Final

As I worked on this final project Shohei Ohtani closed out the World Baseball Classic taking down his teammate Mike Trout, the best player in baseball, in the bottom of the 9th up one run. Shohei Ohtani has the clutch gene and he might now be the best baseball player in the world.

Visualization 1:

Plot:

Baseball has been historically down in popularity in the last few decades. But around the world it is getting more and more popular. This is due to the MLB's expansion of international scouting and funding of baseball programs around the world. In addition to international leagues like the KBO and NPB in Korea and Japan in Korea and Japan respectively gaining popularity. This growing popularity around the world has allowed international players more opportunities to be signed in the MLB. My favorite example and favorite player is Shohei Ohtani. He is a two way superstar who is the starting pitcher of the Los Angeles Angels and on his off days he is a phenomenal designated hitter. The visualization above shows just how many players in the history of the MLB have come from around the world. The color red in every graph signifies Shohei Ohtani. The marks are the points and the channels are vertical and horizontal spatial position on the map. The area or size of the points is another form of channel.

Visualization 2:

Plot:

Visualization 2

◉ Above .340 On Base Percentage and .450 Slugging ○ 30+ Home Runs

Shohei Ohtani has a case to be MVP as both a hitter and a pitcher. In this age of load management, pitchers are not supposed to hit in fear of them getting injured. This has been happening for decades but Shohei destroys the mould as he is one of the best hitters in the MLB. In 2021 he was one of the only players to hit a ball over 119 mph along with giants like Giancarlo Stanton and Manny Machado and in 2022 his hitting statistics were just as amazing. In the MLB a obp of around .340 means you are a good hitter and a sluggin around .450 means you hit very hard. This visualization shows players with more than 150 at bats which is the amount that qualifies a player for rate statistics in post season awards. Shohei is very high in the spectrum. And when you add on the fact that Shohei drops absolute bombs his incredible hitting prowess is even more justified. If we only count player with a obp above .340, a slg above .450, who hit more than 30 homeruns we see Ohtani-san among Hall of Fame locks like Mike Trout, Aaron Judge, and San Diego's own Manny Machado. Oh and by the way he also pitches at a MVP level too. The marks are the points and the channels are vertical and horizontal spatial position. The color is another form of channel.

Plot:

Visualization 3

Plot:

Shohei Ohtani is often compared to Babe Ruth since they were both pitchers who hit hard. But it is not often remembered that Babe Ruth only had one true two way season in 1918 while Ohtani is on his second of many more to come. As a pitcher Ohtani is one of the best in the game. ERA+ is a stat in baseball that shows how good a pitcher is at preventing the opponent from scoring where 100 is the league average that year. Shohei had an ERA+ of 172, this means he was 72% better than the average pitcher in 2022. When we look at starting pitchers that were qualified for rate statistics (>=150 innings pitched) we again see Big Sho with living legends and hall of fame locks like Clayton Kershaw, Justin Verlander, and Sandy Alcantra. The marks are the bars constructed of lines and the vertical spacial position is the channel along with the color.

Visualization 4:

Plot:

At its core, baseball is a series of 1 v 1 matchups between a pitcher and a hitter. Shohei Ohtani plays for the Los Angeles Angels who play in the American League. In the American league pitchers can have designated hitters hit instead of them. Fielding independent pitching, FIP, is a stat that represents a pitcher's ability without the influence of his team's defence. As a teams defence can ultimately undervalue a pitcher. Lower is better, and a 3 is typically considered a good FIP. This plot shows the FIP of Shohei in comparison to his teammates on the Los Angeles Angels. As we can see Shohei has the lowest FIP and WHIP on the team. The marks are the bars constructed of lines and the channel is the vertical spatial position for both in the stacked data. The color is a channel to describe the different stats in the stacked data.

Visualization 5:

Plot:

Now lets compare the OPS+ of the two leagues in the MLB, the American League and National League so we can contextualize the hitting environment in 2022. Although slight, the American League has a larger range of OPS+, potentially signifying a better hitting league. The area of the interquartile range is a channel along with the vertical position of the lines representing the q1, q3, and median. The verticle lines are channels for the range of the data and the horizontal spacing is a channel for the different leagues in the MLB. The marks are the lines that create the boxes and ranges.