

HOW LONG WILL YOU PLAY THE GAME OF THRONES?

- A Game of Thrones character simulator

MOTIVATION & PROBLEM STATEMENT

- Motivation – to provide fans of the hit TV series Game of Thrones (GoT), based on the equally famous book series "A Song of Fire and Ice" by George RR Martin, a platform to interact with its fantasy world
- The application allows user to design their own character by picking some key attributes like House of Allegiance, gender, nobility etc. The underlying model then predicts how many chapters would their character have survived in GoT.

DATA

- Data related to character timelines and their different attributes were picked from Kaggle
 - <https://www.kaggle.com/mylesoneill/game-of-thrones>
- The datasets outlined the following for each character in the book,
 - The book and chapter in which they were introduced and subsequently killed
 - Character profile attributes – gender, nobility, house of allegiance etc.
- Target definition – total number of chapters survived, converted to three categories 0-100, 101-200, gt200 among a total of 367 chapters
- Characters pertaining to only the 6 major houses were retained, in view of user experience with application

MODEL

- Several approaches were tried to predict survival as a function of profile attributes – regression with continuous target, segmented modeling
- Final approach – multi class classification using Random Forest
- Success –
 - Designed to be an entertainment application
 - The show is known for being unpredictable, i.e., human accuracy in predicting character life span is often lower than 50%
 - The model achieves an accuracy of 48.6% in predicting chapters survived

INTERESTING INSIGHTS

- While seeing the show or reading the book, it feels like almost everyone is dying. The data disagrees – 35% of the characters live for more than 200 chapters among the total of 337 chapters
- Lannisters are the best at staying alive
- Targaryens have poorer survival numbers than the Night's Watch

THANK YOU

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<https://github.com/MSIA/2020-msia423-ganguly-got.git>