A BORING-YET-EFFECTIVE APPROACH FOR PRODUCT RERANKING

Task #1 9th place

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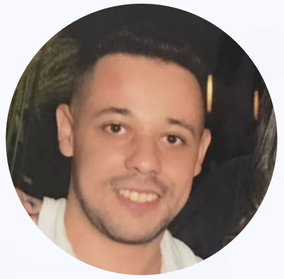
TEAM

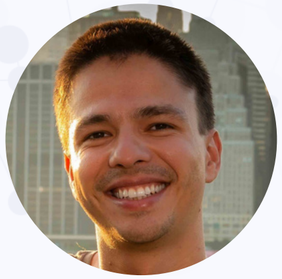
Vitor Jeronymo



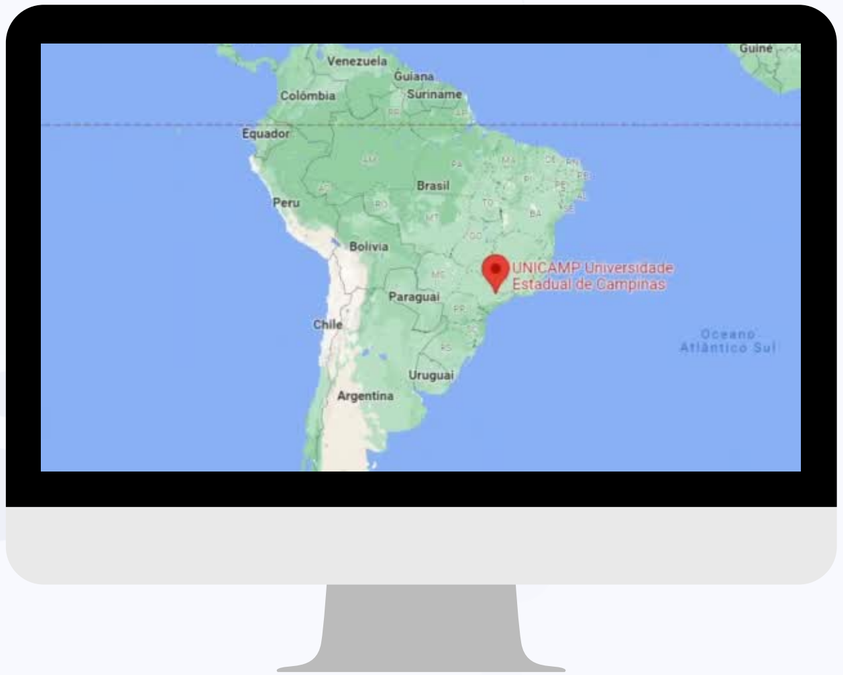
Guilherme Rosa

Surya Kallumadi

Roberto Lotufo



Rodrigo Nogueira

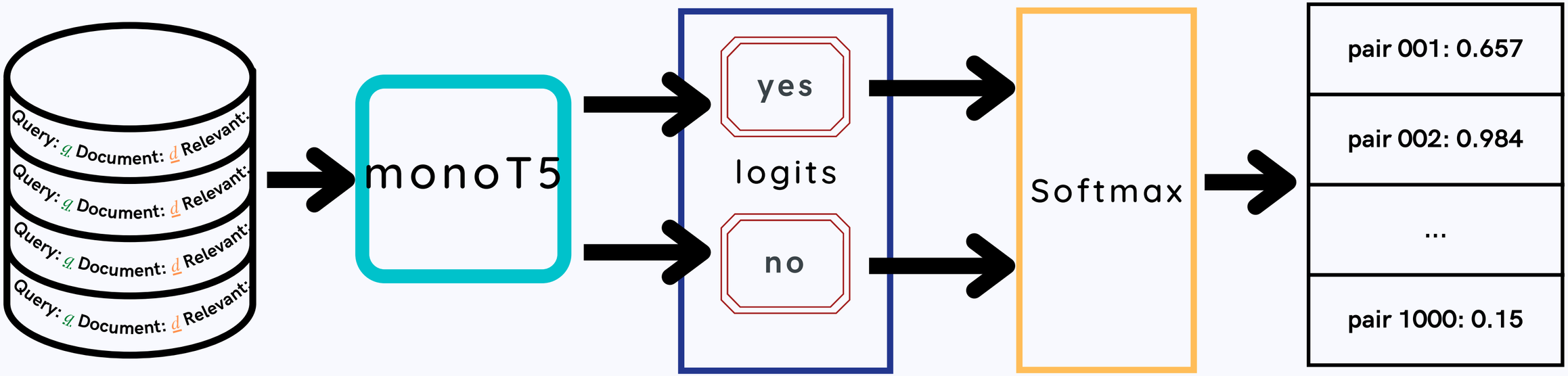


1 MODEL

MonoT5

- Sequence-to-sequence model

Query: *q* *water* Document: *d* Relevant: *water is wet because*



Why Boring?

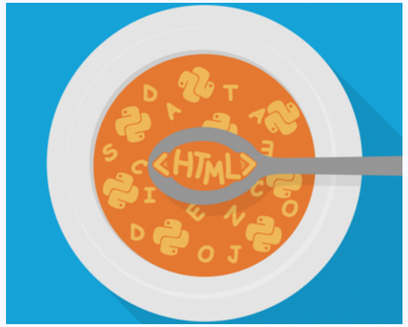
State of the art (or close to):

- 🏆 TREC 2004 Robust Track
- 🏆 COLIEE2021
- 🏆 COLIEE2022
- 🏆 TREC-COVID
- 🏆 Precision Medicine 2020
- 🏆 Health Misinformation 2020
- 🏆 Health Misinformation 2021

2 DATA PREP

DATA PREP

- ☑ BeautifulSoup



- ☑ Concatenate fields

Product = product_id + " " + product_title + " " + product_description + " " + product_bullet_point + " " + product_brand + " " + product_color_name

3 TRAINING

Multilingual T5

- Fine-tuned on [mMarco]

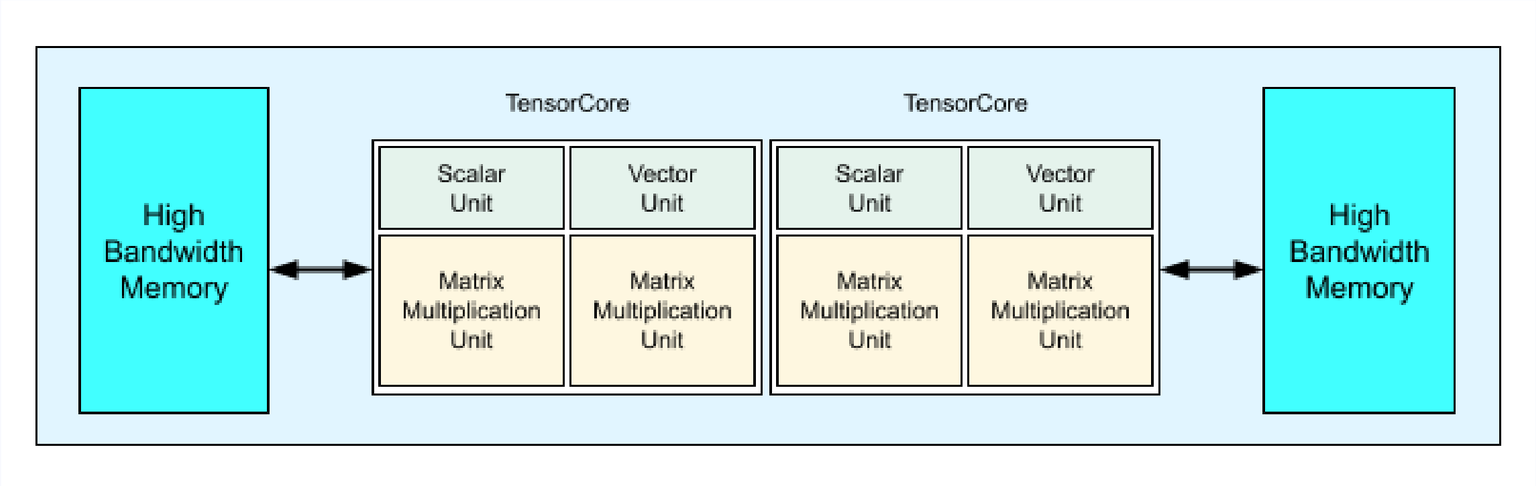
- Further fine-tuned on Task1 and Task2 data

yes_{token} = "exact"

no_{token} = "substitute" "complement" "irrelevant"

BORING BUT NOT TRIVIAL

- mT5 - 3.7billion parameters
- mMarco: 7 days on a TPUv3
- Task 1 and 2: 3 days
- V-100 - CUDA out of memory.



4 RESULTS

AMAZON KDD CUP '22

TASK 1

RANK	TEAM	NDCG (PRIVATE)	NDCG (PUBLIC)
1st	www	0.9043	0.9057
2nd	qinpersevere	0.9036	0.9047
3rd	day-day-up	0.9035	0.9056
4th	GraphMIRAcles	0.9028	0.9036
5th	ZhichunRoad	0.9025	0.9035
6th	ETS-Lab	0.9014	0.9025
7th	ALONG	0.9014	0.8999
8th	ljr333	0.9008	0.9012
9th	NeuralMind	0.9007	0.9012
10th	zackchen	0.8998	0.9030

HIGH NDCG

- Less than 1% difference in nDCG@20 from 18th to 1st team
- Human annotators disagreement?
- In need of more difficult datasets

THANK YOU!

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