

# COUNTER PICK



# PROJET

## What is counter pick?

League of legends is a 5v5 real-time strategy game in MOBA style, to understand: multiplayer online battle arena

A counter pick in League of Legend is the act of taking a very effective champion against his direct opponent.





## 14 SEASONS OF RANKED WHY COUNTERPICK ?

Presentations are communication tools that can be used as demonstrations, lectures, speeches, reports, and more. It is mostly presented before an audience.



150M +

Player in the world

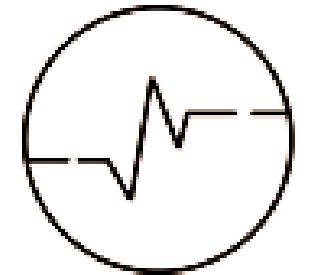
- Riot games

riot games is owned by Tencent, a company that has invested in gaming and not only

- Ranking

The game is intended to be very competitive and has many ranks being almost synonymous with success in life in certain countries.

# pandas



The Python  
Graph Gallery



# OVH.com

# TOOLS

This tool used

Pandas and the Python Graph Gallery allowed us to create visually adaptive graphs as well as various functional graphs

We used Jupyter to display all the graphs in a simple and organized manner

OVH used a central server with its PostgreSQL database, as well as GitHub to store and versioned the code



Project

# HOW WE START TO DEFINE A COUNTERPICK?



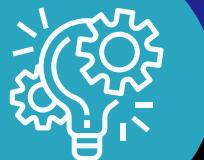
## PLAYER DATABASE

we found a database that contained player clashes with their champion and a winner indicator



## CHAMPION DATABASE

We created a csv containing all the champions of the game and judged a lot of their characteristics given that riot games did it in a very vague way and with bad information

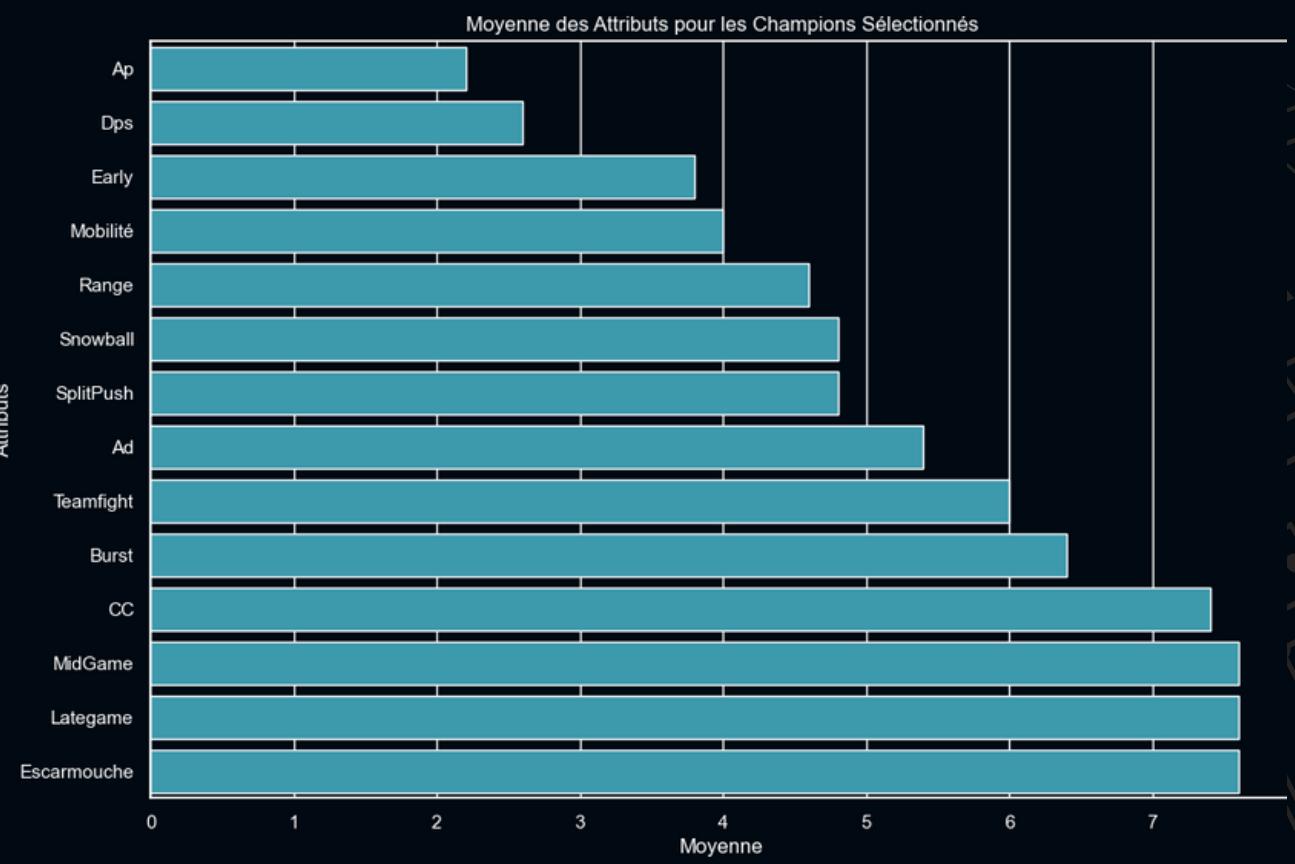
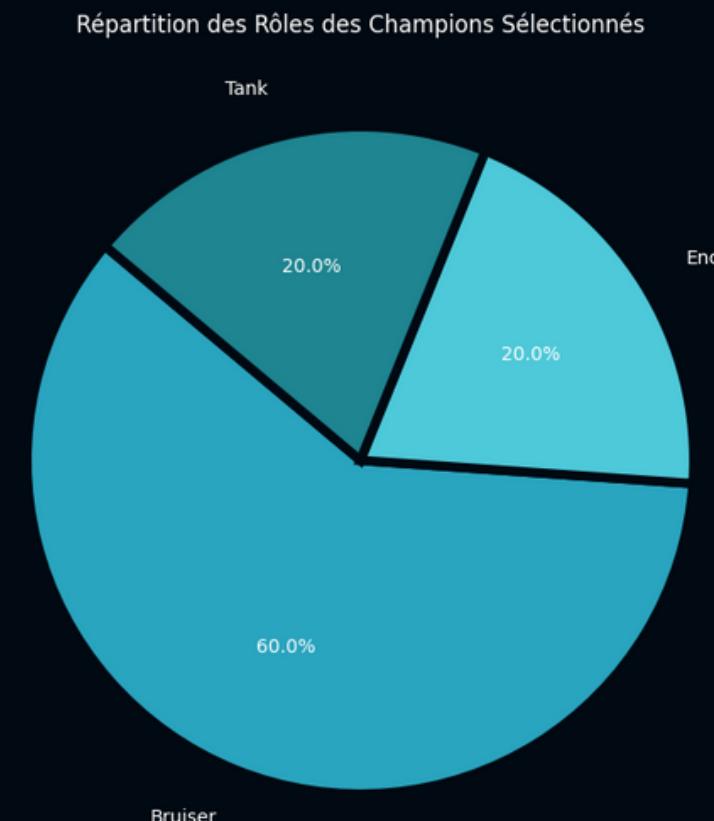
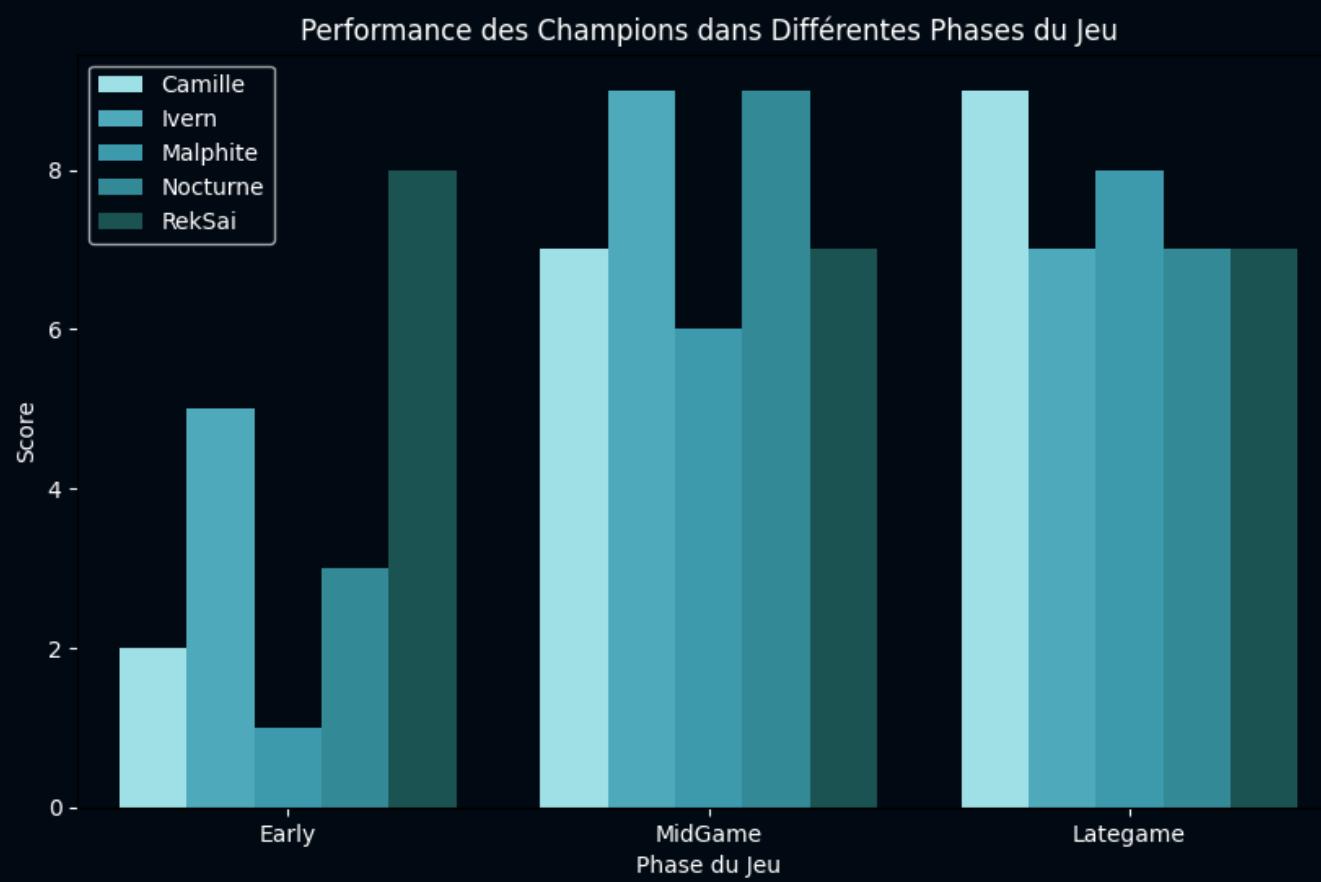


## REFLEXION

we then applied several information processing

PROJECT

# HOW WE START TO DEFINE A COUNTERPICK ?





- TOP: 42
- JUNGLE: 41
- MID: 39
- ADC: 23
- SUPPORT: 34

# CONCRETE EXAMPLE TOPLANE

The toplane is a role quite distant from the others, which makes the counterpick all the more effective

**42**

Champions

**56%**

Win if counterpick





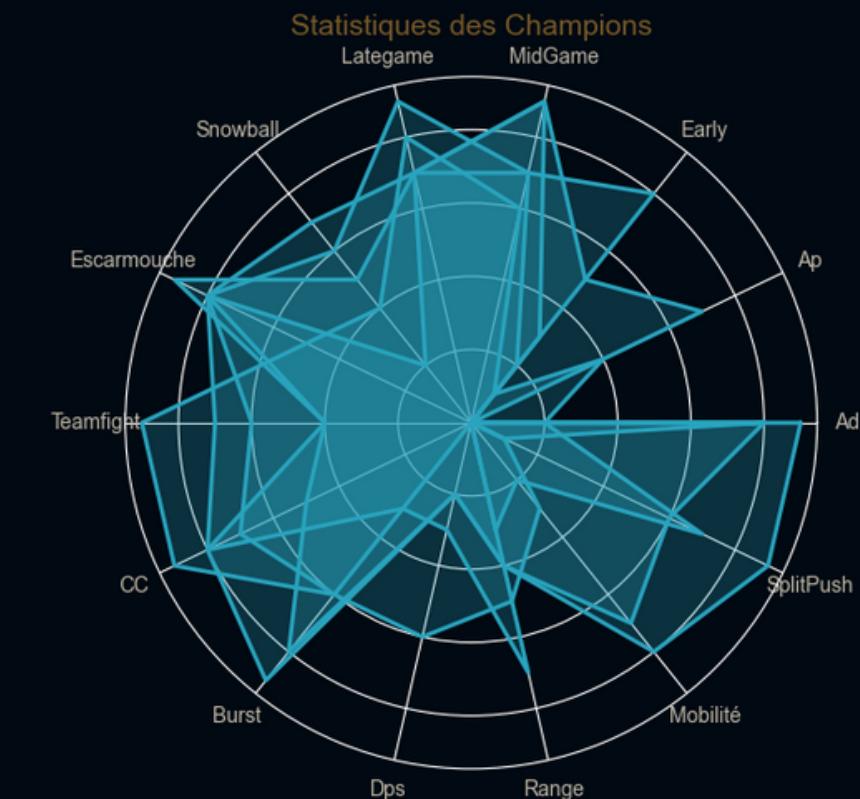
## WHAT WE HAVE DONE

THIS GRAF WAS INTENDED TO SEARCH FOR INTERESTING INFORMATION TO COMPARE BETWEEN THE CHAMPIONS AND OTHER NOTABLE CHARACTERISTICS OF THE COUNTER-PICK

## CORRELATION MATRIX

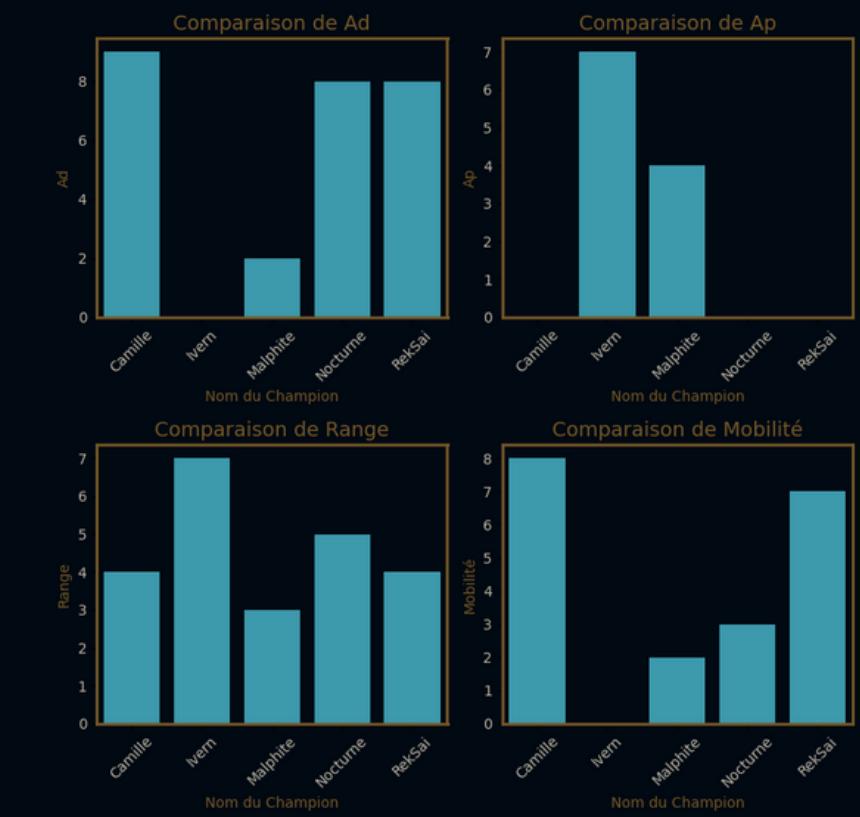
**TOP COUNTER**  
TO SEE THE CORRELATION

Matrice de Corrélation des Caractéristiques des Champions Sélectionnés														
Ad	Ap	Early	MidGame	Lategame	Snowball	Escarmouche	Teamfight	CC	Burst	Dps	Range	Mobilité	SplitPush	
Ad	1.00	-0.98	0.12	-0.10	0.26	0.90	0.51	-0.03	-0.56	0.85	0.33	-0.41	0.86	0.36
Ap	-0.98	1.00	-0.08	0.20	-0.23	-0.93	-0.39	-0.07	0.55	-0.86	-0.27	0.54	-0.83	-0.38
Early	0.12	-0.08	1.00	0.24	-0.64	-0.20	0.75	-0.89	-0.87	-0.02	0.15	0.33	0.19	-0.25
MidGame	-0.10	0.20	0.24	1.00	-0.58	-0.04	0.52	-0.61	-0.15	-0.58	0.87	0.88	-0.44	-0.89
Lategame	0.26	-0.23	-0.64	-0.58	1.00	0.23	-0.33	0.66	0.52	0.58	-0.48	-0.52	0.49	0.82
Snowball	0.90	-0.93	-0.20	-0.04	0.23	1.00	0.22	0.25	-0.31	0.70	0.45	-0.46	0.61	0.21
Escarmouche	0.51	-0.39	0.75	0.52	-0.33	0.22	1.00	-0.85	-0.78	0.20	0.54	0.46	0.44	-0.25
Teamfight	-0.03	-0.07	-0.89	-0.61	0.66	0.25	-0.85	1.00	0.70	0.26	-0.43	-0.70	0.00	0.52
CC	-0.56	0.55	-0.87	-0.15	0.52	-0.31	-0.78	0.70	1.00	-0.34	-0.32	-0.02	-0.49	0.11
Burst	0.85	-0.86	-0.02	-0.58	0.58	0.70	0.20	0.26	-0.34	1.00	-0.21	-0.73	0.96	0.79
Dps	0.33	-0.27	0.15	0.87	-0.48	0.45	0.54	-0.43	-0.32	-0.21	1.00	0.54	-0.13	-0.73
Range	-0.41	0.54	0.33	0.88	-0.52	-0.46	0.46	-0.70	-0.02	-0.73	0.54	1.00	-0.53	-0.79
Mobilité	0.86	-0.83	0.19	-0.44	0.49	0.61	0.44	0.00	-0.49	0.96	-0.13	-0.53	1.00	0.71
SplitPush	0.36	-0.38	-0.25	-0.89	0.82	0.21	-0.25	0.52	0.11	0.79	-0.73	-0.79	0.71	1.00



## RADAR STATS

**TOP COUNTER**  
TO HAVE AN OVERVIEW



## BARPLOT

**TOP COUNTER**  
TO DEFINE WHAT MAKE THEM A CONTERPICK



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# WHO TO TAKE AGAINST DR MUNDO?



## ATTRIBUTES

Search for correlation between attributes  
that we counterpick them



## ROLES

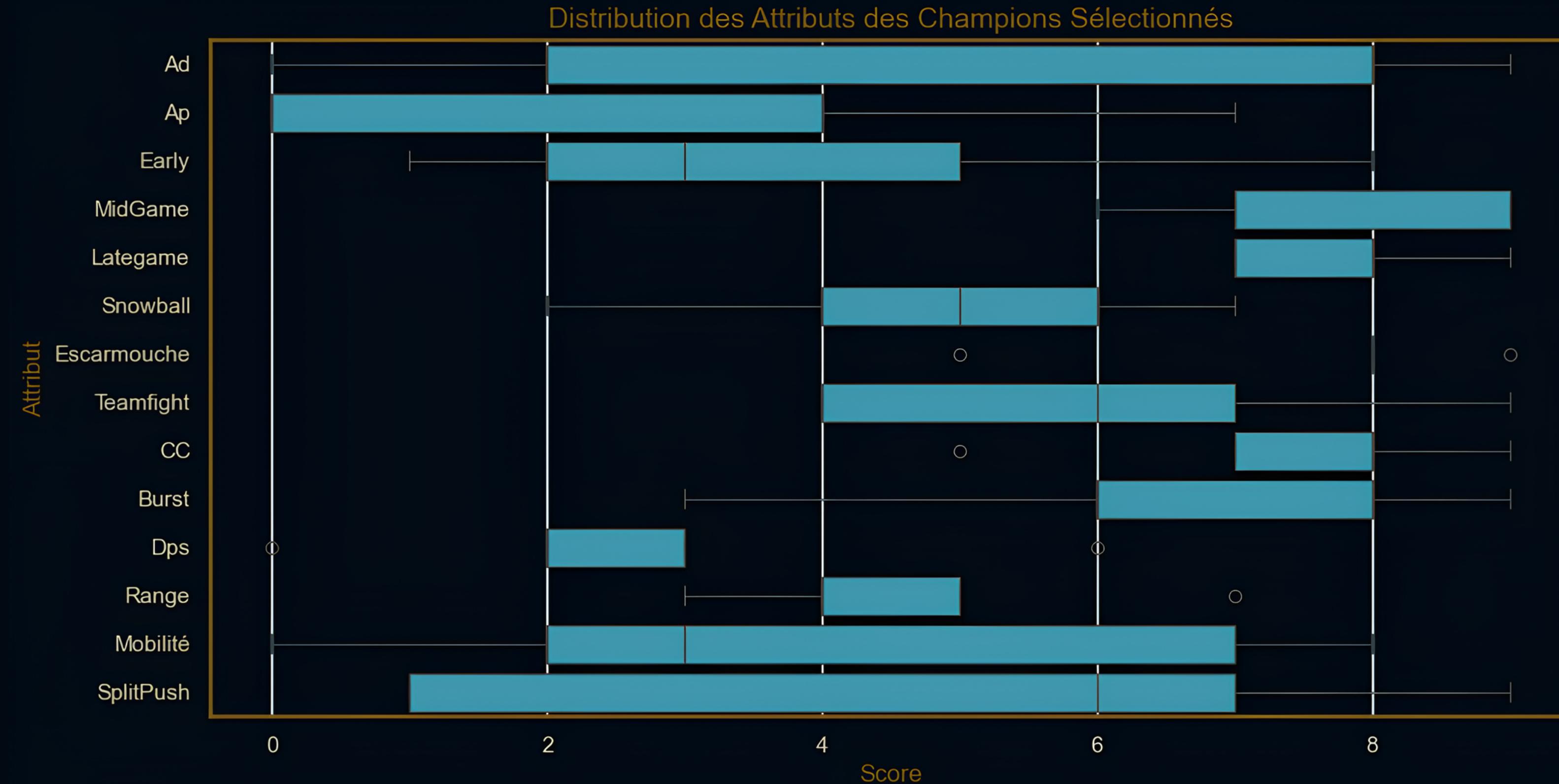
Search for roles most likely to have a better  
chance of winning against target champions



## CHAMPIONS

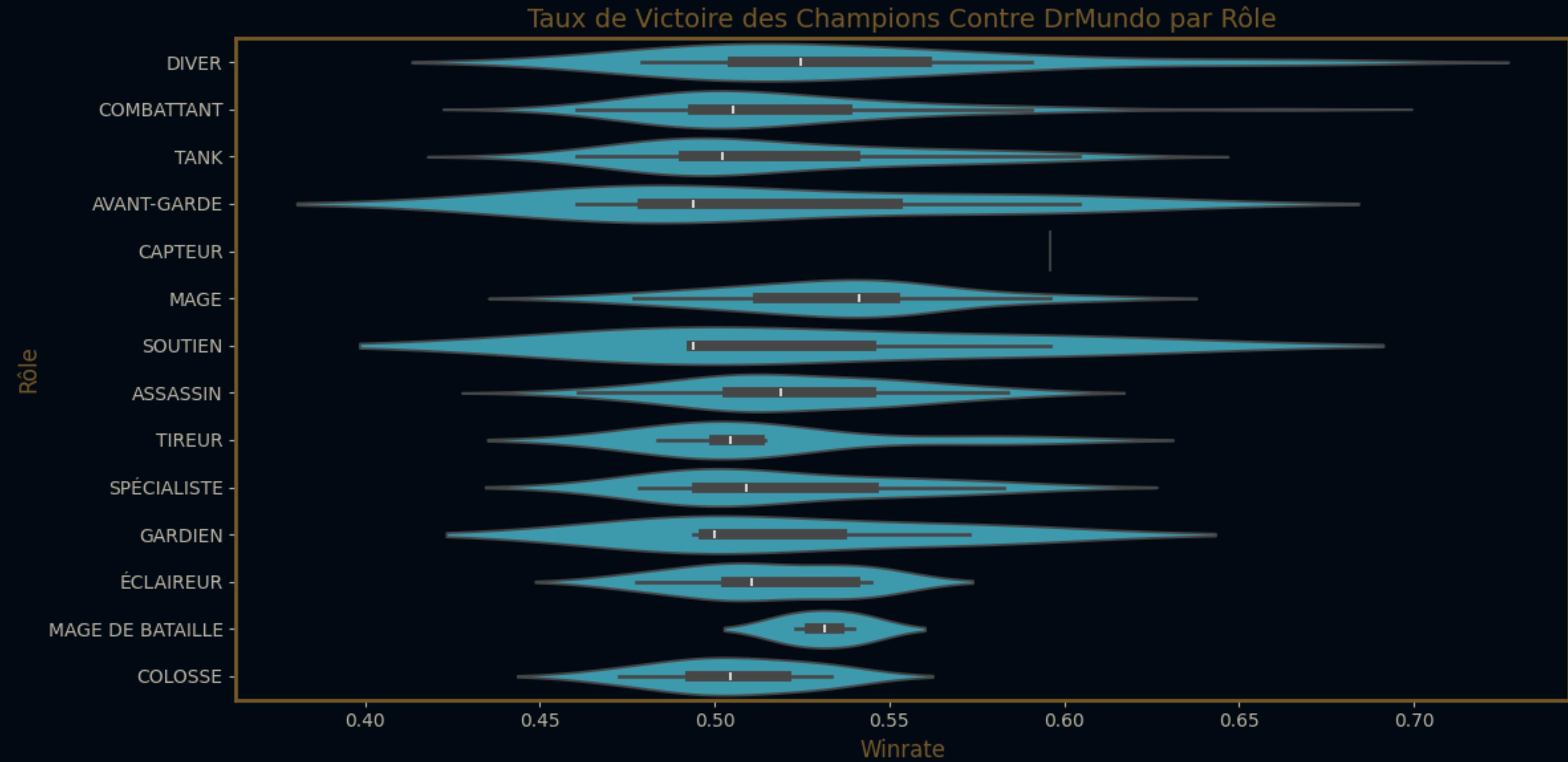
Search for champions with the best winrate  
against target champions

# DISTRIBUTION DES ATTRIBUTS



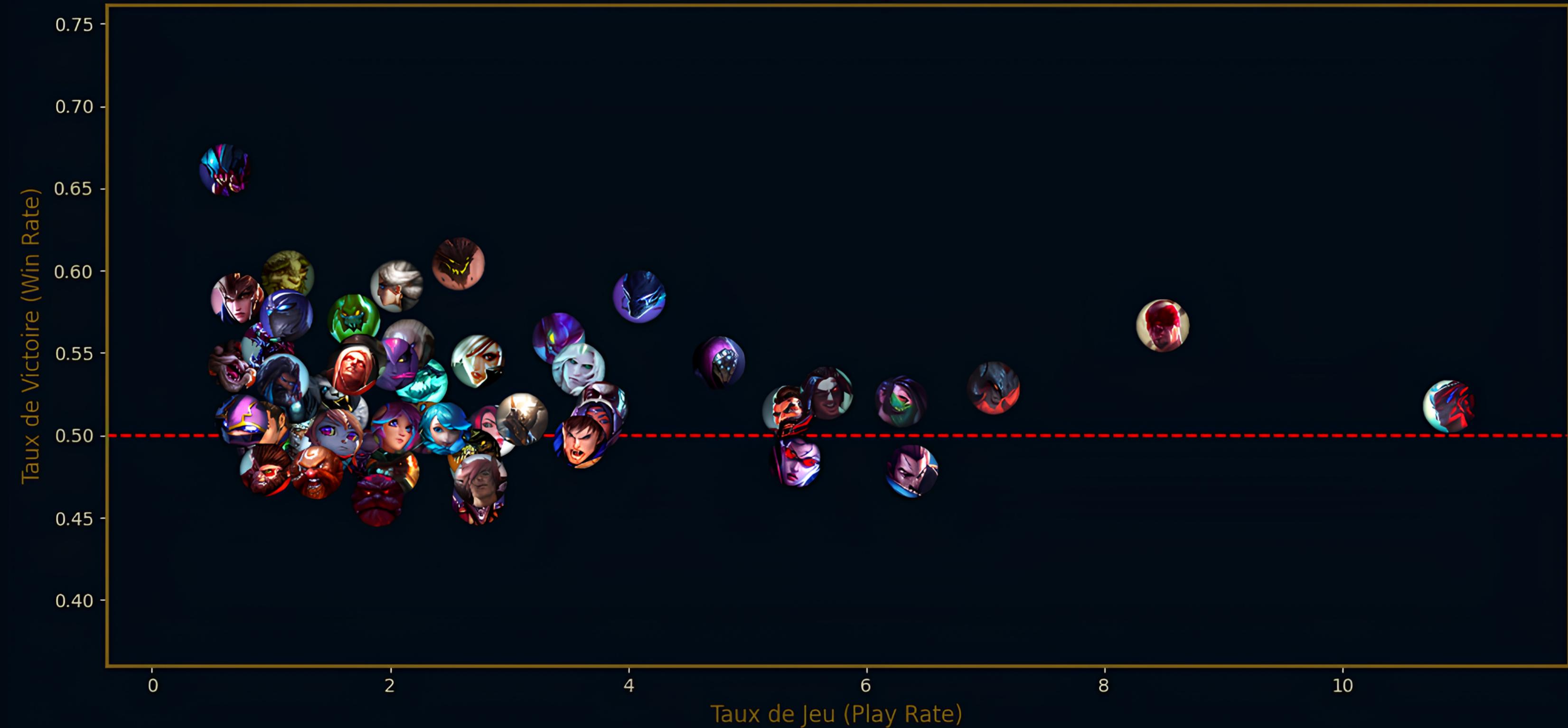
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# GRAPHIQUE PAR ROLES



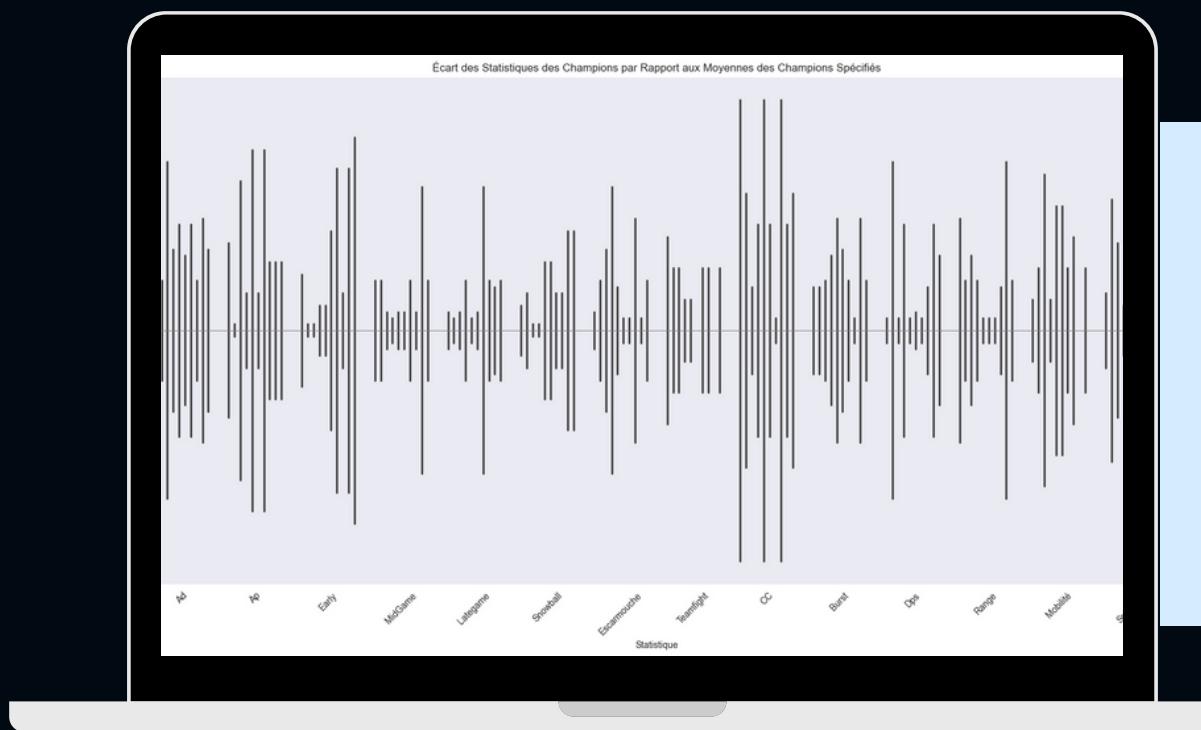
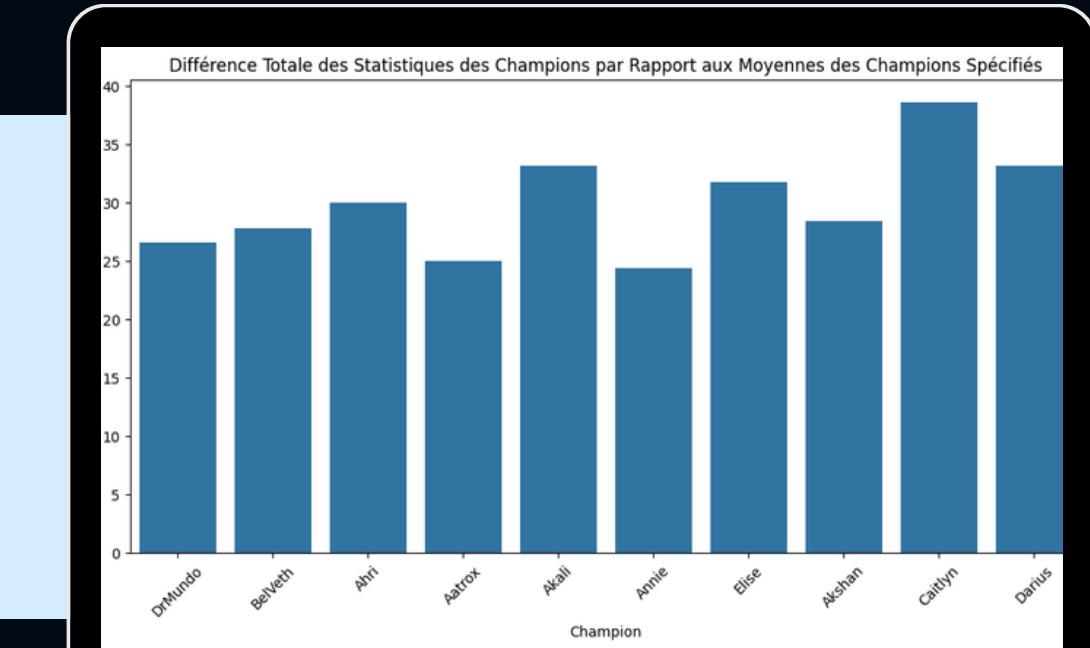
# PROJECT

# GRAPHIQUE PAR CHAMPIONS



# HOW TO DEFINE GENERAL COUNTER

DEVIATION FROM THE  
MEAN  
IN GENERAL



VISUALIZATION OF THE  
DEVIATION FROM THE  
MEAN  
FOR EACH DATA POINT





# THANK YOU