# Tfidf Experiment result

**Word Embedding:** Elmo, 1024d

**Sentence embedding method**: refer to paper *<<* *Unsupervised Sentence Representations as Word Information Series: Revisiting TF--IDF >> ，use tf-idf as word embeddings’ weight to construct sentence embeddings.*

**Classifier:** MLP, 2 hidden layers with 256 neurons in each layer, optimizer: adam

**Note:** I keep the reviews in train set only when review length<500. Trainset size is 26.5GB, needs text is 1.2GB.

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| --- | --- |
| Type | Results |
| CPU | ndcg:  0.22504892367906065  0.34637964774951074  0.4140196464809927  0.4559734134274643  0.4799686635909489  0.49910296187901254  0.5074169882910806  0.5155516636332563  0.5255511971480703  0.5337939074669762  precision:  0.22504892367906065  0.18101761252446183  0.16634050880626222  0.15949119373776907  0.14520547945205478  0.13274624918460534  0.12356723511322337  0.11692759295499021  0.11241574255272885  0.10743639921722113  recall:  0.05626223091976516  0.09050880626223091  0.12475538160469667  0.15949119373776907  0.1815068493150685  0.19911937377690803  0.2162426614481409  0.23385518590998042  0.25293542074363995  0.26859099804305286 |
| RAM | param: ram  ndcg:  0.5921787709497207  0.7783985102420856  0.8488934547752099  0.8721709221867555  0.88740901269587  precision:  0.5921787709497207  0.3891992551210428  0.29671011793916824  0.23417132216014896  0.19441340782122904  recall:  0.5921787709497207  0.7783985102420856  0.8901303538175046  0.9366852886405959  0.9720670391061452 |
| GPU | param: gpu  ndcg:  0.553072625698324  0.7858472998137802  0.837543592471405  0.8654765533652596  0.8807146438743744  precision:  0.553072625698324  0.3929236499068901  0.2892613283674736  0.2309124767225326  0.19180633147113593  recall:  0.553072625698324  0.7858472998137802  0.8677839851024208  0.9236499068901304  0.9590316573556797 |
| HD | param: hd  ndcg:  0.4264432029795158  0.6573556797020484  0.740774697399579  0.7798808426509757  0.8079510093782923  precision:  0.4264432029795158  0.3286778398510242  0.2631905648665425  0.2169459962756052  0.18659217877094972  recall:  0.4264432029795158  0.6573556797020484  0.7895716945996276  0.8677839851024208  0.9329608938547486 |
| Screen | param: screen  ndcg:  0.633147113594041  0.8547486033519553  0.9017452330407051  0.9231605030593271  0.931982555459341  precision:  0.633147113594041  0.4273743016759777  0.3097454996896338  0.2430167597765363  0.1985102420856611  recall:  0.633147113594041  0.8547486033519553  0.9292364990689013  0.9720670391061452  0.9925512104283054 |