

DEFENDER IMPACT on METRIC OVER TIME



Dynamic Reporting

WHAT IS THE PROBLEM?

Analyzing defensive player's impact on an opposing player

- Difficult to quantify and visualize defensive impact and contribution of a player.
- Difficult to identify the impact of defensive matchups based on data
 - How do you identify defensive matchups in a game from data?
 - What was the impact of a specific defensive matchup on offensive production?
- Easily visualizing the effect of a defensive matchup



SOLUTION & IMPLEMENTATION

Plot offensive metrics over time as function of defender

- Plotting offensive metrics such as FG% & Points against defensive metrics such as who is guarding the player.
- Visualizing the effects of specific defenders on an offensive player with mentioned metrics.
- Analyzed SV raw data and play by play metrics in order to compile player's direct defensive impact.
 - Euclidean distance between defenders
 - Integrate metrics with SportVU

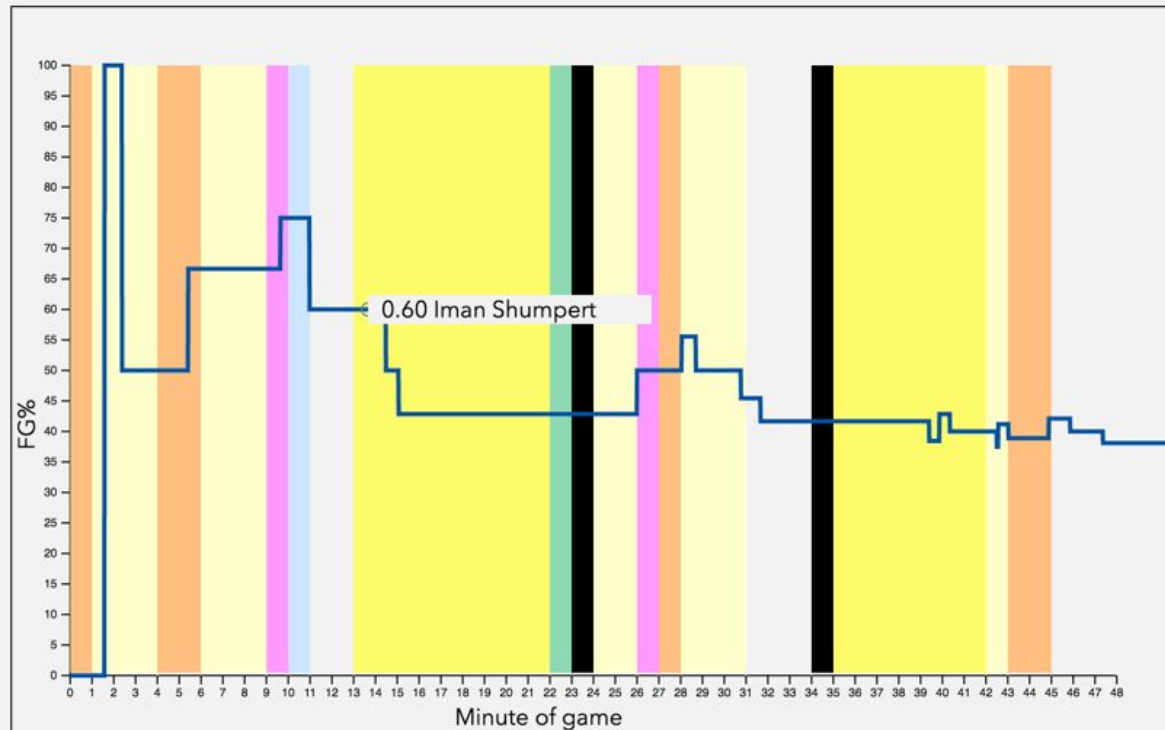


IMPLEMENTATION (cont'd)

Warriors Performance vs. Cavaliers Defenders

Select GSW player to visualize their performance and the impact of their defender:

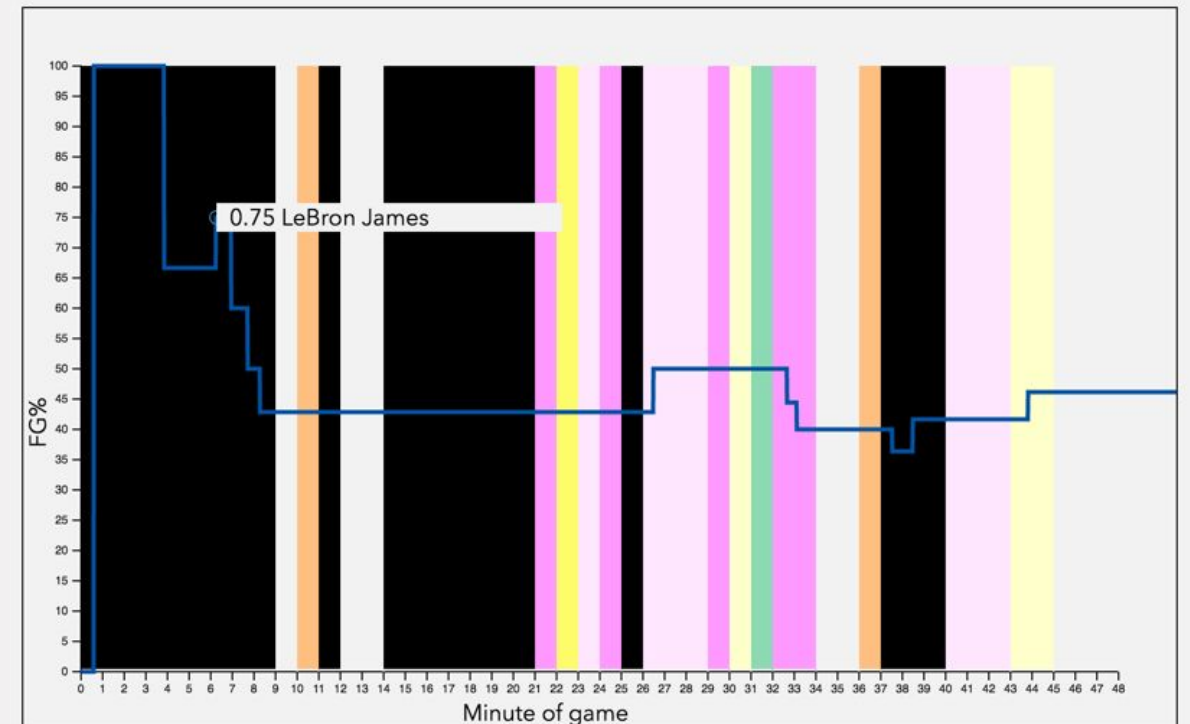
Stephen Curry ▾ FG% ▾



Warriors Performance vs. Cavaliers Defenders

Select GSW player to visualize their performance and the impact of their defender:

Andre Iguodala ▾ FG% ▾



APPLICATIONS

Further usage of the Web Application

- Allows to match up defensive players directly on their performance
- Can change up offensive plays based on specific defenders
- View application at <http://nbahackathon.ngrok.io/home>

