2/9/2026 12:50:21 PM

Compare Results

Old File:
2024.emnlp-main.336.pdf
13 pages (10.95 MB)

versus

New File:
2024_emnlp-main_336.pdf
2 pages (159 KB)
2/8/2026 5:09:26 AM

Total Changes

23

Content

10 Replacements
1 Insertion
12 Deletions

Styling and Annotations

0 Styling
0 Annotations

Go to First Change (page 1)

Summary of Comments on A91raeo61_7gd83m_td4.tmp

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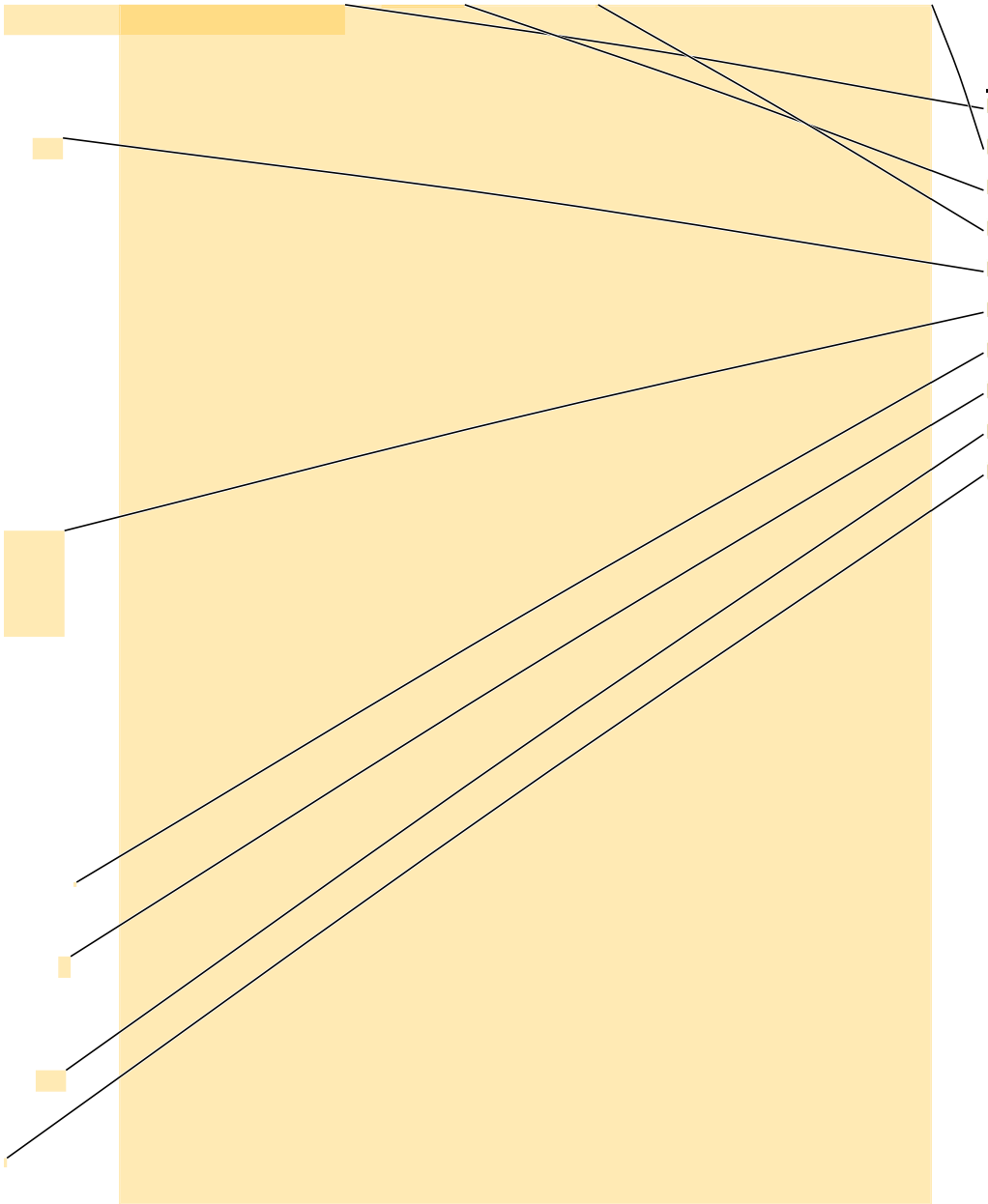

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MTA4DPR: Multi-Teaching-Assistants Based Iterative Knowledge Distillation for Dense Passage Retrieval

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Abstract

Although Dense Passage Retrieval (DPR) models have achieved significantly enhanced performance, their widespread application is still hindered by the demanding inference efficiency and high deployment costs. Knowledge distillation is an efficient method to compress models, which transfers knowledge from strong teacher models to weak student models. Previous studies have proved the effectiveness of knowledge distillation in DPR. However, there often remains a significant performance gap between the teacher and the distilled student. To narrow this performance gap, we propose MTA4DPR, a Multi-Teaching-Assistants based iterative knowledge distillation method for Dense Passage Retrieval, which transfers knowledge from the teacher to the student with the help of multiple assistants in an iterative manner; with each iteration, the student learns from more performant assistants and more difficult data. The experimental results show that our 66M student model achieves the state-of-the-art performance among models with same params[MISSING]

1 Introduction

[MISSING CONTENT]

2 Methodology

[MISSING CONTENT]

*Corresponding author

3 Experiments

[MISSING CONTENT]

4 Conclusion

[MISSING CONTENT]

A Algorithm

Algorithm 1 MTA4DPR Training Process

Require: : the teacher model; : the assistant models; : the student model; : the query set; : the passage set; : maximum number of training iterations; : maximum number of training steps; : Learning rate;

Ensure:

1:
2: **while** **do**
3: {[ILLEGIBLE]}
4: [MISSING]
5: **end while**

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