

# Recommender Engine

**Board Games Expansion**

**Designer, Artist, Publisher and Author:  
Marcos V Panyagua Fernandes**

# Data Source:



**BGG**

**Almost 16 million entries:**

Data from [www.boardgamegeek.com](http://www.boardgamegeek.com)

- Information on 19 thousand different games
- Reviews of 89 thousand different users

# What is a rec sys?



amazon

The New York Times



Google Play



App Store



# Stakeholder:

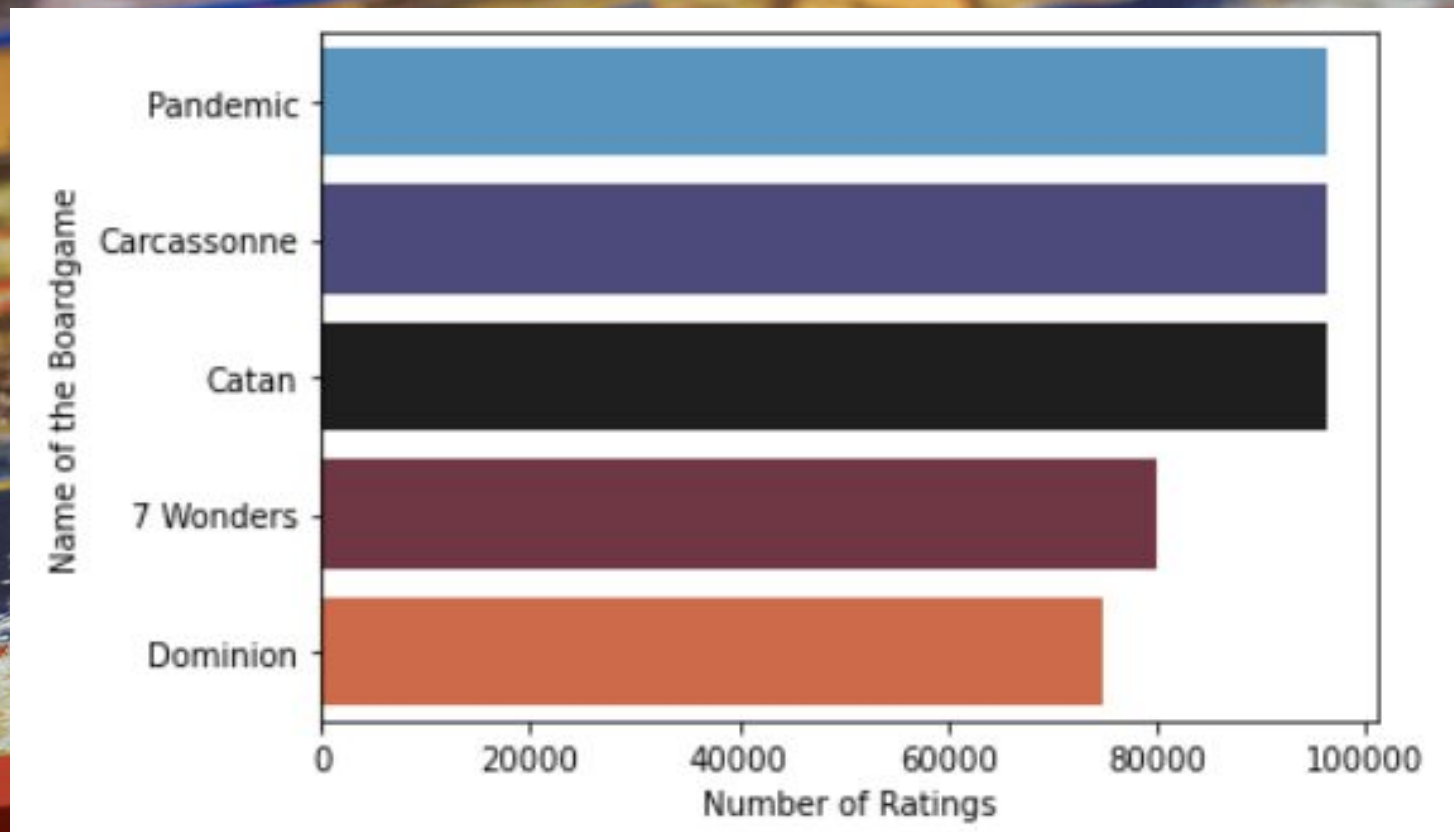


**Small Retailers**



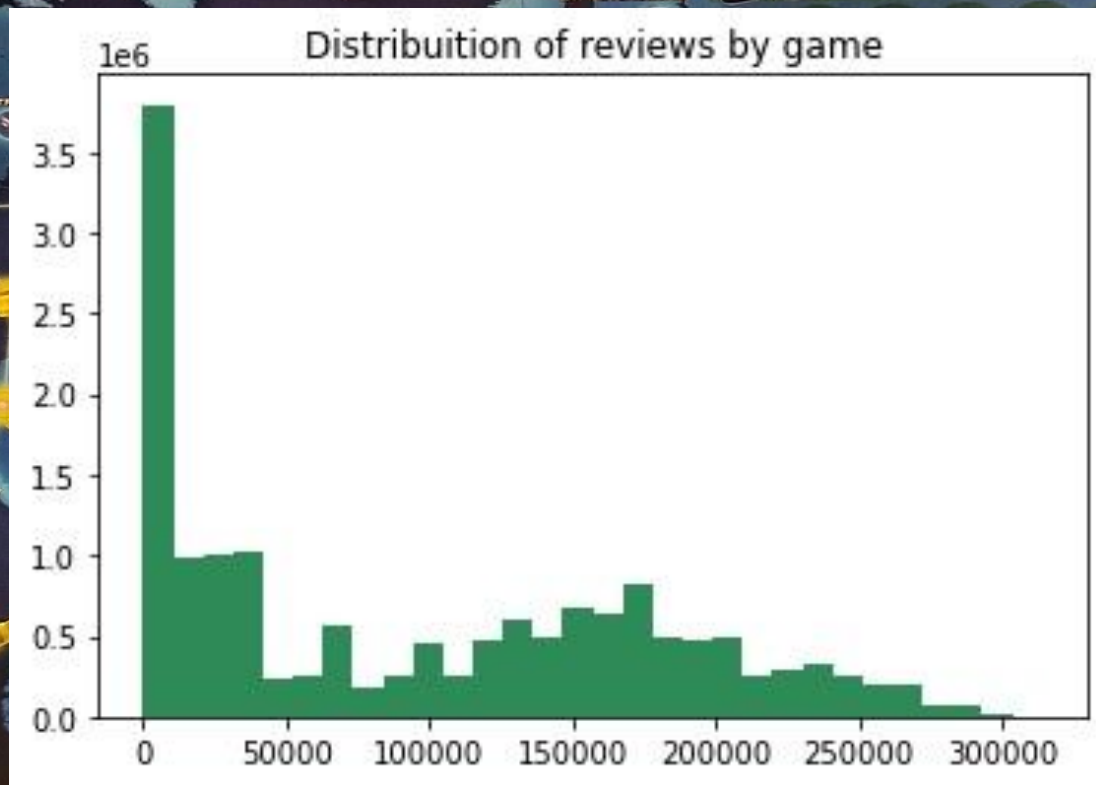
- How can they benefit from a recommendation system?

# Analysis of the Data:





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# Modeling with Singular Value Decomposition (SVD) :

- Improvement on the model of about 20% RMSE
- Hyperparameter tuning - GridSearch
- More understandable than memory-based

RMSE: 1.5582  
1.5581676173341248

RMSE: 1.3117  
1.3116574399175387



## Recommendation working:

```
recommendation_nickname('jollyfulpanda')
```

These are your recommendations of games you might like:

```
['Raptor',  
 'Santorini',  
 'No Thanks!',  
 'One Night Ultimate Werewolf',  
 "Ca$h 'n Guns (Second Edition)"]
```

```
get_recommendations('jollyfulpanda')
```

These are your recommendations of games based on the designer(s) you seem to like:

```
['504',  
 'Fast Forward: FORTUNE',  
 'Fast Sloths',  
 'Formidable Foes',  
 'Fast Forward: FEAR']
```



# Appendix:

Thank you!!!



[github.com/marcosvppfernandes](https://github.com/marcosvppfernandes)

Kaggle Repository: <https://bit.ly/3dpM2nX>

GitHub Repository: <https://bit.ly/3ahwHnG>



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