INFSCI 2310 Final Report

**Shohei Ohtani’s batting performance in MLB**

Figure 1-1: Line Plot (Subplots)

一張含有 行, 繪圖, 圖表, 斜率、斜坡 的圖片

自動產生的描述

Figure 1-2: Line Plot

一張含有 行, 繪圖, 螢幕擷取畫面, 圖表 的圖片

自動產生的描述

Legend explained:

* Different colors represent different batting statistics.
* You can see the titles of subplots on figure 1 or the legend on figure 2 for more details.

Method for this visualization:

* Imported “seaborn” module for the background.
* Used subplots to display the statistics in the same figure to comparison differences. While the statistics in figure 2 are all percent, they can display as multiple line plot.

Description:

* Since the units are not uniform, I took those plots apart to avoid confusion.
* Obviously, Ohtani’s batting performance has improved these years.

Figure 2: Scatter Plot

一張含有 體育, 運動游戲, 文字, 運動配備 的圖片

自動產生的描述

Legend explained:

* Different colors of dots represent different types of balls.
* Different shapes of dots represent different result of hit by him.
* The red and translucent rectangle represent strike zone in game.
* For more details, you can check from the legend in the figure 2.

Method for this visualization:

* By gathering the x, y position of each case, reappearing the sudden of the ball.
* Create an inset axis for the image to make the visualization more vivid.

Description:

* Thanks to this lively visualization, we could imagine many cases and different results of hit he made in games.

Figure 3: Pizza Plot

一張含有 文字, 螢幕擷取畫面, 圖表, 圓形 的圖片

自動產生的描述

Legend explained:

* Blue slices represent basic statistics.
* Red slices represent more advanced statistics.
* Darker parts mean his percentile rankings in MLB, and vice versa.

Method for this visualization:

* First I import “mplsoccer”, which is a module to analyze football or soccer.
* Cleaned data by pandas, and then extract the most important part.
* Divided the content into two parts due to their type.
* Imported “imageio” module to read picture without background, making the visualization more creative.

Description:

* To completely realize the meaning behind this visualization, you need to have some basic understanding about baseball. For example, k% the lower the better since that means Ohtani had lower chance to be strike out.
* However, most percentiles are the higher the better, which means Shohei Ohtani is definitely one of the most outstanding players in MLB now.