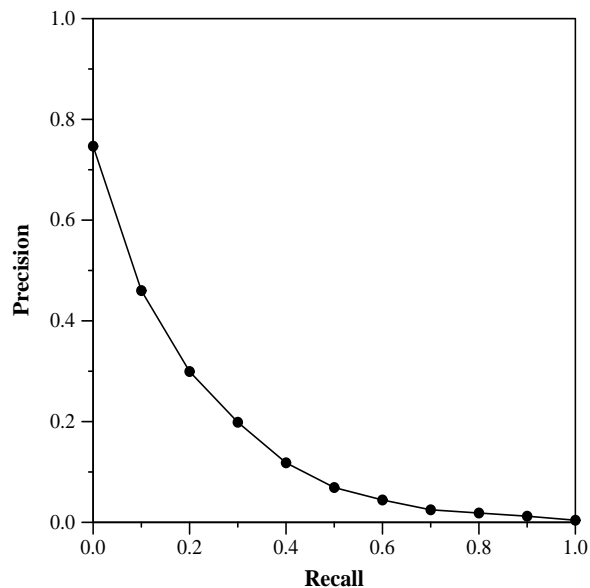


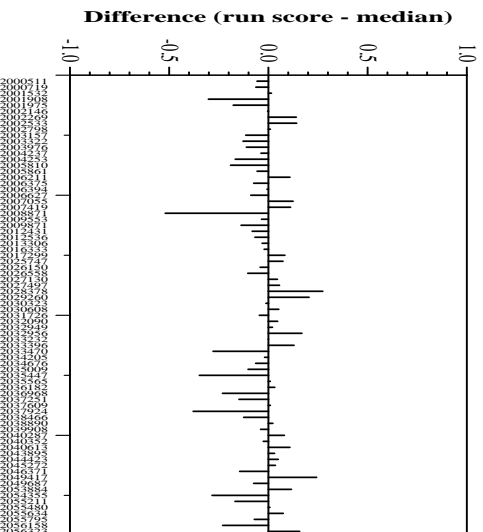
Deep Learning Track results — (CIP) Chinese Information Processing Lab

Run Description	
Run ID:	cip_fl
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 about 650 minutes for training in MS MARCO v1 on a single GeForce RTX (24G) 3090 GPU and 615 minutes for training in MS MARCO v2 on a single NVIDIA TITAN RTX (24G) GPU. The total GPU minutes is 1265 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. No GPU was used.

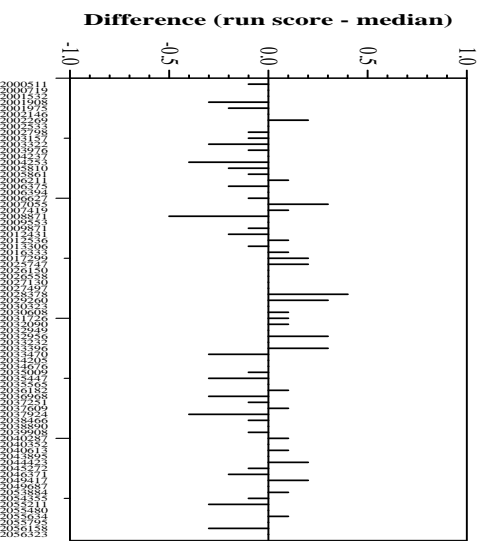
Overall measures	
Number of topics	76
Total number retrieved	6760
Total relevant	4613
Total relevant retrieved	1121
MAP	0.1503
Mean NDCG@10	0.4987
Mean Reciprocal Rank	0.7048

Document Level Averages	
Precision	
At 5 docs	0.4579
At 10 docs	0.4079
At 15 docs	0.3526
At 20 docs	0.3204
At 30 docs	0.2750
R-Precision	
Exact	0.2237

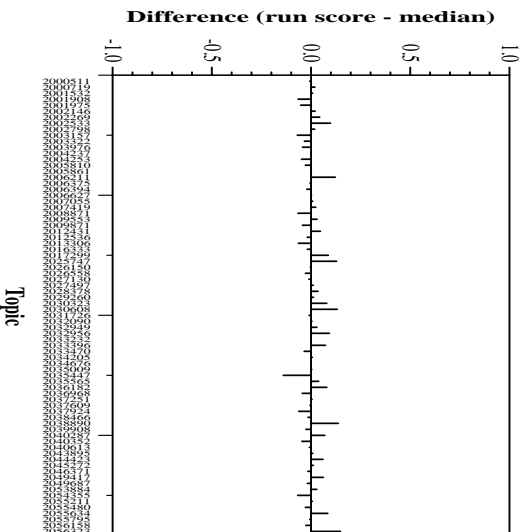




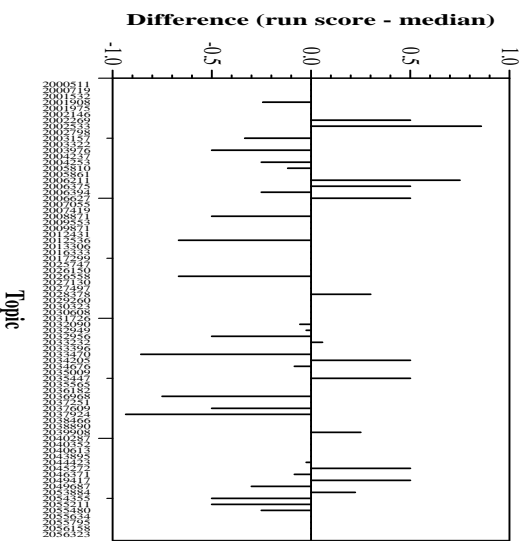
Per-topic difference from median for NDCG@10 for Passage Ranking runs



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