

Qualcomm Problem Statement – Additional Details

I/O and constraints:

Since, this is an open domain problem you have to find/create your own dataset and formulize your approach in a python script. We will test your approach using our test data.

You'll have to create a python script which will take the following inputs:

- 1) Abstract csv with N abstracts
- 2) Full text csv with M full text articles

And your python script should return/create another similarity_matrix.csv which will have N rows and M columns where each cell (I,j) represents a similarity score between the abstract I and article j.

Each similarity score should be between [0,1] 1 being most similar and 0 being least similar.

You are free to use any mathematical/machine learning library.

Avoid using external pre-trained word embedding models like Word2Vec or GloVe.

Submission:

You will have to submit 3 files to be considered a valid submission:

- 1) Your Python Script
- 2) Requirements.txt which contains all the external libraries list which are required to run your script
- 3) README.txt which contains details about how to run your script and a brief description about your approach.

[Optional] You can also submit any Deep Learning/Machine Learning model you trained if any. If you trained any models, please provide the details about their training in README.txt.

Evaluation:

We will run your python script on our two test datasets:

- 1) Closed domain dataset. First dataset will contain summaries and articles from a single domain (like 5G, Neural Networks, IoT, etc.)
- 2) Cross domain dataset. Second dataset will contain summaries and articles across multiple domains.

We will evaluate your similarity matrices for above two datasets against our test matrices.

There will be 3 factors considered while evaluating the final results (in decreasing order of priority) :

- 1) Accuracy of the similarity measure
- 2) Novelty of approach
- 3) Inference time