Vincent Nguyen

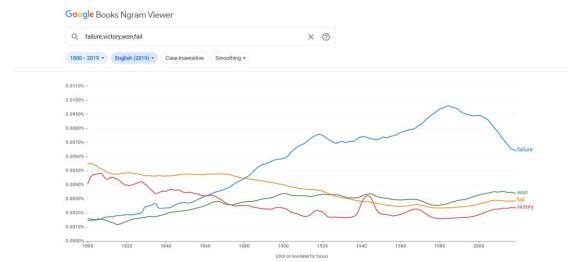
Dr. Karen Mazidi

CS 4395.001

06 March 2023

N-Grams

- 1. What are n-grams and how are they used to build a language model?
 - a. N-grams are tokens over n amount of words in a word file. To build a language model, we count the words from the n-grams that are repeated over and over in a file.
- 2. List a few applications where n-grams could be used
 - a. One application n-grams can be used is a spell check. We can also use n-grams as a word counter in a word editor document.
- 3. A description of how probabilities are calculated for unigrams and bigrams
- 4. The importance of the source text in building a language model
- 5. The importance of smoothing, and describe a simple approach to smoothing
- 6. Describe how language models can be used for text generation, and the limitations of this approach
- 7. Describe how language models can be evaluated
- 8. Give a quick introduction to Google's n-gram viewer and show an example
 - a. Google's n-gram viewer shows a graph that shows the amount of times the words have been used over and over again in books. Below is an example of Google's ngram viewer. I searched up victory, fail, failure, and won on the google n-gram viewer.



b.