League of Legends Classification Analysis

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Project Summary

- Esports - League of Legends for Cloud9
- Player Coach/Analyst
- Extract valuable information from high level player data
- Which objectives should our team be taking across the map?
- Priorities? "Avoids"?

What we already know

What we already know

Data Info & Features

- Gold
- Kills/Deaths/Assists (KDA ratio)
- Experience
- Wards Placed
- Wards Destroyed
- First Blood
- Towers
- Dragons
- Rift Herald
- Minions
- Monsters

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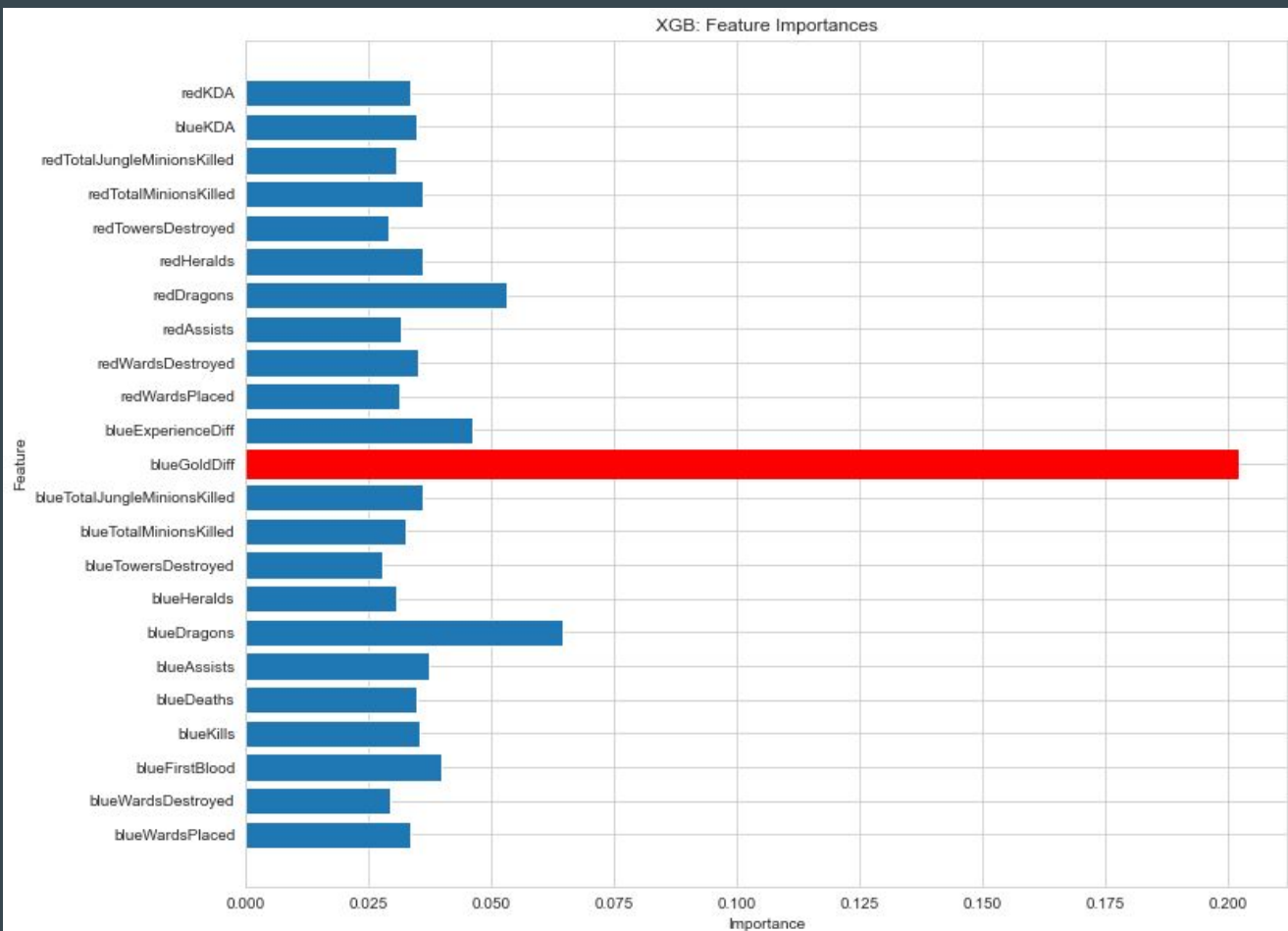
*Taken from ~10,000 games

Classification Models

- What does "Classification Model" mean?
- Predict the outcome based on in-game metrics at exactly 10 minutes
- Data taken from 10,000 games between the top 1% of players
- Feature Importances

Model - XGBoost Classifier

XGB: Feature Importances

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XGB: Feature Importances

Top Features:

1. Dragons
2. Experience

Bottom Features:

1. Towers
2. Wards Placed
3. Heralds

70.7% accuracy
(F1-score)

Conclusions and Results

GOLD = WIN

What objectives should we prioritize during the first 10 minutes of a game?
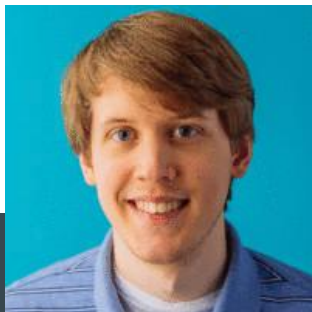
- Experience and Dragons

What should we ignore/let the enemy team take instead?

- Rift Heralds and Towers

Future Work

- Datasets beyond 10 minute mark (15+, 20+min?)
- Team compositions are considered (Playing for "late game"/falling off)
- Types of dragons (Air, Earth, Fire, Ocean)
- 150+ characters(Champions)
- Each can purchase different sets of items
- How good is this item on a certain champion?
- What's the expected win % for just picking a single specific champion?
- How good is this champion with other certain champions on the same team?

Thank You!

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