# CS 1699 HW5 Justin Long – JJL90

# The code for part 1 and 2 of this assignment can be found here:

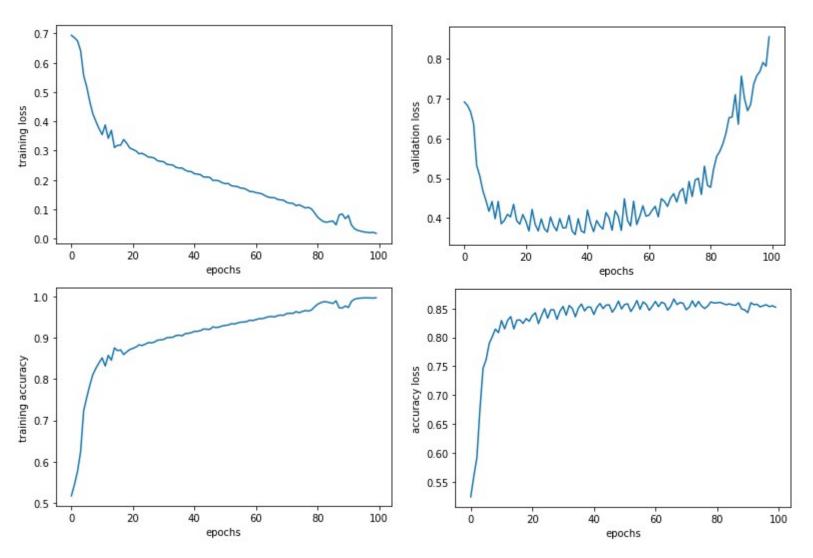
https://colab.research.google.com/drive/1BYVie1jxpKuVApMkjuIh72YAupIF6751

# **NOTE:**

I will be using all remaining late credit (72 hours) for this assignment

### Part 1.

1.



### **LSTMCell**

training loss

training accuracy

20

40

epochs

60

```
Total Parameters: 91200
      Model Architecture:
      SentimentClassification(
              (embedding): Embedding(4835, 128, padding_idx=0)
(rnn_model): LSTMCell(input_size=128, hidden_size=100, bias=True)
              (classifier): Linear(in_features=100, out_features=2, bias=True)
      Best validation accuracy: 0.8330
0.70
0.65
                                                                    0.65
0.60
                                                                   0.60
                                                                 validation loss
0.55
0.50
                                                                   0.55
0.45
                                                                    0.50
0.40
0.35
                                                                   0.45
0.30
                                                                                    20
                                                                                                                            100
                                                                                                        60
                 20
                                                80
                                                         100
                                                                                                 epochs
                              epochs
0.90
                                                                    0.80
0.85
                                                                    0.75
0.80
                                                                 accuracy loss
0.75
                                                                   0.70
0.70
                                                                   0.65
0.65
                                                                    0.60
0.60
                                                                    0.55
0.55
                                                                    0.50
0.50
                                                                                    20
                                                                                              40
                                                                                                        60
                                                                                                                   80
                                                                                                                            100
```

100

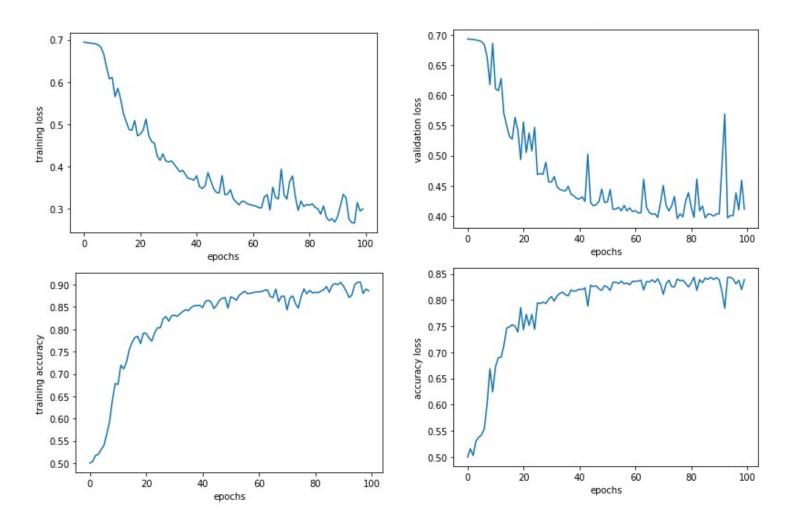
epochs

80

# **PeepholedLSTMCell**

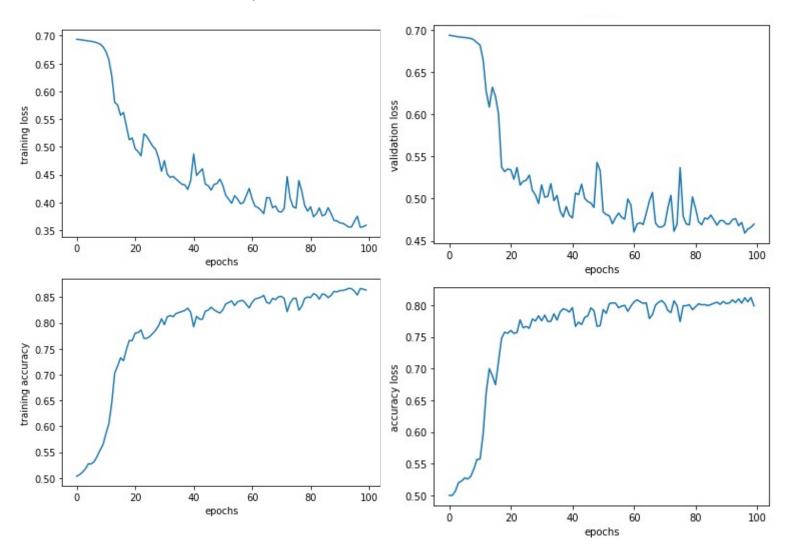
```
Total Parameters: 108400
Model Architecture:
SentimentClassification(
          (embedding): Embedding(4835, 128, padding_idx=0)
          (rnn_model): PeepholedLSTMCell(input_size=128, hidden_size=100, bias=True)
          (classifier): Linear(in_features=100, out_features=2, bias=True)
)
```

Best validation accuracy: 0.8436

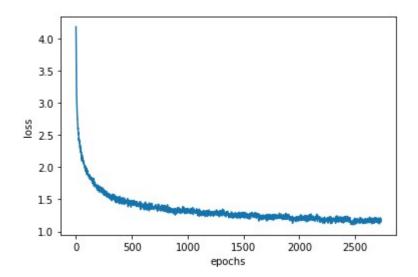


# **CoupledLSTM**

Best validation accuracy: 0.8120



### Part 2.



#### ROMEO:

Away, if the untrumper of that woman,
That we have presprides, on the callet did.
Hath well I love me leave of does.
Ah, when he's so full of high jewel of noble?
Wear of Marcius, Jesil; the news and put
dilly forfeither Aufidius with patience:
An old harries and fashion beg thee;
And yet the king so happy? if you, that I
Was my king, although up for a little garments,
I challenge when some's come-by that dealing.

#### GLOUCESTER:

Please you; farewell. Go, come to thee; go on,
And obscent to hear; his promised sleep,
To save them that is beef to lose your father. Warwick
will; seeb, kept knows not, sweet God were eternal.
This friend duke may for your dukedom as they'le;
The likes workest King Henry's gaunt i' thine,
And make me walled. My death I lave his son. Please, men she's done.
An oracle, where I have laid may pursuping him;
And he that fail down mad double faming?

### BRUTUS:

But this is Claudio.

#### LoWBBURY:

Ant, my lord, and Edward had it in all my feet:
The westor, may mine honours than resolve,
And my punishing curchase, of it
I act to fall him as mere like inlexate:
Urge his health, the Angel of Crriaps.
How with him
They'lo have eads bodes on my bords; so present
Hath been how more villain.

### DUKE VINCENTIO:

An she hath slewith a very king, then.

### ROMEO:

'Tis foul true, and thou delight in it. I am. Ah, Camillo, 'tis now to ready thyself. Now since it can him that is tears.

#### Nurse:

I have had made voices, bulk-boyb-soldies said there Even to this.

### AUTOLYCUS:

'Tis no harm, and am to poise; and be gone, Not out, good plafely in me? if thou drawn some commanded, so some form they are you stoop's deed. Know for the fish; I'll try by your noble certain's; And let list to claim our foes on many.

### But, Corie\$:

Here comes here, Pompey. Apble him myself; But I am cure my name? there's more hands.

#### LUCIO:

A gentler kind of his.

### MARIANA:

Let's to, your son ask you for me as she Than as this unto me like to be sour'd; Come home to go. The polecture yea; he leam, And let

# Part 3.

I coded some of the assignment but could not get it working. If there is any way the code could be put online after the assignment because I really want to know the answer and I am little upset with myself that I could not get it to work.