

Deep Learning Track results — (TU\_Vienna) TU Wien - Vienna University of Technology

Run Description	
Run ID	TUW-TK-2Layer
Task	Passage Ranking
Subtask	Reranking
Topic type	Automatic
Used deep nn model?	Yes
Type of training	Used passage task training labels
ORCAS data used for something other than training?	No
Training cost?	TK only uses a 2 layered Transformer; Training time to early stopping $\approx$ 10 hours on single TITAN RTX GPU. Inference (per TITAN RTX GPU) $\approx$ 6000 query-document pairs per second in fp32 and pytorch model configuration.

Overall measures		Document Level Averages	
Number of topics	54		Precision
Total number retrieved	50024	At 5 docs	0.5889
Total relevant	1666	At 10 docs	0.5019
Total relevant retrieved	959	At 15 docs	0.4309
MAP	0.4179	At 20 docs	0.3787
Mean NDCG@10	0.6539	At 30 docs	0.3043
Mean NDCG@1000	0.6423	R-Precision	
Mean Reciprocal Rank	0.7654	Exact	0.4213



