CS60010 - Deep Learning

Assignment - 2 (Named Entity Recognition)



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Dataset: https://multiconer.github.io/dataset

Language Domain: English, Hindi, Bengali

Link to model files:

https://drive.google.com/drive/folders/1mXvwkmFfw95wFHZWp

UwV71W8TglLoeaF?usp=share_link

Model Description

The model architecture consists of an embedding layer, a bidirectional LSTM layer, and a linear layer for output prediction. The model is trained using the cross-entropy loss function. We are using Adam optimizer to update the weights.

<u>Hyperparameters Used</u>

EMBEDDING_DIM = 512 HIDDEN_DIM = 512 NUM_EPOCHS = 10 BATCH_SIZE = 64 NUM_LAYERS = 1

Performance

We are using weighted average scores for comparison

Precision

English-Fine: 0.91
English-Coarse: 0.93
Hindi-Fine: 0.95
Hindi-Coarse: 0.95
Bangla-Fine: 0.95
Bangla-Coarse: 0.96

Recall

English-Fine: 0.91 English-Coarse: 0.94 Hindi-Fine: 0.96 Hindi-Coarse: 0.96
Bangla-Fine: 0.94
Bangla-Coarse: 0.96

F-Score

English-Fine: 0.91
English-Coarse: 0.93
Hindi-Fine: 0.95
Hindi-Coarse: 0.95
Bangla-Fine: 0.94
Bangla-Coarse: 0.96