WALAR MORGHULIS

GAME OF THRONES

DEATH PREDICTOR



WALAR MORGHULIS

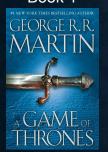
GAME OF THRONES

DEATH PREDICTOR

BY MONICA RAMIREZ

CONTEXT

Book 1



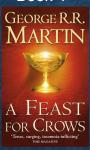
Book 2



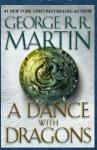
Book 3



Book 4



Book 5



Training / Test



Season 1



Season 2



Season 3



Season 4



Season 5



Season 6

Predict



Season 7

GAME OF DATA

Character Death

Name House Death_Year Death Book

Character_book

Name IsAlive -

Tittle Gender

House (Top 10) —
Culture

Book_1 Book_2

Book_4 Book_5

IsAliveMother -

IsAliveFather -

IsAliveSpouse -

IsNoble IsPopular Character Show

Character_Name Actor

Season_1

Time_S1 — Season_2 Time_S2 —

Season_3 Time_S3 -Season 4

Time_S4 — Season_5 Time_S5 —

Time_S5 -Season_6 Time_S6 -

NumberEpisodes — House (Top 10) —
Age

Avg_Rating -

Avg_Viewers —

Episode Number

Season Title

Rating Viewers

Writers

Director

Character_Episode

Character_Name Season

Episode Died

DATA SETS

Books

Tv Show Characters

Tv Show info

ATRIBUTES

SQL Generated ---

Categorical

Target

Fuzzy Wuzzy ——

JOIN

SQL ——

ASSUMPTIONS



Characters don't come back to life (Target value: 'Alive')

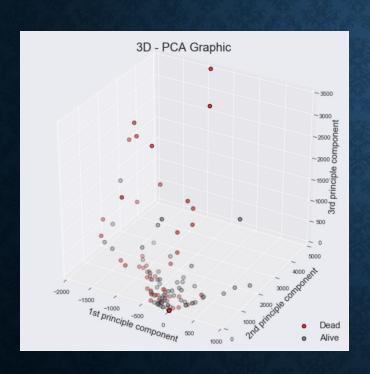


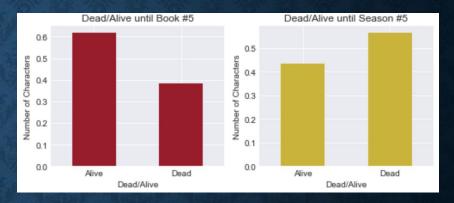
Dataset only includes human characters (NOT dragons, direwolves, White Walkers or Children of the Forest)

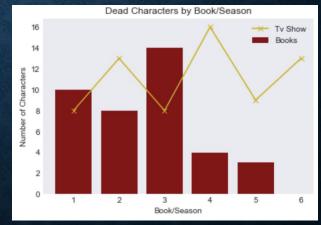


Characters are only classified in the top 10 houses with more members on it (Otherwise house='Other')

YOU KNOW NOTHING







IMODEL AND I KNOW THINGS

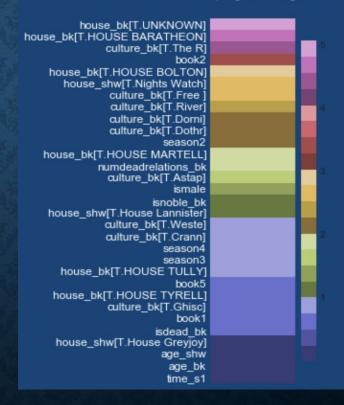
BEST MODEL SHOW: LOGISTIC REGRESSION (BALANCED)

C Parameter: 100
Test Accuracy: 80%
Precision: 70%
Recall: 75%
F1-score: 74%
Threshold: ~60%

Interesting:

- Wildling = 0
- Targaryen < 0
- Stark < 0
- Popularity Book < 0

Feature Coeficients (Logistic Regression - Balanced)



IMODEL AND I KNOW THINGS

BEST MODEL:

RANDOM FOREST

(GRID SEARCH)

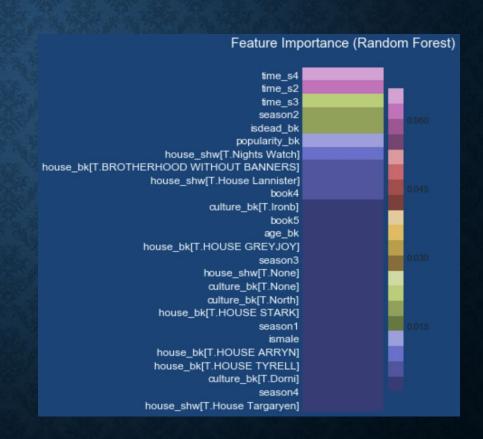
Depth: 5

Test Accuracy: 98% Precision: 71%

Recall: 75%

F1-score: 73%

Threshold: ~ 30%



VALAR MORGHULIS

LINK TO THE FLASK APP!

CREDITS

- Kaggle Competition (https://www.kaggle.com/mylesoneill/game-of-thrones)
- Visual Analysis raw data (https://trumpexcel.com/game-of-thrones-dashboard/)
- Tv Show GitHub project (https://github.com/mneedham/neo4j-got/blob/master/data)
- Game of Thrones Tv show Wiki (http://gameofthrones.wikia.com/wiki/Game_of_Thrones_Wiki)
- Song of Ice and Fire Books Wiki (https://awoiaf.westeros.org/index.php/Main-Page)

THANK YOU



Blog: monitarb.github.io Projects GitHub Repo:

https://github.com/monitarb/first_projects/tree/master/P3_GOTDeathProbability