

HOMEWORK – 4

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Task 1: Simple Bidirectional LSTM model

What are the precision, recall and F1 score on the dev data?

```
(nlp) rheaanand@Rheas-MacBook-Pro hw4 % perl conll03eval.txt <
data/dev1.out
processed 51578 tokens with 5942 phrases; found: 5169 phrases;
correct: 4201.
accuracy: 94.74%; precision: 81.27%; recall: 70.70%; FB1: 75.62
          LOC: precision: 84.42%; recall: 81.71%; FB1: 83.04
1778
          MISC: precision: 83.58%; recall: 67.90%; FB1: 74.93
749
          ORG: precision: 77.89%; recall: 59.88%; FB1: 67.71
1031
          PER: precision: 78.90%; recall: 69.00%; FB1: 73.62
1611
```

Task 2: Using GloVe word embeddings

What are the precision, recall and F1 score on the dev data?

```
(nlp) rheaanand@Rheas-MacBook-Pro hw4 % perl conll03eval.txt <
data/dev2.out
processed 51578 tokens with 5942 phrases; found: 5903 phrases;
correct: 5217.
accuracy: 97.67%; precision: 88.38%; recall: 87.80%; FB1: 88.09
          LOC: precision: 92.30%; recall: 92.05%; FB1: 92.18
1832
          MISC: precision: 85.73%; recall: 76.90%; FB1: 81.07
827
          ORG: precision: 79.41%; recall: 79.94%; FB1: 79.67
1350
          PER: precision: 92.13%; recall: 94.73%; FB1: 93.42
1894
```

Hyperparameters used in the architecture

batch_size = 20
embedding_length = 100,
learning_rate = 0.12