

## Deep Learning - 89687

### Ass3 – Part 3

#### Our parameters:

On NER the loss on 'O' tag was weighted down to be 30% of the training loss over this tag.

#### Transducer a:

##### Pos:

- hidden dimension = 256
- embedding\_size = 2000
- batch\_size = 100 (and 1 if predict)
- learning\_rate = 0.0003

##### Ner:

- hidden dimension = 500
- embedding\_size = 200
- batch\_size = 128 (and 1 if predict)
- learning\_rate = 0.0007

#### Transducer b:

##### Pos:

- hidden dimension = 120
- embedding\_size = 80
- batch\_size = 8 (and 1 if predict)
- learning\_rate = 0.003
- btw\_rnn = 200

##### Ner:

- hidden dimension = 250
- embedding\_size = 80
- batch\_size = 80 (and 1 if predict)
- learning\_rate = 0.003
- btw\_rnn = 300

#### Transducer c:

##### Pos:

- hidden dimension = 128
- embedding\_size = 30
- batch\_size = 16 (and 1 if predict)
- learning\_rate = 0.007

##### Ner:

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- hidden dimension = 250
- embedding\_size = 2000
- batch\_size = 128 (and 1 if predict)
- learning\_rate = 0.0007

### Transducer d:

#### Pos:

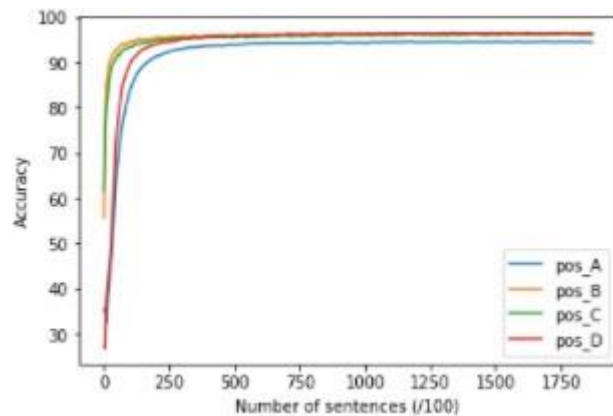
- hidden dimension = (256, 120)
- embedding\_size = (2000, 80)
- batch\_size = 64 (and 1 if predict)
- learning\_rate = 0.0003
- btw\_rnnns = 200

#### Ner:

- hidden dimension = (200, 250)
- embedding\_size = (1000, 80)
- batch\_size = 64 (and 1 if predict)
- learning\_rate = 0.0003
- btw\_rnnns = 500

## Graphs

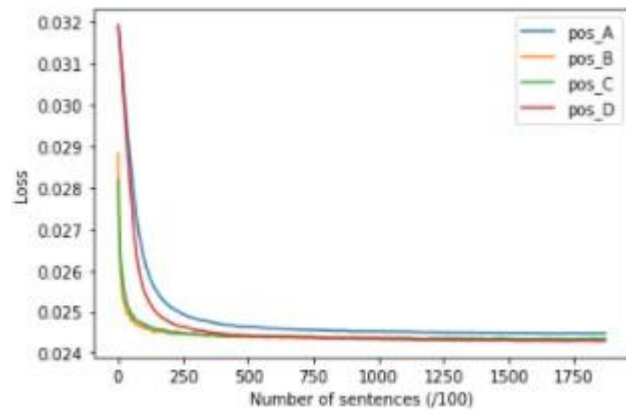
### Pos - Accuracy:



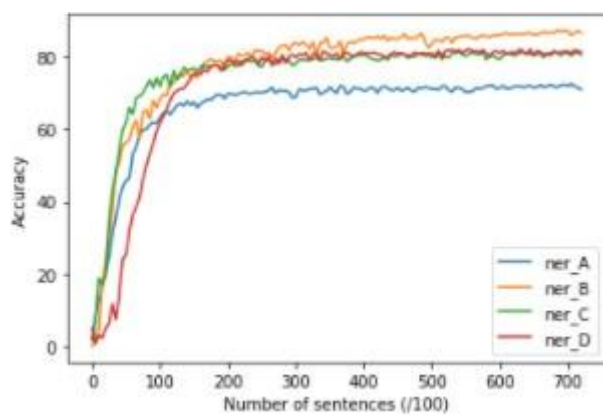
The best model seems to be D.

### Pos – Loss:

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### Ner – Accuracy:



The best model is B.

### Ner – Loss:

