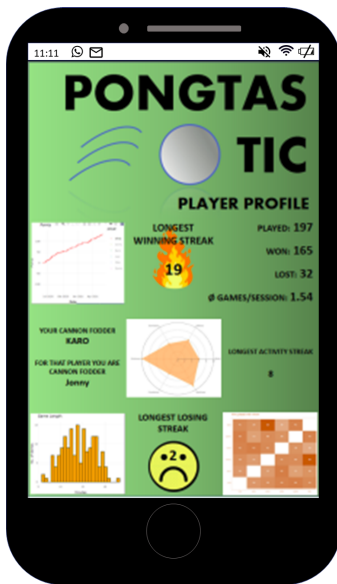


Pongtastic

Team MarHack: Jonny, Quirin, Chris, Luis, Karo

The Idea



Data Example

```
#read data
simulated_data <- data.table(read.csv(file = "../Data/game_simulation_data.csv"))
simulated_data[1:5,]
```

```
##      player1 player2 time_stamp time_to_score who_serves who_scores player_skill1
## 1:         1       0  36.62534    36.62534         2         1         1
## 2:         2       0  49.27873    12.65339         2         1         1
## 3:         3       0  86.19217    36.91344         2         1         1
## 4:         4       0 112.89446    26.70230         2         1         1
## 5:         5       0 133.00451    20.11005         2         1         1
##      player_skill2 game_date game_id player1_id player2_id
## 1:                3 2021-01-02      1      Chris      Luis
## 2:                3 2021-01-02      1      Chris      Luis
## 3:                3 2021-01-02      1      Chris      Luis
## 4:                3 2021-01-02      1      Chris      Luis
## 5:                3 2021-01-02      1      Chris      Luis
```

```
#read data
dt <- simulated_data
```

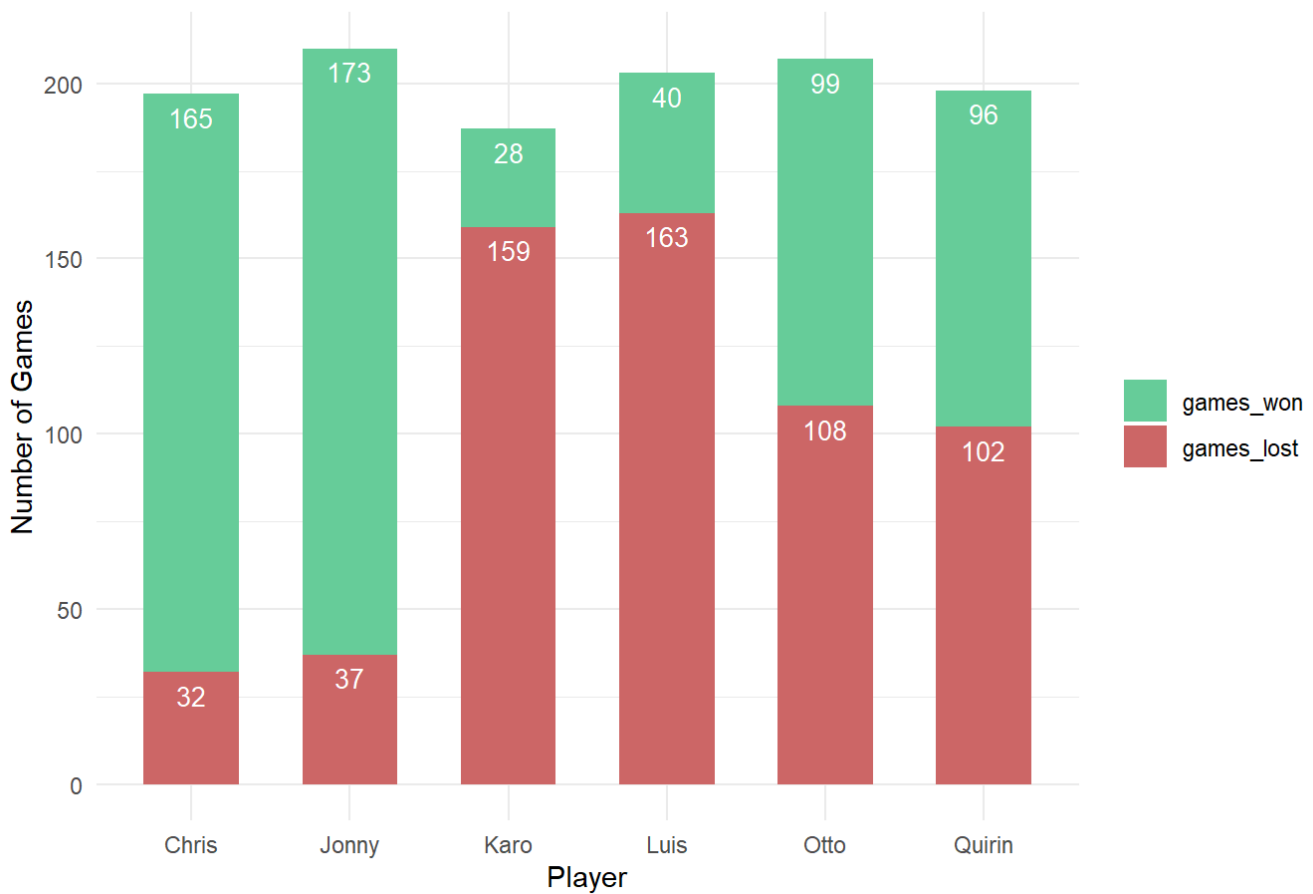
Player statistics

```
player_stat
```

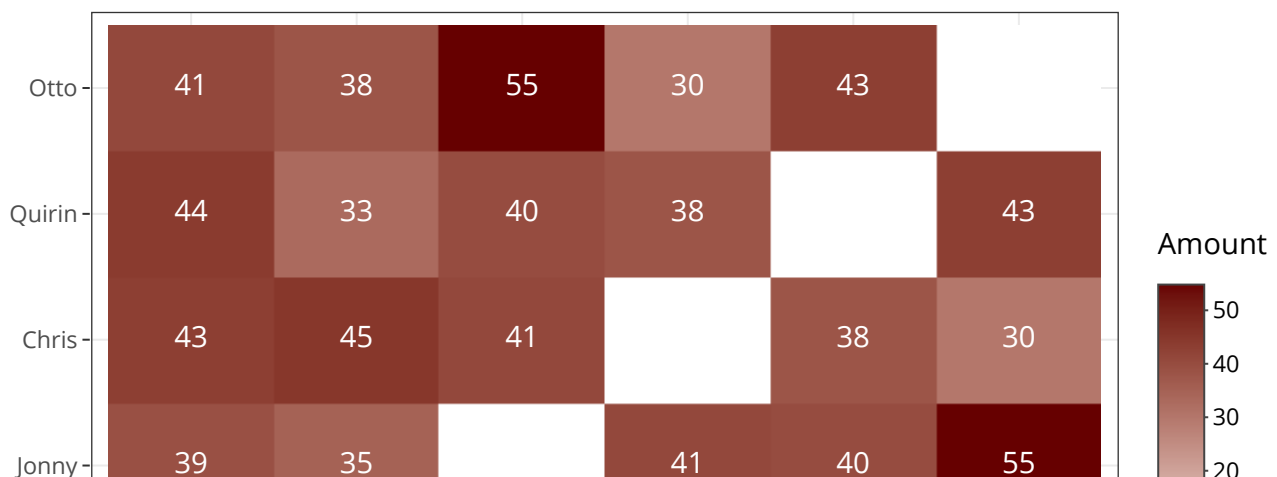
```
##      player games_won games_lost mean_duration games_per_day
## 1:   Luis      40      163      14.87      1.532020
## 2:   Karo      28      159      14.68      1.471751
## 3:  Jonny     173       37      14.98      1.548980
## 4:  Chris     165       32      14.76      1.541219
## 5: Quirin      96      102      15.64      1.529118
## 6:   Otto      99      108      15.41      1.512479
```

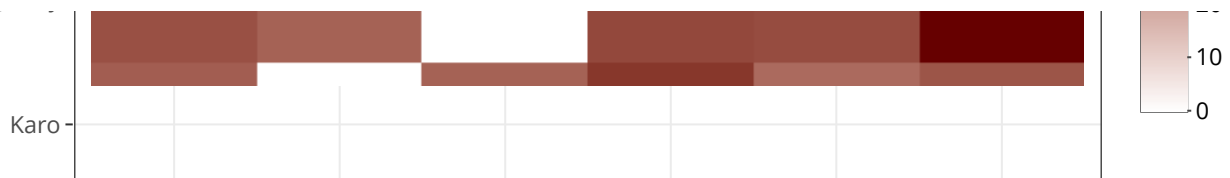
Player Plots

Plot of won and lost games

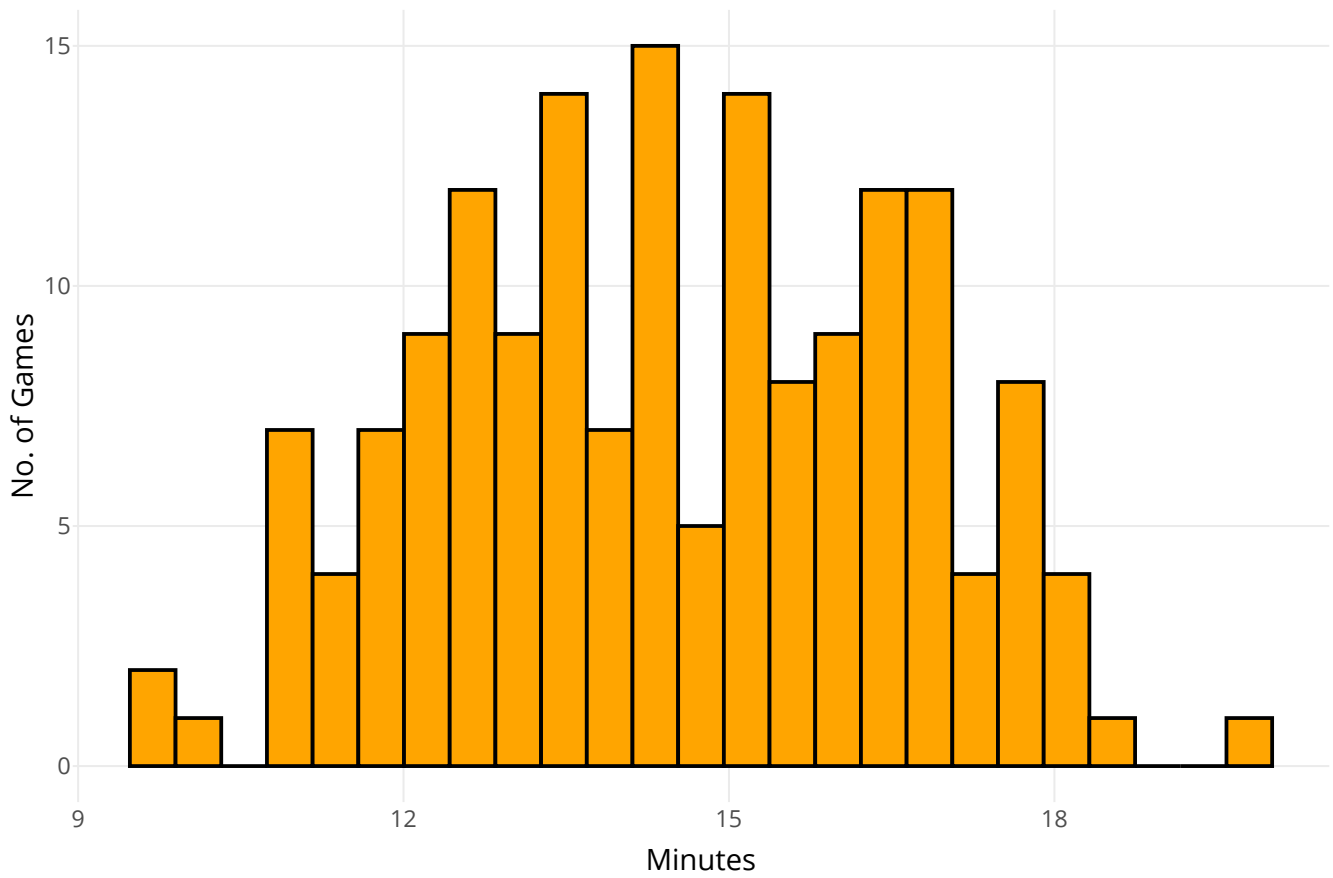


Who played with whom

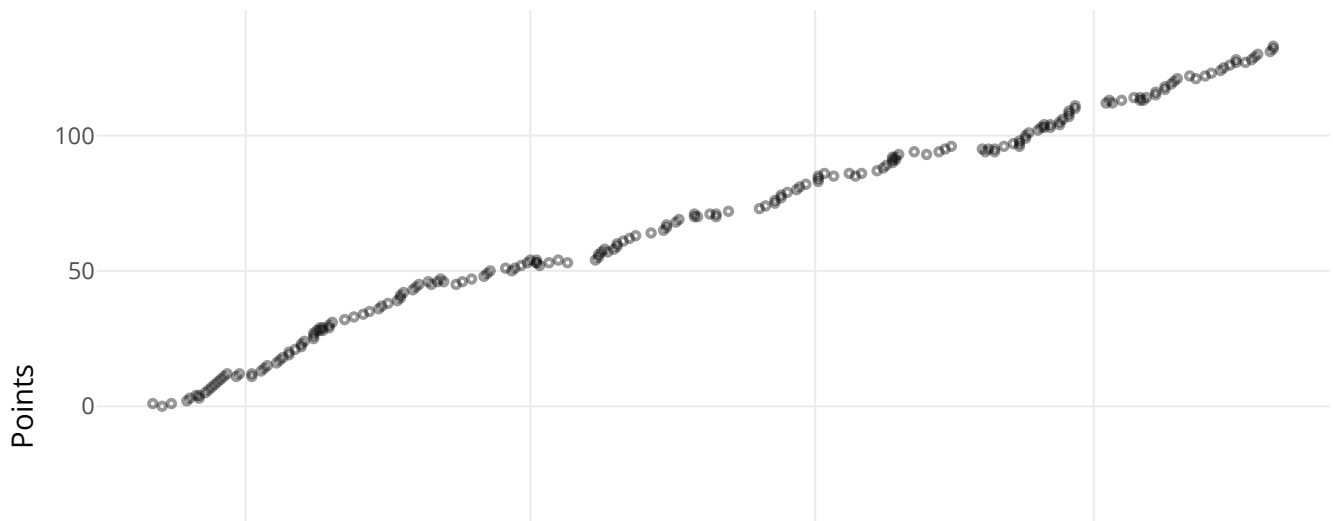




Game Length

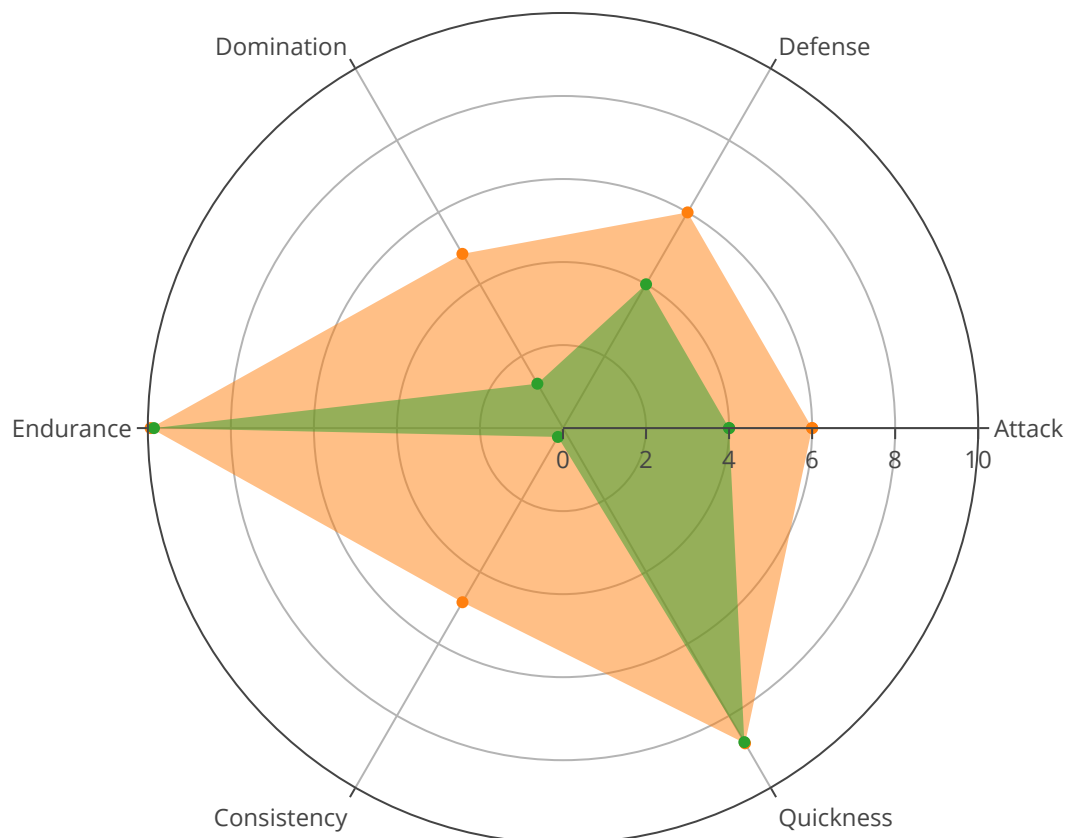


Points



-50

```
## No scatterpolar mode specifed:  
##   Setting the mode to markers  
##   Read more about this attribute -> https://plotly.com/r/reference/#scatter-mode  
## No scatterpolar mode specifed:  
##   Setting the mode to markers  
##   Read more about this attribute -> https://plotly.com/r/reference/#scatter-mode  
## No scatterpolar mode specifed:  
##   Setting the mode to markers  
##   Read more about this attribute -> https://plotly.com/r/reference/#scatter-mode
```



Data
Collection

- Youtube
- Download MP4

Data
Preprocessing

- Extract image from MP4
- Time resolution [s]

Image
Classification

- PyTesseract
- Get Score from image

Create time
series

- Time resolution [s]
- Score both players
- Additional information

Data
Visualization

- See results from Karo and Jonny