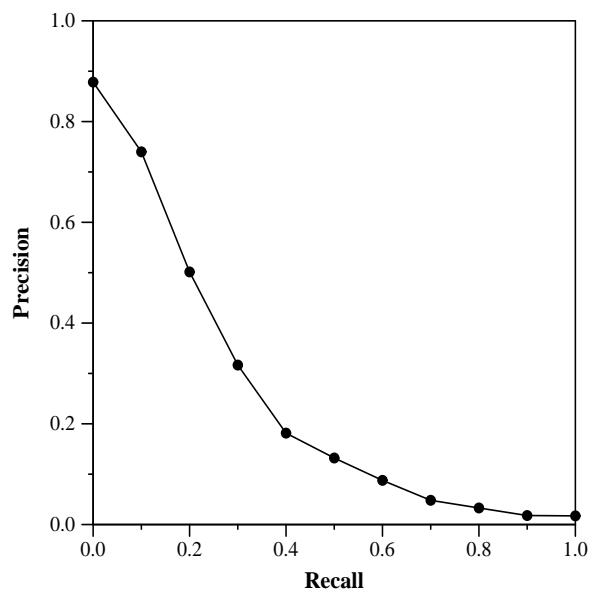
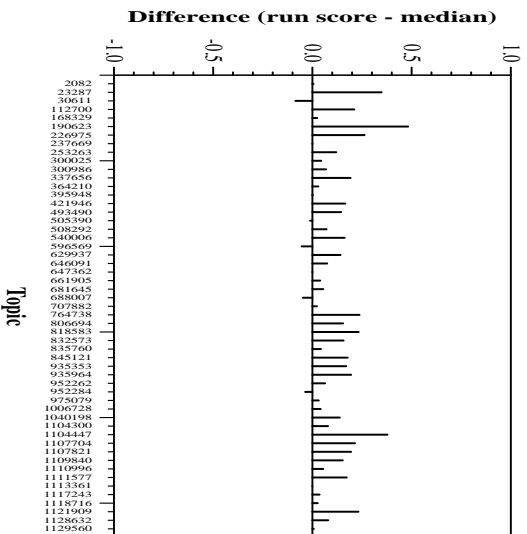


Deep Learning Track results — (PASH) PingAn Smart Health

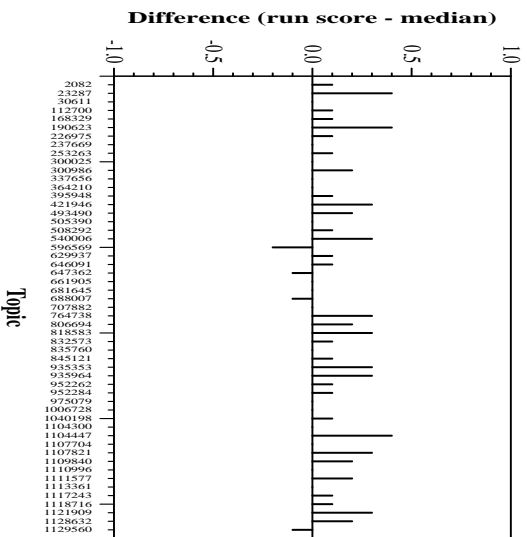
Run Description	
Run ID:	pash_r3
Task:	Passage Ranking
Subtask:	Reranking the official top 100
Topic type:	Automatic
Single-stage retrieval?	No
Dense retrieval?	Yes
Used deep nn model?	Pre-trained model
Type of training:	This year's MS MARCO training data
Pre-processing/indexing cost:	The open source 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		Document Level Averages	
Number of topics	53		Precision
Total number retrieved	5300	At 5 docs	0.7057
Total relevant	3427	At 10 docs	0.6170
Total relevant retrieved	879	At 15 docs	0.5572
MAP	0.2385	At 20 docs	0.5066
Mean NDCG@10	0.7072	At 30 docs	0.4138
Mean Reciprocal Rank	0.8675		R-Precision
		Exact	0.2847

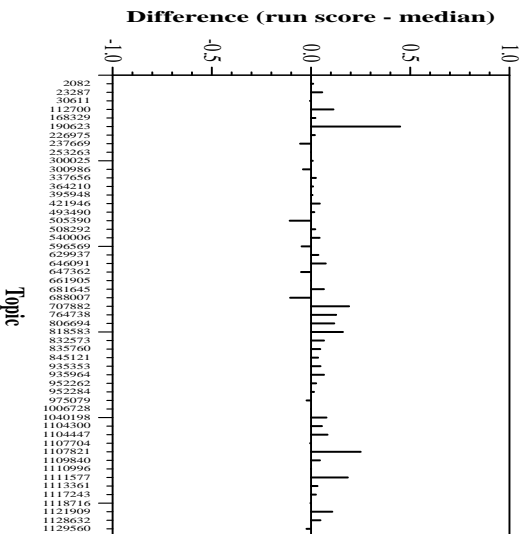




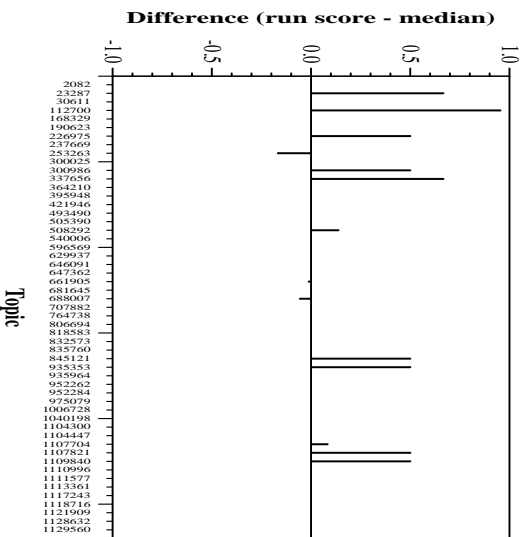
Per-topic difference from median for NDCG@10 for Passage Ranking runs



Per-topic difference from median for Precision for Passage Ranking runs



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



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