with visualizations at their disposal. Making the information easier to digest. Personally, building a custom dashboard that would help a team in any way be successful on the court, or any other project in that respect is why I pursued a career in Basketball Analytics. The relationships that can potentially be built between myself, and those in the building throughout the process would only serve me in the future while working for the franchise.

Some challenges that I believe I would face throughout this project include running into the issue of having too many metrics going into a particular category making the point of the analysis weaker. Or what stats are going into perimeter defenders. Along with this being a project more on the larger side, time would need to be dedicated to completing the task step by step.