

# Classifying Game of Thrones Subreddits



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WINTER  
IS  
COMING  
STARK

# Problem Statement

- Reddit wants to remove redundant subreddits to streamline advertiser choices
- r/gameofthrones, r/freefolk, and r/asoiaf moderators insist that they are different spaces despite their shared topic
- To test this claim, we will see if we can predict the subreddit of a post

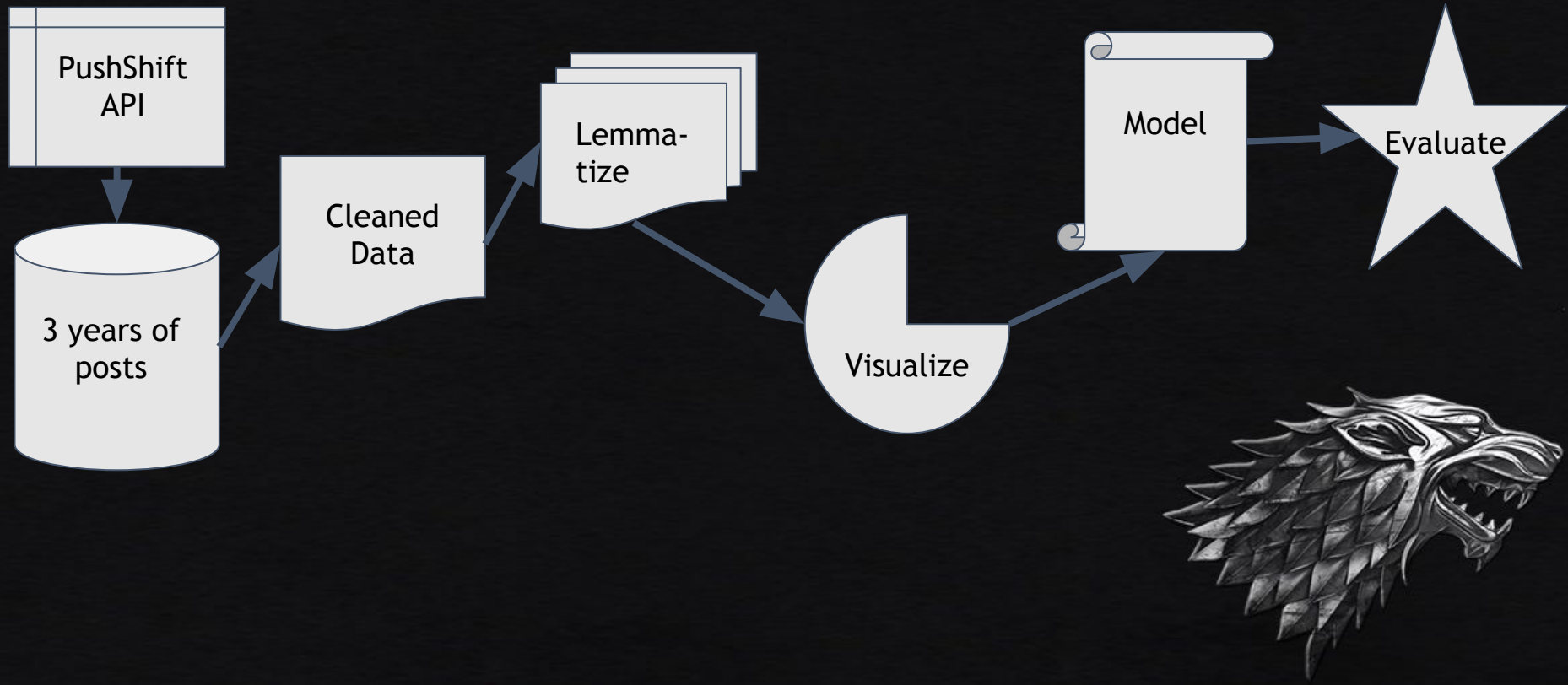


# Introducing our Subreddits

r/freefolk	r/gameofthrones	r/asoiaf
 <p>r/gameofthrones</p> <p>what do people from r/freefolk upvote, anyway?</p>	 <p>r/freefolk</p> <p>whatever we want.</p>	<p><b>[Spoilers All] Relax, the Upcoming Battle in TOW Will Be Vastly Different</b></p> <p>Submitted 5 years ago • (last edited 5 years ago) by <a href="#">Cryden89/ash m n</a> • 2062 comments source share save hide give award report crosspost</p> <p><b>Intro</b></p> <p>I don't have time for a long post this morning, but I hear your fears. On the surface is going to look a lot different. Why would I say that? Following last week's discussion by David Marten that "When Martin told us about it (Stannis burning Barren), I honestly was collectively lost our shit as it was likely I won't say confirmed yet) spoiled a major plotline from TOW.</p> <p>But guys, relax, even in The Winds of Winter will almost assuredly be a vastly different manner than the way they were done last night. The impostor on screen last night (Who I will henceforth be calling Stanley Gordon, despite the name) is a character from the past and the joke of a battle last night will not be played out in a similar fashion in TWOW. (Think of it as a joke.)</p> <p>And I know what, after all, it's a really good thing that the show killed off Stannis' Bolton last night. (I'll explain.)</p> <p>Below contains info from TWOW, Cevard's actor</p> <p><b>Let's Recap</b></p> <p>So, let's bullet-point the major actions of Stannis &amp; Roose leading up to the Battle of Ice:</p> <p><b>Roose Bolton</b></p> <ul style="list-style-type: none"> <li>Having secured wardenship of the North, Roose marches back to the North with some 4000 Bolton retainers and 2000 Frey reinforcements.</li> <li>They pass into the North, set up shop at Barrowton and then decide to march into Winterfell to conduct the marriage of Ramsey and Arya Stark there. But more importantly for the military side, they know that Stannis will have to attack and defeat them at Winterfell if he's to gain any legitimacy from the Northern Lords.</li> <li>Ramsey marries Arya, she starts going downhill. The Northern Lords (except for the Freys, who are not there yet) are all at each other's throats.</li> <li>Stannis' army, Roose's army are running low. Stannis is coming. Murders are happening. Freys and other northerners are at each other's throats.</li> <li>War horns start blowing outside of Winterfell.</li> <li>Stannis' army is at Winterfell, and he's seen notices of the marriage, and realizing that he's going to run out of food if he doesn't get rid of some of the mouths at Winterfell, Roose Bolton deploys his 2 most contemptuous armies: The Freys and the Handbells to smash Stannis' army.</li> <li>Arya's Frey is killed by a trap that Mors Ulfster and his cousin boys set outside of the gates of Winterfell. Now commander of the Freys is Hoster Frey. They ride for Stannis' camp.</li> </ul> <p><b>Stannis Baratheon</b></p> <ul style="list-style-type: none"> <li>Having saved the Night's Watch and subdued the Wildings, Stannis decides to plan the North military before the Others can descend on the Wall.</li> <li>He's been a campaigner since Jon Snow (which saves him from a small-certain defeat) and marches his small army west, picks up the support of the Northern Mountain Clansmen (It's a real shame that Jon Snow will not make the show -- I get why).</li> <li>He attacks Deepwood Motte, seizes the castle from Asha Greyjoy. Mormont and Greyjoy join with Stannis. They start the long march to Winterfell.</li> <li>March goes well at first but movement is slowed when army enters the Mottedwood, progress is slow further by the onset of snow. The march takes a massive hit when the snow turns to blizzards. People die of exposure. The army goes hungry. In the last day of the march, they barely make a half mile before they stop at a Crofters Village.</li> <li>At the village, the cut horses on the lakes to fish. Situation is growing dire. Cripps is discovered and purged.</li> <li>Thorn Greyjoy arrives at camp, tells Stannis that Hoster Frey is coming for him.</li> <li>Stannis states that he will use the ground to his advantage.</li> <li>Thorn says that if you want to talk about Stannis, you have to talk about a village that can't be defended. (Paraphrase). Stannis just says "Yes".</li> </ul> <p>And that's pretty much how TWOW leaves off. Jon receives a letter from Ramsey saying "Stannis is a bastard. You supported Stannis, and he's dead. I have his very sword in my hand."</p>

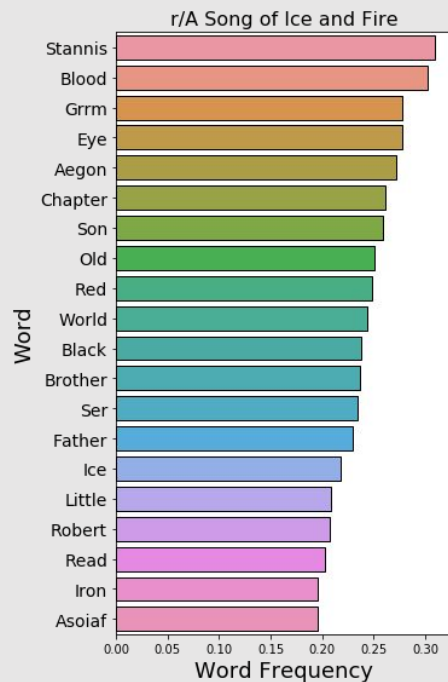
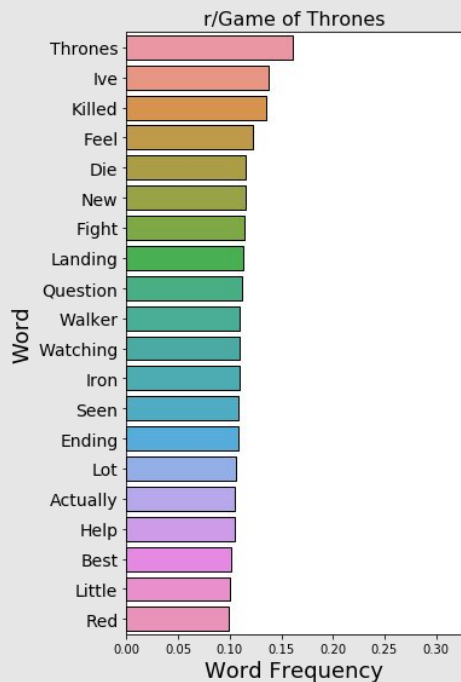
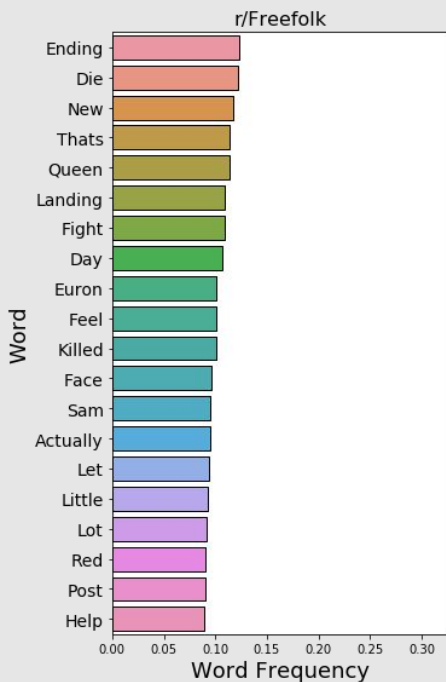


# Workflow



# Are there Differences?

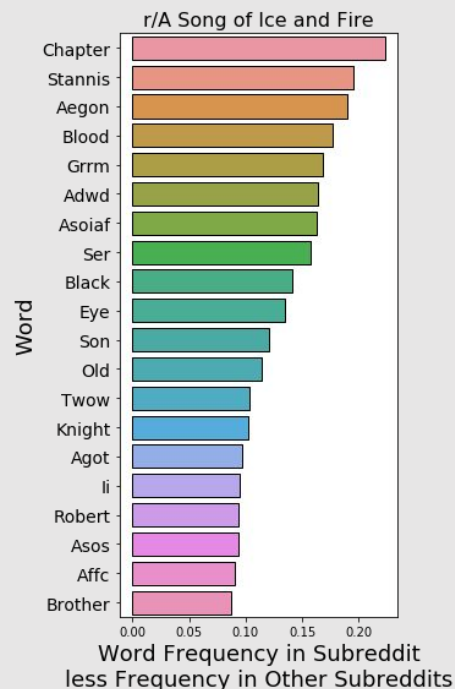
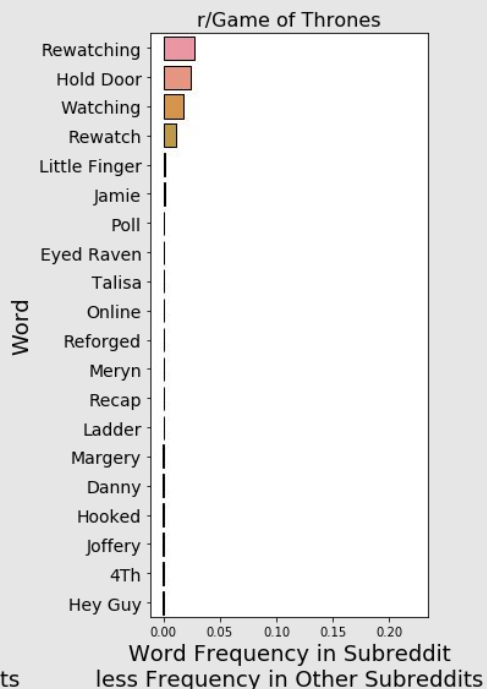
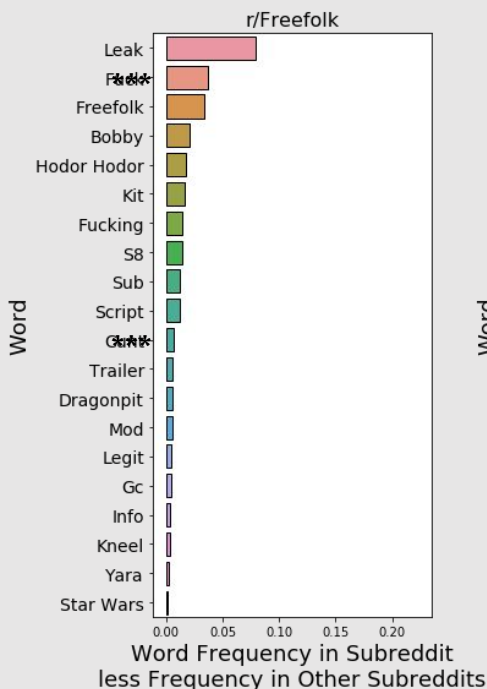
Top 20 Most Common Words by Subreddit



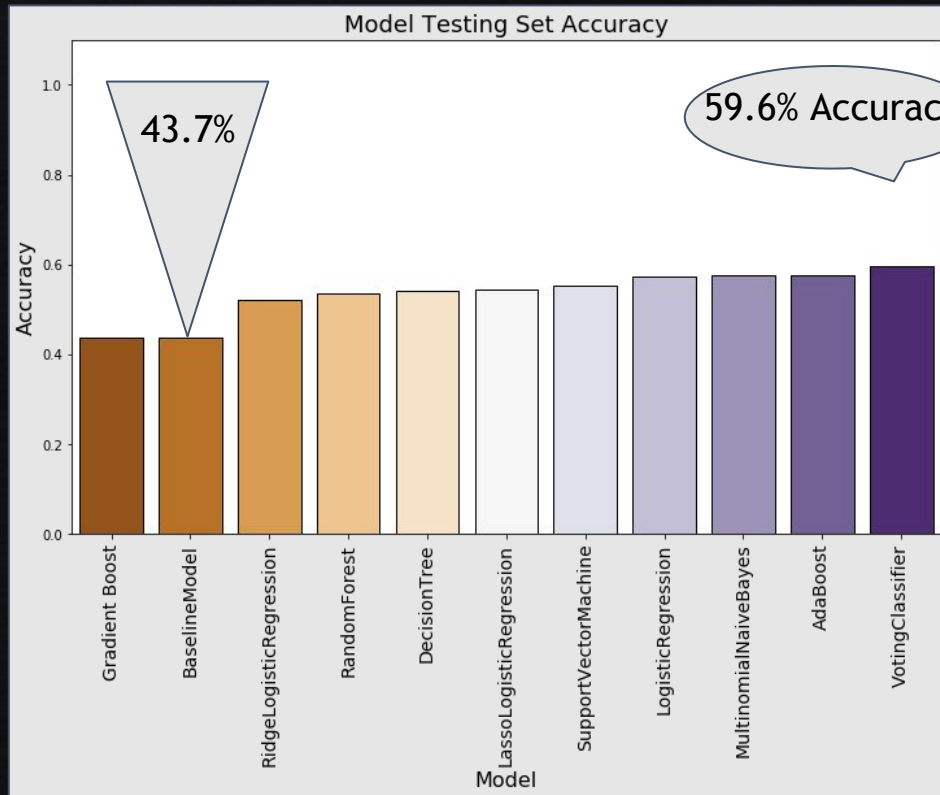


# Subreddit-Specific Words

Top 20 Words Most Specific to Each Subreddit



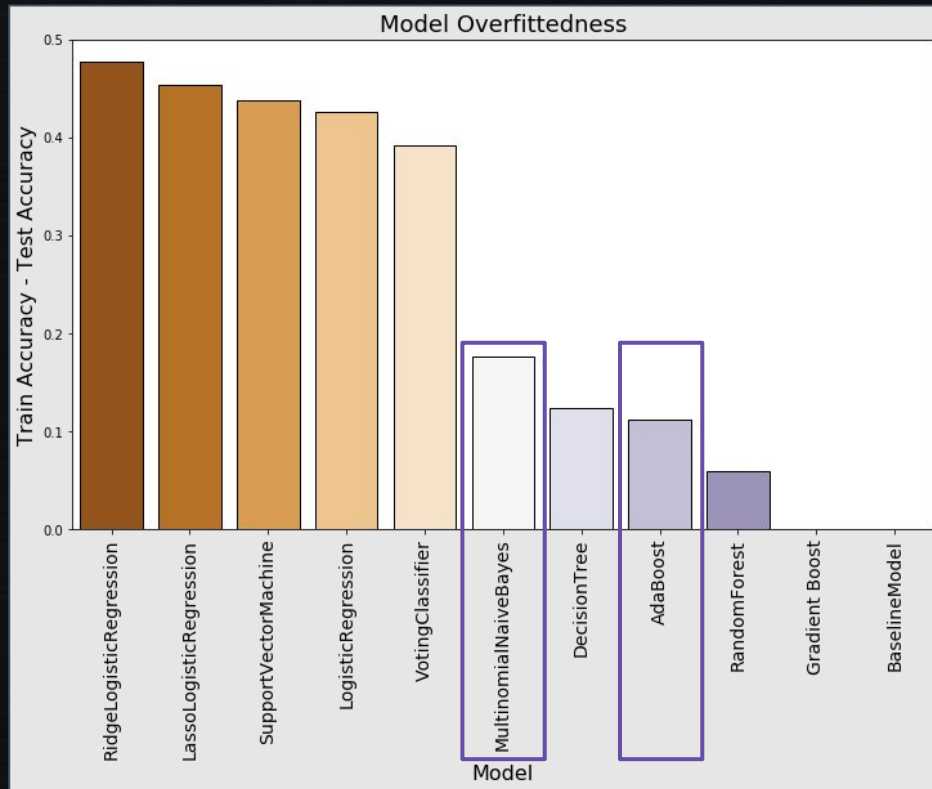
# Modeling Results 1



- Ensemble is our overall best model, with AdaBoost and Naive Bayes not far behind.
- Ensemble beat our standalones

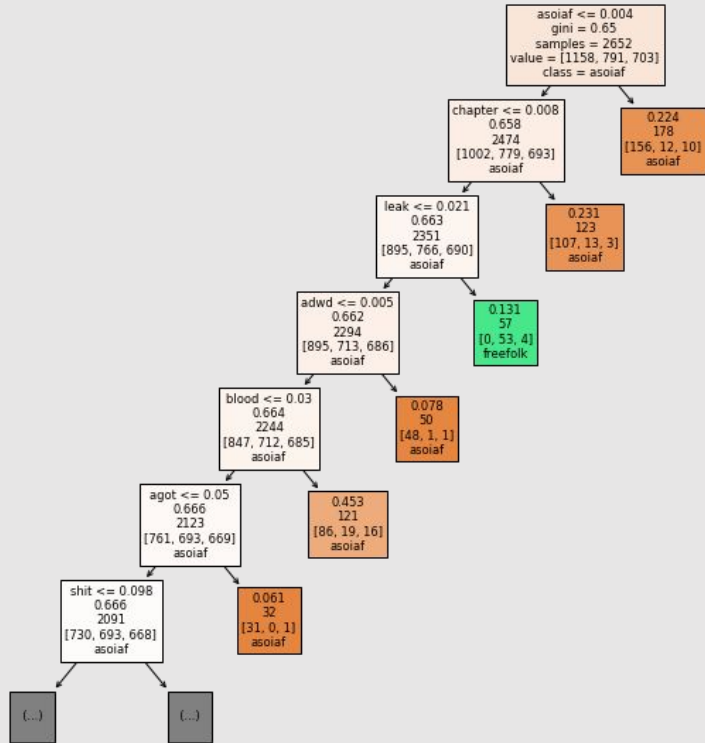


# Modeling Results 2





# Important Features



# Conclusions and Recommendations

- We successfully beat the baseline of 44% accuracy
- r/gameofthrones, r/freefolk, and r/asoiaf have substantial differences and can continue to coexist
- Further work to be done on hyperparameter tuning.

