



# STARCRAFT PLAYER RANK PREDICTION MODEL

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# MODEL OVERVIEW

## FUTURE IMPROVEMENTS

Test additional models (DBSCAN, Bisecting Kmeans, NN etc)  
Gather additional data

## RESULTS

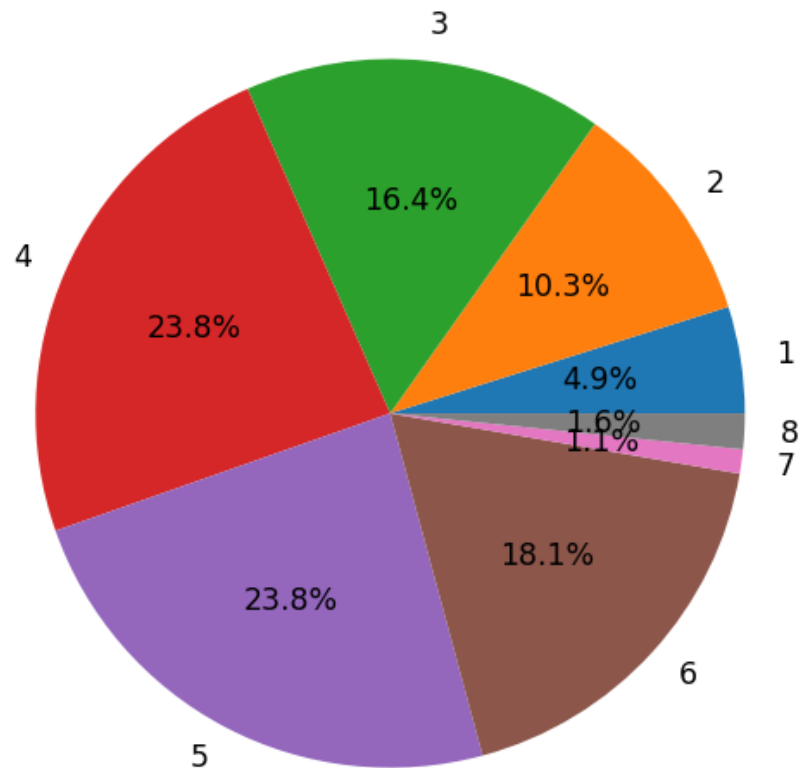
Highest Accurate Model (BIRCH Clustering) can predict exact player rank with an accuracy of 37%.  
This model can predict the player ranking within  $\pm 1$  ranking with an accuracy of 80%.

## MODELS CREATED

Important data attributes are selected & extracted  
3 models developed (KMeans Clustering, BIRCH Clustering, Decision Tree Classification)

## DATA ANALYZED

Data from “starcraft\_player\_data.csv” is uploaded & formatted  
Data is split into training data (To train model) & testing data (used to test the trained model)



## CURRENT DATA DISTRIBUTION

- |                |                        |           |
|----------------|------------------------|-----------|
| 1. Bronze      | 2. Silver              | 3. Gold   |
| 4. Platinum    | 5. Diamond             | 6. Master |
| 7. GrandMaster | 8. Professional League |           |

## ADDITIONAL DATA RECOMMENDATION

### COLLECT MORE DATA FROM UNDER-REPRESENTED RANKS

If possible, collect more data from Bronze, GrandMaster, & Professional League players.

### COLLECT MORE USER DATA

Current data has less than 4000 users. More data may reveal more patterns that may help improve the accuracy of the model

### COLLECT SAME USER DATA OVER TIME

It may be useful to collect/track the same user data over a specific time period. This may be useful in seeing any variety or range in user metrics.

A series of thin, light-brown lines forming an abstract geometric pattern in the top-left corner of the slide. The lines intersect to create various triangular and polygonal shapes.

# THANK YOU

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PS: This was a super fun project. Even if I don't get the internship, If you are able to send me anymore "assessment projects" for me to practice & learn on my own time. I would greatly appreciate it. Thank you!