MP1 Kaggle Competition

Group 9

Member: Kuang-Ming Chen, Mike Huang

For this Kaggle competition, we made several adjustments to our model and training strategies to improve performance.

First of all, submitting the model fine-tuned in Part 2 of this project resulted in a mAP@10 score of 0.23. We didn't think the score was good enough. To improve ranking performance, we switched to a different model, mxbai-embed-large-v1, which boosted our score to roughly 0.28.

We thought that the final several layers might impact performance, so we did some adjustment on layer freezing. Fine-tuning without freezing any layers took too long. Because the new model consisted of 23 layers, we experimented with freezing layers 1-16 while fine-tuning layers 17-23. This adjustment further improved our score to approximately 0.34 on Kaggle.

Model fine-tuning settings:

Learning rate: 2e-4

Epoch: 10

Batch size: 32

Optimizer: AdamW

Below is the screenshot of training loss curve: