Task describtion

# Why is the problem relevant?

# In our current times, esports have become increasingly popular and generate a growing number of viewers. This surge in popularity is accompanied by an increase in the sums of money earned in the industry through advertising revenue and prize money. Winning games and tournaments has become crucial for esports teams.

# One of the most popular games in the esports industry is League of Legends, published by Riot Games. It occupies four out of the top five slots on the list of peak viewer counts for esports tournaments[[1]](#footnote-1). In a League of Legends game, the first phase is known as the draft, during which both teams select their champions. With over 140 different champions, each with unique abilities and varying strengths, the champions chosen in the draft have a significant impact on a team's chances of winning.

# Selecting the best champions during the draft can be challenging due to the numerous possibilities. Therefore, a program that assists coaches and players in choosing their champions and increases their chances of winning the game would be beneficial.

# Whats different in this Work?

# Most research in this field focuses on the game DOTA 2, which has a large esports community and a more open approach to real-time data during games and game statistics. Although League of Legends and DOTA 2 share similar gameplay mechanics, creating a general model for both games is challenging due to the differences in champions and their strengths.

# Other works have explored League of Legends by analyzing both draft data and in-game data [1]. However, the aim of this work is not to predict the winner of a match in progress, but rather to support teams during the draft phase. Therefore, only draft data and champion statistics will be considered in this work. In determining the likelihood of winning, the individual performance of a player on a specific champion is more critical than the overall performance of champions [2]. Nevertheless, the patches have a significant impact on the strength of the champions. To account for the frequent changes and balancing patches from Riot Games, this approach will use player-specific data in combination with overall champion performance.

# Whats the Task?

# In this work, I will develop an AI model to predict the winner of a professional League of Legends match after the draft phase. To achieve this, I will train the AI using match data from the previous year. The win rates of different players and champions overall will be interchangeable, allowing the model to be adapted to any team combination and for every new patch when champion win rates change.

# The picked champions will serve as the input for the model, and the output will indicate which team has a higher probability of winning in that particular matchup. To evaluate the model's performance, I will attempt to predict the results of the MSI games this year.

1. https://www.statista.com/statistics/507491/esports-tournaments-by-number-viewers-global/ [↑](#footnote-ref-1)