

Maximizing CLOUD9 League of Legends Win Rate



By Jonathan Lee

Data Overview

- Dataset includes data from high ranking (Diamond I to Master) competitive matches.
- 9,879 Observations.
- Data includes characteristics of each match at 10 minutes from start of match.
- Target variable is whether the match resulted in a win or loss.
- Logistic Regression model was capable of correctly predicting 72.26% of wins or losses based on the data collected

Important Terms

- Ward: An item that players can place on the map to reveal the nearby area. Very useful for map/objectives control.
- Assist: Awards partial gold and experience points when damage is done to contribute to an enemy's death.
- Elite Monsters: Monsters with high hp/damage that give a massive bonus (gold/XP/stats) when killed by a team.
- Dragon: AKA Drake. This powerful neutral monster grants various permanent effects and buffs when killed by a team.
- Herald: A monster that spawns on the eighth minute. Grants a buff that allows the user to spawn the Herald for your team to help push towers and lanes.

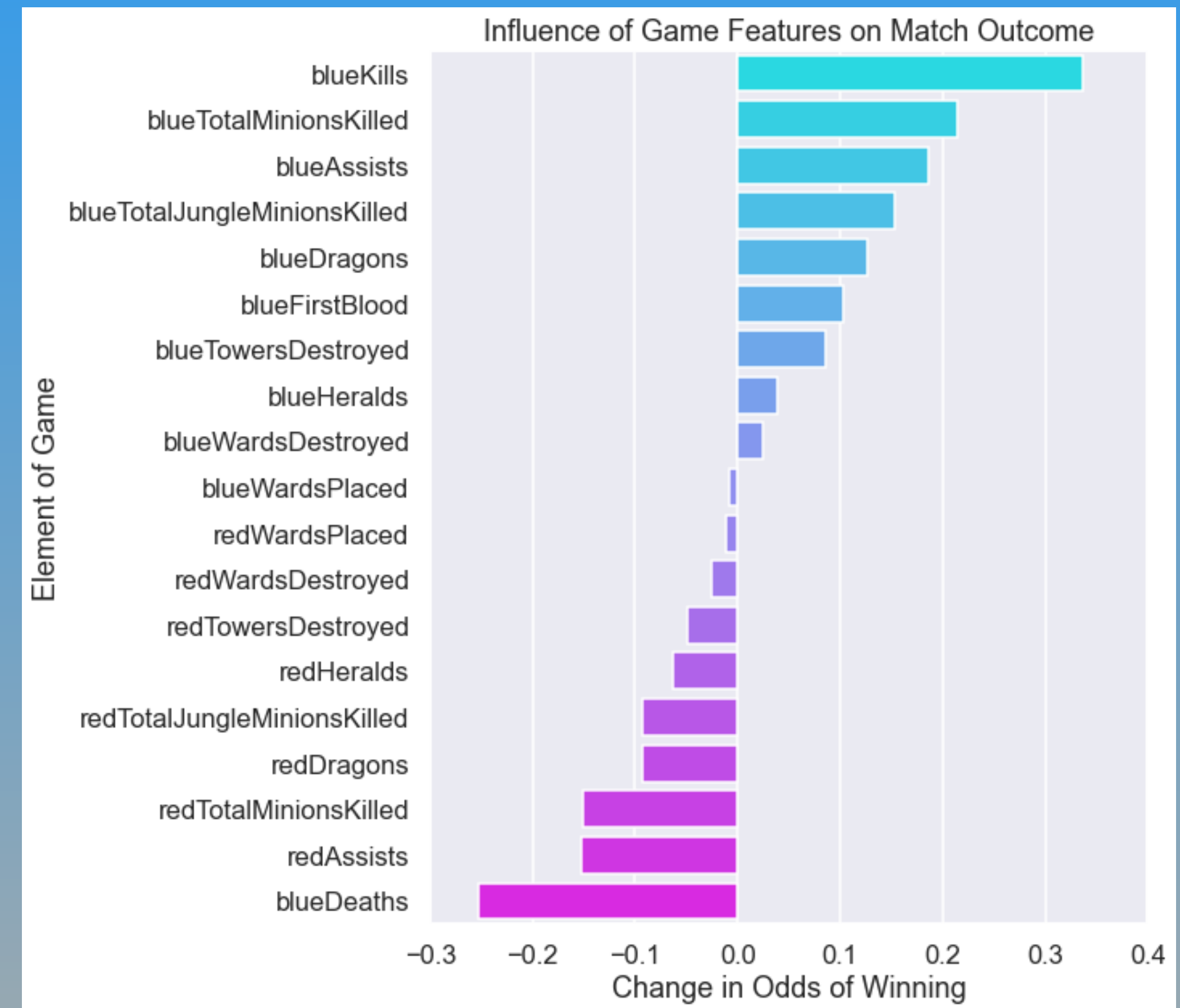
Important Terms

- Tower: A structure that blocks the enemy's path to the base. They take high damage and fire at opponents within a certain radius.
- Gold: Currency awarded for killing monsters or enemy players as well as for completing objectives.
- Level: Champion level. Start at 1. Max is 18.
- Minions: Non-player characters (NPCs) that spawn from each team's base.
- Jungle Minions: NPC that belong to NO TEAM. They give gold and temporary buffs when killed by players.

What Factors Most Influenced
the Outcomes of Matches?

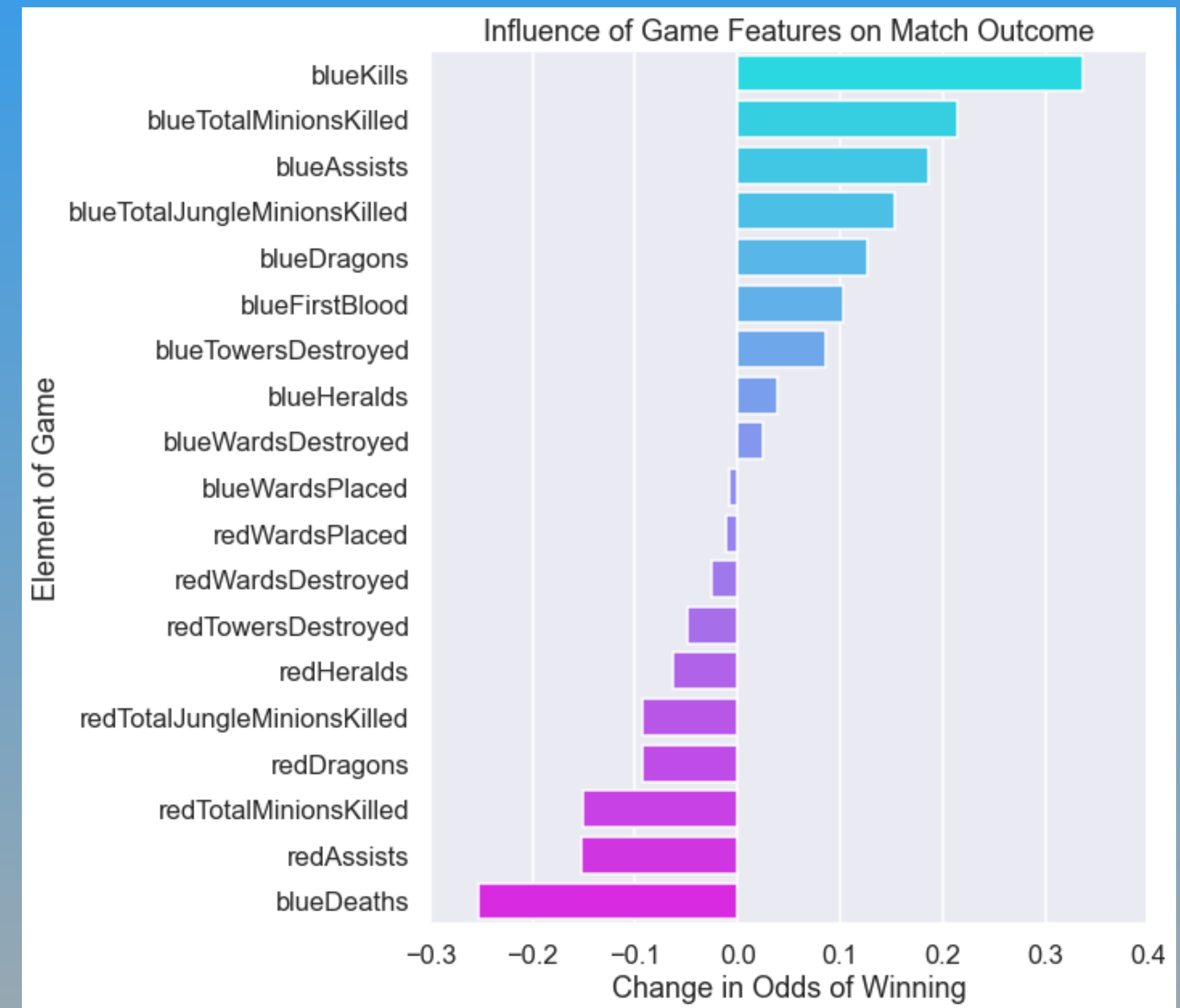
Most Important Attributes

- Champion Kills
- Lane Minion Kills
- Jungle Minion Kills
- Dragons



Least Important Attributes

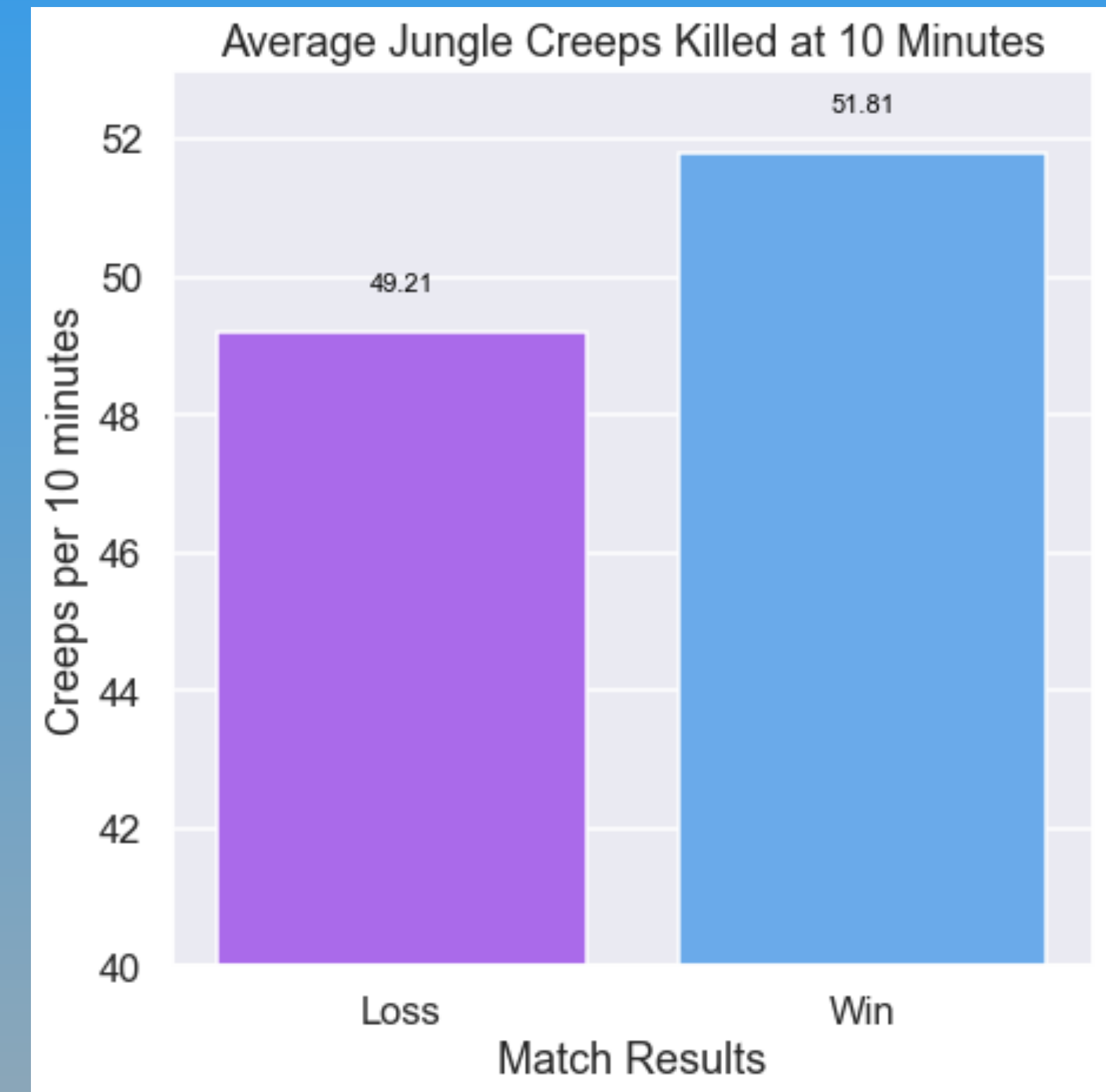
- Vision Wards
- Towers Destroyed
- Heralds
- First Blood



What Should Training/Drills
Look Like?

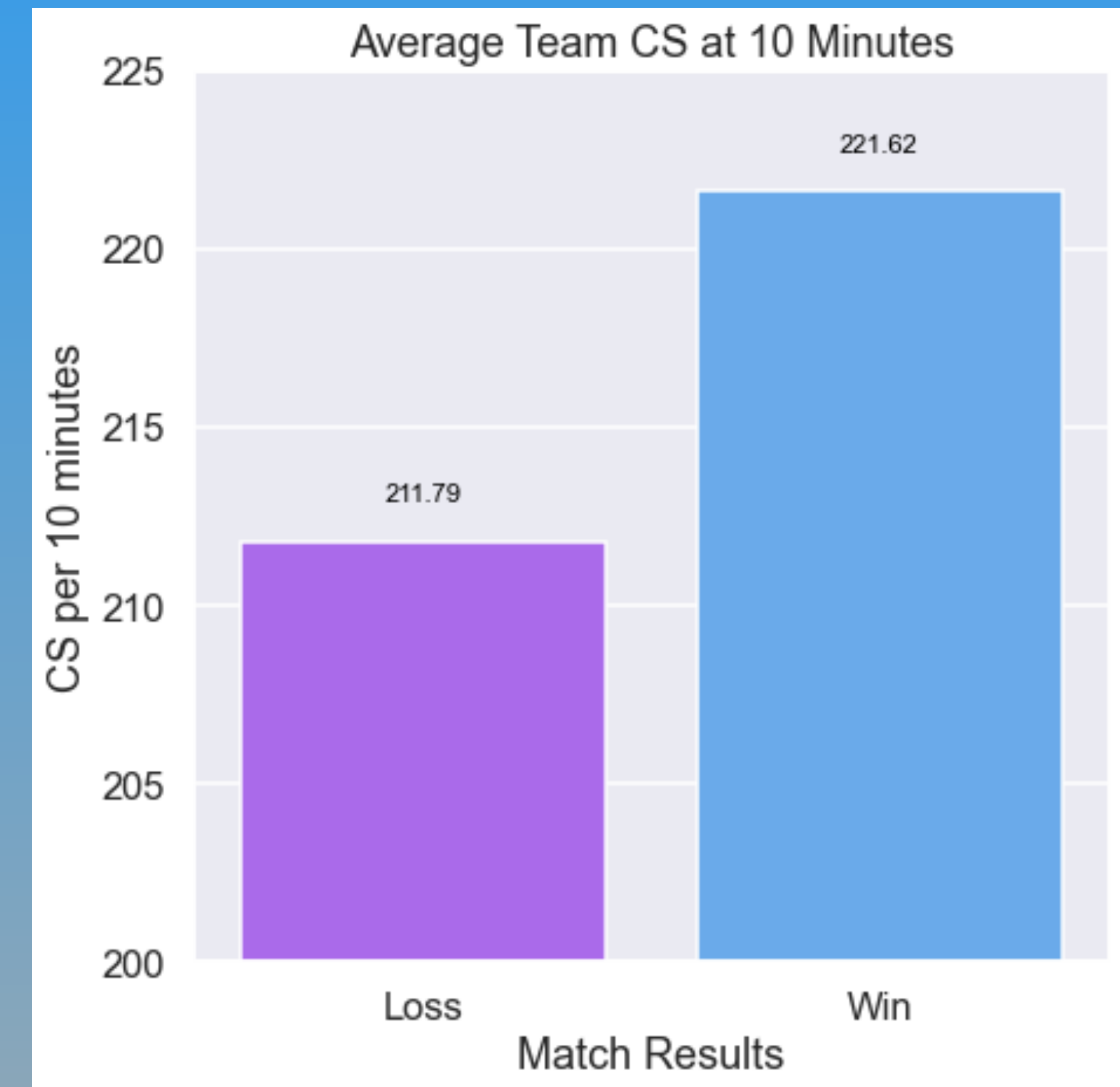
Jungler Role

1. Optimize Jungle clearing path to maximize gank potential and secure champion kills.
2. Maximize number of jungle creeps killed.



Lane Roles

1. Last hitting drills to maximize total minions killed in first 10 minutes of match.
 - At least 74 Minions per Laner
2. Bottom lane needs to practice maintaining map control and being ready to secure dragon when it spawns.



Summary

- Jungler needs to have great map awareness to capitalize on early game kills, since this has the highest impact on the outcome
- All lanes should run drills to maximize number of minions killed
- Support should practice maintaining map control in bottom lane to secure Dragon

Further Analysis

- Whether we can find additional features outside of the scope of the selected dataset to improve the predictive capability of our models.
- Analyzing data collected at the end of each match to identify what elements of the game led to a quicker vs. slower victory so that we can adjust the team strategy mid-game to increase the odds of winning.

*Thank
you!*



- You can find an in-depth analysis and all resources on my GitHub:

<https://github.com/ds-papes/>