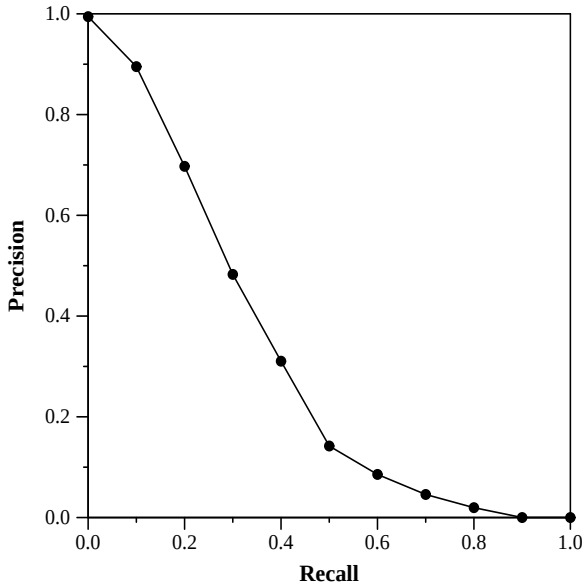
## Deep Learning Track results — (PASH) PingAn Smart Health

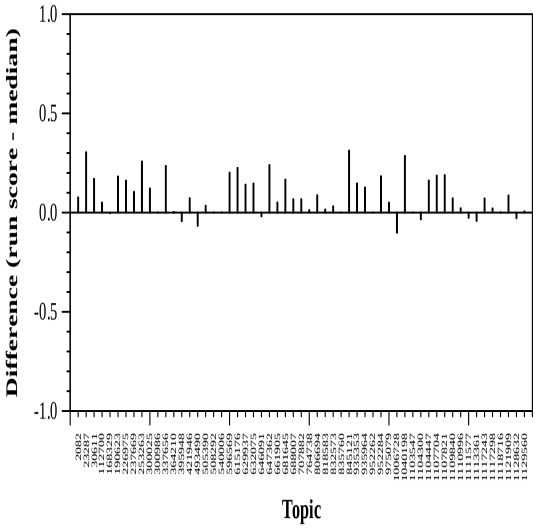
| Run Description | |
|---|---|
| Run ID: | pash_doc_f1 |
| Task: | Document Ranking |
| Subtask: | Full ranking from the collection |
| Topic type: | Automatic |
| Single-stage retrieval? | No |
| Dense retrieval? | Yes |
| Used deep nn model? | Pre-trained model |
| Type of training: | This year's MS MARCO training data |
| Pre-processing/indexing cost: | The open source pre-trained docT5query model is used to predict queries for passages or segment passages(for documents). The process of query generation takes 8 days on 64 Tesla V100 GPUs(16GB). Indexing the collection takes 1.5 hours on 32 threads. |
| Query processing cost: | In the pointwise stage, inference on all queries takes approximately 5 hours on 8 Tesla V100 GPUs(16GB). In the pairwise stage, inference on all queries takes approximately 5 hours on 16 Tesla V100 GPUs(16GB). |

| Overall measures | |
|---|---|
| Number of topics | 57 |
| Total number retrieved | 5700 |
| Total relevant | 8203 |
| Total relevant retrieved | 2356 |
| MAP | 0.3111 |
| Mean NDCG@10 | 0.7437 |
| Mean Reciprocal Rank | 0.9795 |

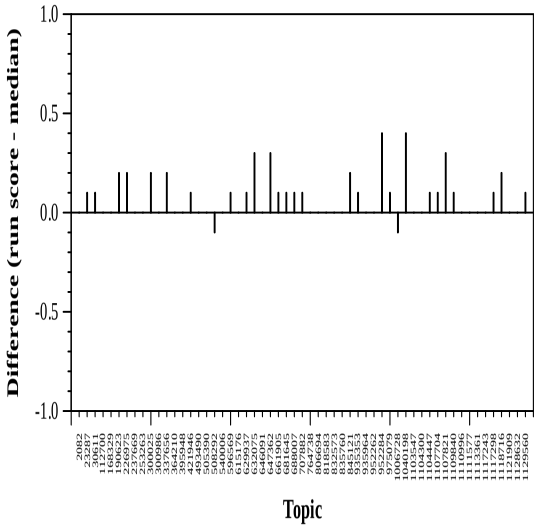
| Document Level Averages | |
|---|---|
| | Precision |
| At 5 docs | 0.9439 |
| At 10 docs | 0.9053 |
| At 15 docs | 0.8550 |
| At 20 docs | 0.8070 |
| At 30 docs | 0.7368 |

| R-Precision | |
|---|---|
| Exact | 0.3484 |

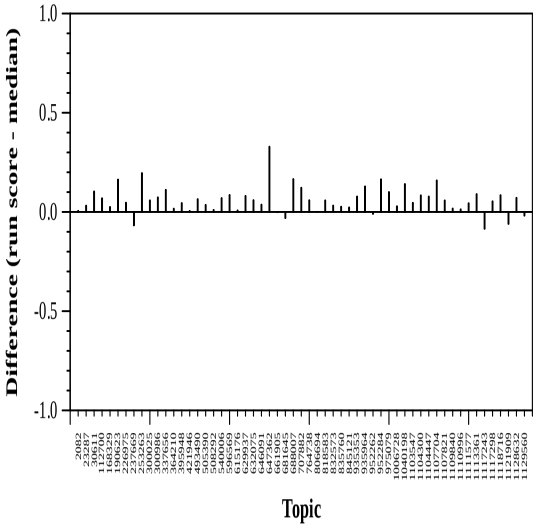




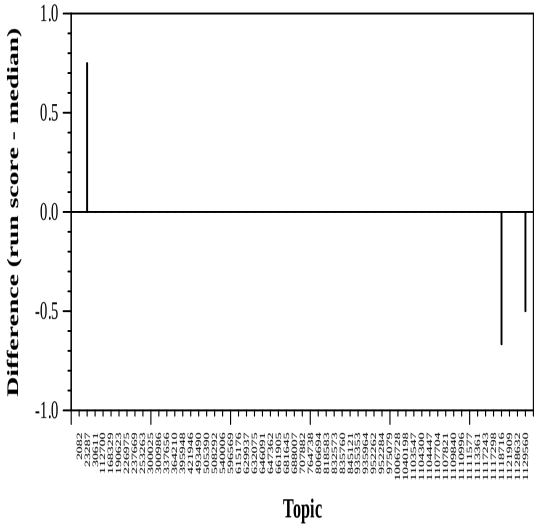

Per-topic difference from median for NDCG@10 for Document Ranking runs




Per-topic difference from median for Prec@10 for Document Ranking runs




Per-topic difference from median for Average Precision for Document Ranking runs




Per-topic difference from median for Reciprocal Rank for Document Ranking runs