**I590: Data Visualization**

**Midterm Proposal**

**Game of Thrones – Network Analysis**

**Group Members**

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# **Abstract**

Game of Thrones(GoT) is arguably the most popular television series ever adopted from a fiction book. The book contains a rich fictional world and ensemble of characters giving an immersive experience to the reader. However, due to diverse characters, places and belief systems, the story creates a complex network interaction between these elements of the story. Although there were attempts to recreate the network analysis before, they haven’t included much other information other than just character names. In this analysis, we propose to crawl the data from<http://gameofthrones.wikia.com/wiki/Game_of_Thrones_Wiki> and create networks from character information boxes to understand character interactions.

# **Introduction**

Game of Thrones, even though is fiction is closely inspired from real world events. Hence, any analysis done on this dataset is directly generalizable to actual real-world problems. For people interested in GoT, this could be a fun project, however could represent a pilot project that could be used in real data. Also, Network analysis would reveal interesting patterns, we hope to develop this into a community detection or clustering algorithm later.

# **Background and Related Work**

This work is based on the paper published in Mathematical Association of America by Andrew Beveridge and Jie Shan, titled Network of Thrones. This paper discusses just using character interactions, character statistics to compute network graph statistics like in-degree, out-degree, centrality etc. We hope to extend it to places, belief systems, Houses, Allegiances from the series. We hope to crawl wiki site,<http://gameofthrones.wikia.com/wiki/Game_of_Thrones_Wiki> and extract information from the info boxes as shown to the right.

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# **Research Questions**

We hope to answer and visualize following questions:

* Who are the top 5 most popular characters in terms of connections?
* How are parameters like House Allegiances, Belief systems and Religion related?
* What kind of inferences can be drawn when the data is visualised graphically?

**Future Work**

Once the above mentioned goals are accomplished, we hope to extend the work to answering questions like:

* Which characters are likely to meet in the future?
* Can we detect the community of any character?
* What are the common themes of the characters? (Topic Modelling)

**References**

[1] <https://www.maa.org/sites/default/files/pdf/Mathhorizons/NetworkofThrones%20(1).pdf>

[2] <http://gameofthrones.wikia.com/wiki/Game_of_Thrones_Wiki>