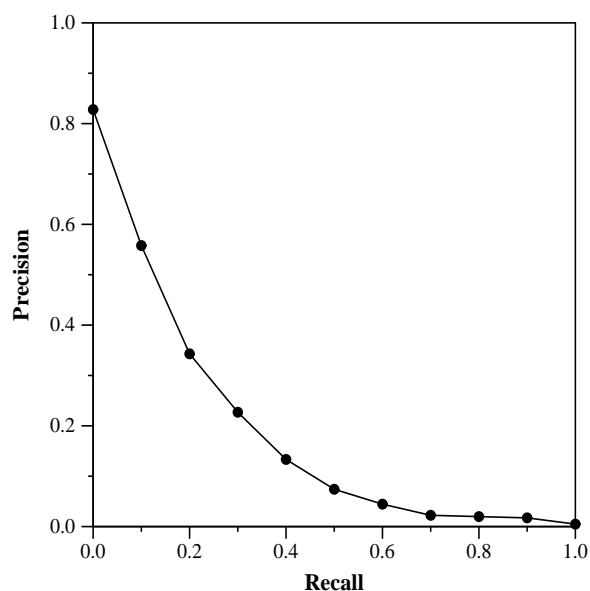
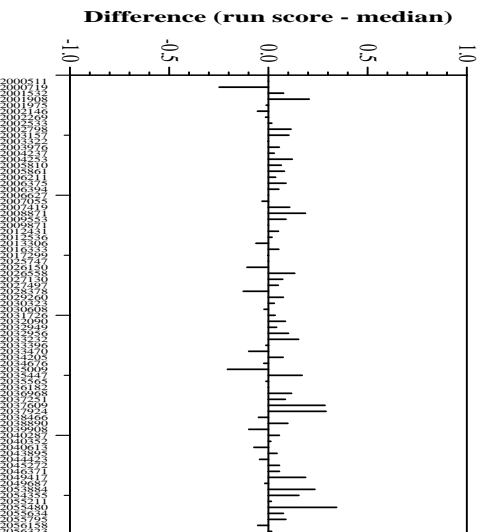


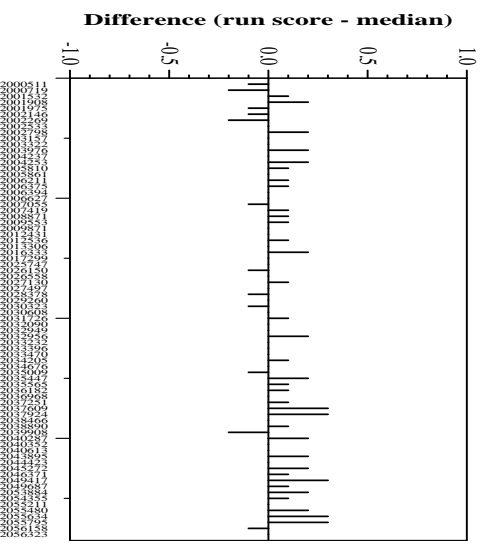
Run Description	
Run ID:	cip_f2_r
Task:	Passage Ranking
Subtask:	Full ranking from the collection
Topic type:	Automatic
Single-stage retrieval?	No
Dense retrieval?	Yes
Baseline run?	No
Used deep nn model?	Pre-trained model
Type of training:	This year's MS MARCO training data; Previous year's MS MARCO training data
Training cost:	Cost about 650 minutes for training on MS MARCO v1 on a single GeForce RTX (24G) 3090 GPU, 615 minutes for training on MS MARCO v2 on a single NVIDIA TITAN RTX (24G) GPU and 945 minutes for re-ranking model training on six NVIDIA TITAN RTX (24G) GPU. The total GPU minutes is 6,320 minutes.
Pre-processing/indexing cost:	Cost 507 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 3042 minutes.
Query processing cost:	Cost 84 minutes for dense retrieval, 189 minutes for docT5query ensemble and 1 minutes and 49 seconds for re-ranking on six NVIDIA TITAN RTX (24G) GPUs. The total GPU minutes is 11 minutes.

Overall measures		Document Level Averages	
Number of topics	76		Precision
Total number retrieved	6760	At 5 docs	0.5474
Total relevant	4613	At 10 docs	0.4882
Total relevant retrieved	1121	At 15 docs	0.4351
MAP	0.1752	At 20 docs	0.3908
Mean NDCG@10	0.5776	At 30 docs	0.3263
Mean Reciprocal Rank	0.7758	R-Precision	
		Exact	0.2427

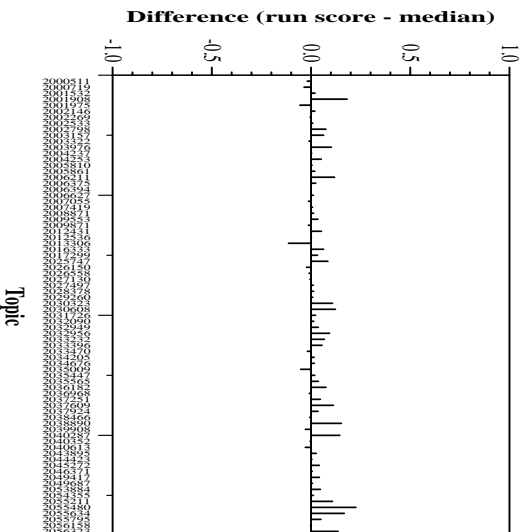




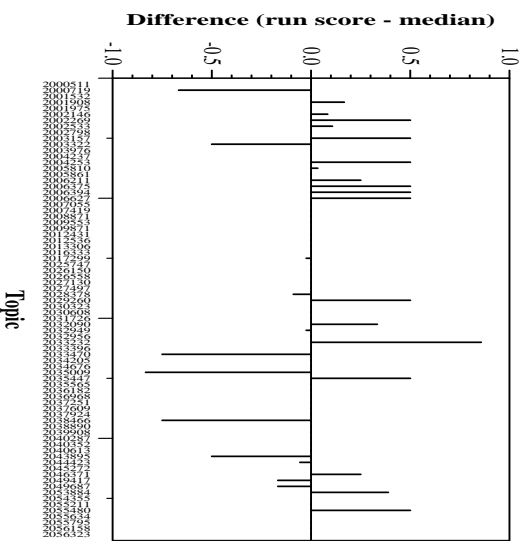
Per-topic difference from median for NDCG@10 for Passage Ranking runs



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