

START OF QUIZ

Student ID:

10237352,Shan,Zhengyi

Question 1

Topic: Lecture 6

Source: Lecture 6

In class, we talked about bookstores and streaming algorithms classifying books / movies. How can we tell that they don't use a topic modeling algorithm (or, if you think they do, what would be some clues)? (1)

Question 2

Topic: Lecture 8

Source: Lecture 8

What is the reasoning behind substituting TF-IDF with Okapi BM25? (1)

Question 3

Topic: Lecture 5

Source: Lecture 5

What impact do sparse matrices have on similarity metrics like cosine similarity? (1)

Question 4

Topic: Lecture 6

Source: Lecture 6

Why don't we just use k-means to cluster document-vectors (sparse or dense)? (1)

Question 5

Topic: Lecture 7

Source: Lecture 7

What is the benefit (in terms of efficiency) of placing the most discriminative search terms first in a boolean search? (1)

Question 6

Topic: Lecture 8

Source: Lecture 8

What are some assumptions that we make when we are interpolating between a document and a corpus? When should we trust the corpus more, and when should we trust the document more? (2)

Question 7

Topic: Lecture 5

Source: Lecture 5

We often weight our matrices using something like PMI or TF-IDF. Do you think it would make sense to do this after applying SVD? Why or why not? (2)

Question 8

Topic: Lecture 7

Source: Lecture 7

Explain why the cosine similarity between a (TF-IDF-weighted) document and query vector is roughly equivalent to adding up the TF-IDF scores of each word in the document that occurs in the query. (2)

Question 9

Topic: Long

Source: Lecture 8

In class, I mentioned that we might want to provide a weighted ranking of documents in an IR system (for example, we might have a list of relevant documents already sorted for relevancy, and we want our IR system to not only return those documents high in the returned document list, but in the same order). How might we modify the MAP metric to reward the ordering of the documents, as well? Explain (use an example, if you have to). (3)

END OF QUIZ