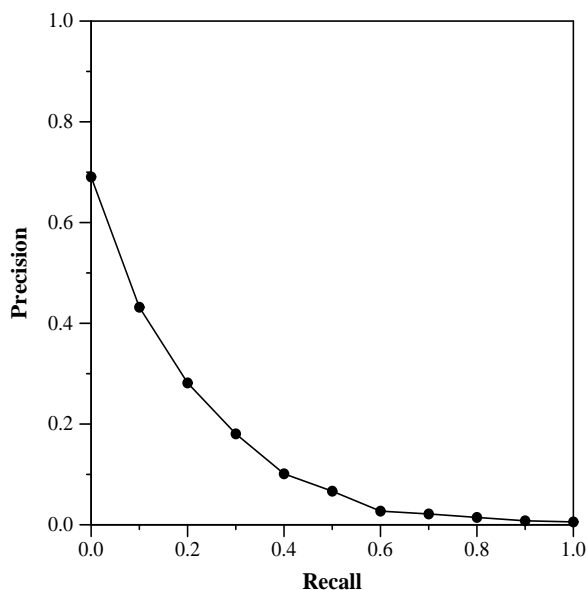
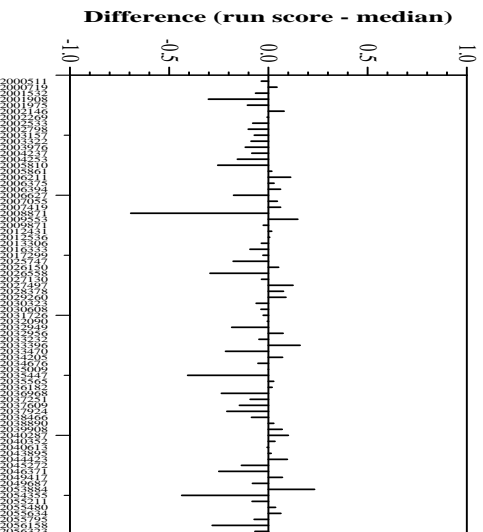


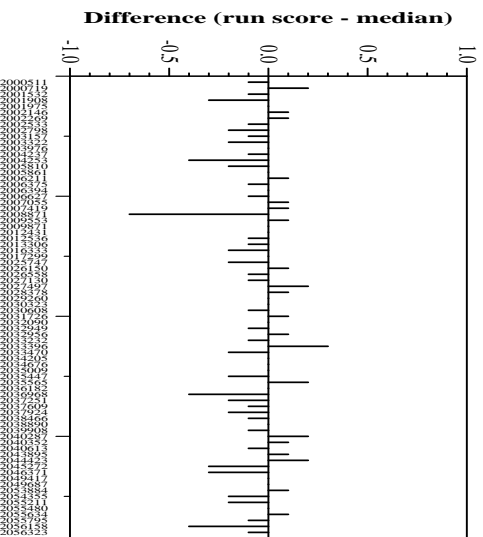
Run Description	
Run ID:	cip_f3
Task:	Passage Ranking
Subtask:	Full ranking from the collection
Topic type:	Automatic
Single-stage retrieval?	Yes
Dense retrieval?	Yes
Baseline run?	No
Used deep nn model?	Pre-trained model
Type of training:	This year's MS MARCO training data; Previous year's MS MARCO training data
Training cost:	Cost 753 minutes for training on MS MARCO v2 on a single NVIDIA TITAN RTX (24G) GPU. The total GPU minutes is 753 minutes.
Pre-processing/indexing cost:	Cost 558 minutes for inference on six NVIDIA TITAN RTX (24G) GPUs, 66 minutes for dense index, 57 minutes for docT5query index. The total GPU minutes is 3348 minutes.
Query processing cost:	Cost 84 minutes for dense retrieval, 189 minutes for docT5query ensemble. No GPU was used.

Overall measures		Document Level Averages	
Number of topics	76		Precision
Total number retrieved	6913	At 5 docs	0.4342
Total relevant	4613	At 10 docs	0.3763
Total relevant retrieved	1073	At 15 docs	0.3342
MAP	0.1406	At 20 docs	0.3086
Mean NDCG@10	0.4781	At 30 docs	0.2689
Mean Reciprocal Rank	0.6476	R-Precision	
		Exact	0.2111

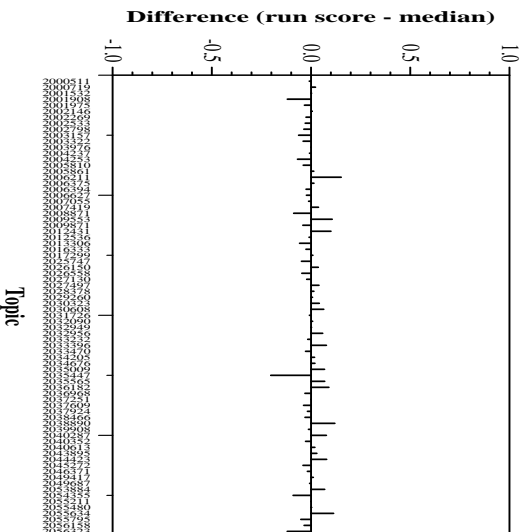




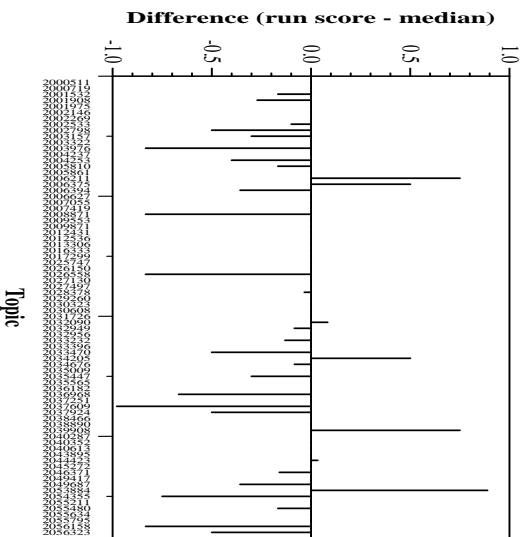
Per-topic difference from median for NDCG@10 for Passage Ranking runs



Per-topic difference from median for Prec@10 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