Entering function \_\_main\_\_

Embedding tokens size=400001

Total data size is 100000

Our 2 labels to index dictionary ={u'russia': 0, u'us': 1}

Our 2 index to labels dictionary ={0: u'russia', 1: u'us'}

x\_train: 81000, x\_dev: 9000, x\_test: 10000

y\_train: 81000, y\_dev: 9000, y\_test: 10000

input\_data\_x\_batch shape: (100, 150)

input\_labels\_batch shape: (100, 2)

gru\_forward\_cell units: 64

gru\_backward\_cell units: 64

Epoch: 1/20 ---- best so far on epoch 0: acc=0.0000%

0)learning rate is 0.1

DEV accuracy on epoch 1/20 in train step 0 = 49.7222%

Class russia: (0/4525) -> accuracy: 0.0000%

Class us : (4475/4475) -> accuracy: 100.0000%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 1

INFO:root: Best accuracy 49.7222% at epoch 1/20 (4475/9000)

DEV accuracy on epoch 1/20 in train step 405 = 60.0444%

Class russia: (1024/4525) -> accuracy: 22.6298%

Class us : (4380/4475) -> accuracy: 97.8771%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 1

INFO:root: Best accuracy 60.0444% at epoch 1/20 (5404/9000)

DEV accuracy on epoch 1/20 in train step 809 = 71.5444%

Class russia: (3089/4525) -> accuracy: 68.2652%

Class us : (3350/4475) -> accuracy: 74.8603%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 1

INFO:root: Best accuracy 71.5444% at epoch 1/20 (6439/9000)

###################################################################################################

Epoch: 2/20 ---- best so far on epoch 1: acc=71.5444%

1)learning rate is 0.01

DEV accuracy on epoch 2/20 in train step 0 = 71.4889%

Class russia: (3103/4525) -> accuracy: 68.5746%

Class us : (3331/4475) -> accuracy: 74.4358%

DEV accuracy on epoch 2/20 in train step 405 = 72.9444%

Class russia: (3222/4525) -> accuracy: 71.2044%

Class us : (3343/4475) -> accuracy: 74.7039%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 2

INFO:root: Best accuracy 72.9444% at epoch 2/20 (6565/9000)

DEV accuracy on epoch 2/20 in train step 809 = 73.1222%

Class russia: (2953/4525) -> accuracy: 65.2597%

Class us : (3628/4475) -> accuracy: 81.0726%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 2

INFO:root: Best accuracy 73.1222% at epoch 2/20 (6581/9000)

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Epoch: 3/20 ---- best so far on epoch 2: acc=73.1222%

2)learning rate is 0.01

DEV accuracy on epoch 3/20 in train step 0 = 73.1333%

Class russia: (3024/4525) -> accuracy: 66.8287%

Class us : (3558/4475) -> accuracy: 79.5084%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 3

INFO:root: Best accuracy 73.1333% at epoch 3/20 (6582/9000)

DEV accuracy on epoch 3/20 in train step 405 = 73.8222%

Class russia: (3226/4525) -> accuracy: 71.2928%

Class us : (3418/4475) -> accuracy: 76.3799%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 3

INFO:root: Best accuracy 73.8222% at epoch 3/20 (6644/9000)

DEV accuracy on epoch 3/20 in train step 809 = 73.8889%

Class russia: (3026/4525) -> accuracy: 66.8729%

Class us : (3624/4475) -> accuracy: 80.9832%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 3

INFO:root: Best accuracy 73.8889% at epoch 3/20 (6650/9000)

###################################################################################################

Epoch: 4/20 ---- best so far on epoch 3: acc=73.8889%

3)learning rate is 0.01

DEV accuracy on epoch 4/20 in train step 0 = 73.8333%

Class russia: (2978/4525) -> accuracy: 65.8122%

Class us : (3667/4475) -> accuracy: 81.9441%

DEV accuracy on epoch 4/20 in train step 405 = 73.9778%

Class russia: (3213/4525) -> accuracy: 71.0055%

Class us : (3445/4475) -> accuracy: 76.9832%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 4

INFO:root: Best accuracy 73.9778% at epoch 4/20 (6658/9000)

DEV accuracy on epoch 4/20 in train step 809 = 74.4667%

Class russia: (3156/4525) -> accuracy: 69.7459%

Class us : (3546/4475) -> accuracy: 79.2402%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 4

INFO:root: Best accuracy 74.4667% at epoch 4/20 (6702/9000)

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Epoch: 5/20 ---- best so far on epoch 4: acc=74.4667%

4)learning rate is 0.001

DEV accuracy on epoch 5/20 in train step 0 = 74.4222%

Class russia: (3149/4525) -> accuracy: 69.5912%

Class us : (3549/4475) -> accuracy: 79.3073%

DEV accuracy on epoch 5/20 in train step 405 = 74.6444%

Class russia: (3009/4525) -> accuracy: 66.4972%

Class us : (3709/4475) -> accuracy: 82.8827%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 5

INFO:root: Best accuracy 74.6444% at epoch 5/20 (6718/9000)

DEV accuracy on epoch 5/20 in train step 809 = 74.7889%

Class russia: (3129/4525) -> accuracy: 69.1492%

Class us : (3602/4475) -> accuracy: 80.4916%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 5

INFO:root: Best accuracy 74.7889% at epoch 5/20 (6731/9000)

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Epoch: 6/20 ---- best so far on epoch 5: acc=74.7889%

5)learning rate is 0.001

DEV accuracy on epoch 6/20 in train step 0 = 74.7333%

Class russia: (3136/4525) -> accuracy: 69.3039%

Class us : (3590/4475) -> accuracy: 80.2235%

DEV accuracy on epoch 6/20 in train step 405 = 74.6556%

Class russia: (3078/4525) -> accuracy: 68.0221%

Class us : (3641/4475) -> accuracy: 81.3631%

DEV accuracy on epoch 6/20 in train step 809 = 74.8889%

Class russia: (3120/4525) -> accuracy: 68.9503%

Class us : (3620/4475) -> accuracy: 80.8939%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 6

INFO:root: Best accuracy 74.8889% at epoch 6/20 (6740/9000)

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Epoch: 7/20 ---- best so far on epoch 6: acc=74.8889%

6)learning rate is 0.001

DEV accuracy on epoch 7/20 in train step 0 = 74.8889%

Class russia: (3133/4525) -> accuracy: 69.2376%

Class us : (3607/4475) -> accuracy: 80.6034%

DEV accuracy on epoch 7/20 in train step 405 = 74.6556%

Class russia: (3088/4525) -> accuracy: 68.2431%

Class us : (3631/4475) -> accuracy: 81.1397%

DEV accuracy on epoch 7/20 in train step 809 = 74.9444%

Class russia: (3119/4525) -> accuracy: 68.9282%

Class us : (3626/4475) -> accuracy: 81.0279%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 7

INFO:root: Best accuracy 74.9444% at epoch 7/20 (6745/9000)

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Epoch: 8/20 ---- best so far on epoch 7: acc=74.9444%

7)learning rate is 0.001

DEV accuracy on epoch 8/20 in train step 0 = 74.9889%

Class russia: (3135/4525) -> accuracy: 69.2818%

Class us : (3614/4475) -> accuracy: 80.7598%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 8

INFO:root: Best accuracy 74.9889% at epoch 8/20 (6749/9000)

DEV accuracy on epoch 8/20 in train step 405 = 74.6444%

Class russia: (3054/4525) -> accuracy: 67.4917%

Class us : (3664/4475) -> accuracy: 81.8771%

DEV accuracy on epoch 8/20 in train step 809 = 75.0000%

Class russia: (3169/4525) -> accuracy: 70.0331%

Class us : (3581/4475) -> accuracy: 80.0223%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 8

INFO:root: Best accuracy 75.0000% at epoch 8/20 (6750/9000)

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Epoch: 9/20 ---- best so far on epoch 8: acc=75.0000%

8)learning rate is 0.001

DEV accuracy on epoch 9/20 in train step 0 = 74.9556%

Class russia: (3172/4525) -> accuracy: 70.0994%

Class us : (3574/4475) -> accuracy: 79.8659%

DEV accuracy on epoch 9/20 in train step 405 = 74.7111%

Class russia: (3061/4525) -> accuracy: 67.6464%

Class us : (3663/4475) -> accuracy: 81.8547%

DEV accuracy on epoch 9/20 in train step 809 = 75.0222%

Class russia: (3128/4525) -> accuracy: 69.1271%

Class us : (3624/4475) -> accuracy: 80.9832%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 9

INFO:root: Best accuracy 75.0222% at epoch 9/20 (6752/9000)

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Epoch: 10/20 ---- best so far on epoch 9: acc=75.0222%

9)learning rate is 0.001

DEV accuracy on epoch 10/20 in train step 0 = 75.0222%

Class russia: (3130/4525) -> accuracy: 69.1713%

Class us : (3622/4475) -> accuracy: 80.9385%

DEV accuracy on epoch 10/20 in train step 405 = 74.7889%

Class russia: (3061/4525) -> accuracy: 67.6464%

Class us : (3670/4475) -> accuracy: 82.0112%

DEV accuracy on epoch 10/20 in train step 809 = 75.0444%

Class russia: (3140/4525) -> accuracy: 69.3923%

Class us : (3614/4475) -> accuracy: 80.7598%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 10

INFO:root: Best accuracy 75.0444% at epoch 10/20 (6754/9000)

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Epoch: 11/20 ---- best so far on epoch 10: acc=75.0444%

10)learning rate is 0.001

DEV accuracy on epoch 11/20 in train step 0 = 75.1000%

Class russia: (3147/4525) -> accuracy: 69.5470%

Class us : (3612/4475) -> accuracy: 80.7151%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 11

INFO:root: Best accuracy 75.1000% at epoch 11/20 (6759/9000)

DEV accuracy on epoch 11/20 in train step 405 = 75.0222%

Class russia: (3122/4525) -> accuracy: 68.9945%

Class us : (3630/4475) -> accuracy: 81.1173%

DEV accuracy on epoch 11/20 in train step 809 = 75.0444%

Class russia: (3117/4525) -> accuracy: 68.8840%

Class us : (3637/4475) -> accuracy: 81.2737%

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Epoch: 12/20 ---- best so far on epoch 11: acc=75.1000%

11)learning rate is 0.001

DEV accuracy on epoch 12/20 in train step 0 = 75.1222%

Class russia: (3135/4525) -> accuracy: 69.2818%

Class us : (3626/4475) -> accuracy: 81.0279%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 12

INFO:root: Best accuracy 75.1222% at epoch 12/20 (6761/9000)

DEV accuracy on epoch 12/20 in train step 405 = 74.9667%

Class russia: (3100/4525) -> accuracy: 68.5083%

Class us : (3647/4475) -> accuracy: 81.4972%

DEV accuracy on epoch 12/20 in train step 809 = 75.2444%

Class russia: (3127/4525) -> accuracy: 69.1050%

Class us : (3645/4475) -> accuracy: 81.4525%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 12

INFO:root: Best accuracy 75.2444% at epoch 12/20 (6772/9000)

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Epoch: 13/20 ---- best so far on epoch 12: acc=75.2444%

12)learning rate is 0.001

DEV accuracy on epoch 13/20 in train step 0 = 75.1444%

Class russia: (3137/4525) -> accuracy: 69.3260%

Class us : (3626/4475) -> accuracy: 81.0279%

DEV accuracy on epoch 13/20 in train step 405 = 75.0111%

Class russia: (3121/4525) -> accuracy: 68.9724%

Class us : (3630/4475) -> accuracy: 81.1173%

DEV accuracy on epoch 13/20 in train step 809 = 75.3667%

Class russia: (3146/4525) -> accuracy: 69.5249%

Class us : (3637/4475) -> accuracy: 81.2737%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 13

INFO:root: Best accuracy 75.3667% at epoch 13/20 (6783/9000)

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Epoch: 14/20 ---- best so far on epoch 13: acc=75.3667%

13)learning rate is 0.001

DEV accuracy on epoch 14/20 in train step 0 = 75.3444%

Class russia: (3155/4525) -> accuracy: 69.7238%

Class us : (3626/4475) -> accuracy: 81.0279%

DEV accuracy on epoch 14/20 in train step 405 = 75.0111%

Class russia: (3113/4525) -> accuracy: 68.7956%

Class us : (3638/4475) -> accuracy: 81.2961%

DEV accuracy on epoch 14/20 in train step 809 = 75.5111%

Class russia: (3115/4525) -> accuracy: 68.8398%

Class us : (3681/4475) -> accuracy: 82.2570%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 14

INFO:root: Best accuracy 75.5111% at epoch 14/20 (6796/9000)

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Epoch: 15/20 ---- best so far on epoch 14: acc=75.5111%

14)learning rate is 0.001

DEV accuracy on epoch 15/20 in train step 0 = 75.5222%

Class russia: (3127/4525) -> accuracy: 69.1050%

Class us : (3670/4475) -> accuracy: 82.0112%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 15

INFO:root: Best accuracy 75.5222% at epoch 15/20 (6797/9000)

DEV accuracy on epoch 15/20 in train step 405 = 75.3000%

Class russia: (3150/4525) -> accuracy: 69.6133%

Class us : (3627/4475) -> accuracy: 81.0503%

DEV accuracy on epoch 15/20 in train step 809 = 75.4889%

Class russia: (3132/4525) -> accuracy: 69.2155%

Class us : (3662/4475) -> accuracy: 81.8324%

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Epoch: 16/20 ---- best so far on epoch 15: acc=75.5222%

15)learning rate is 0.001

DEV accuracy on epoch 16/20 in train step 0 = 75.4889%

Class russia: (3140/4525) -> accuracy: 69.3923%

Class us : (3654/4475) -> accuracy: 81.6536%

DEV accuracy on epoch 16/20 in train step 405 = 75.2333%

Class russia: (3145/4525) -> accuracy: 69.5028%

Class us : (3626/4475) -> accuracy: 81.0279%

DEV accuracy on epoch 16/20 in train step 809 = 75.5667%

Class russia: (3183/4525) -> accuracy: 70.3425%

Class us : (3618/4475) -> accuracy: 80.8492%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 16

INFO:root: Best accuracy 75.5667% at epoch 16/20 (6801/9000)

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Epoch: 17/20 ---- best so far on epoch 16: acc=75.5667%

16)learning rate is 0.001

DEV accuracy on epoch 17/20 in train step 0 = 75.5556%

Class russia: (3198/4525) -> accuracy: 70.6740%

Class us : (3602/4475) -> accuracy: 80.4916%

DEV accuracy on epoch 17/20 in train step 405 = 75.3333%

Class russia: (3127/4525) -> accuracy: 69.1050%

Class us : (3653/4475) -> accuracy: 81.6313%

DEV accuracy on epoch 17/20 in train step 809 = 75.4667%

Class russia: (3072/4525) -> accuracy: 67.8895%

Class us : (3720/4475) -> accuracy: 83.1285%

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Epoch: 18/20 ---- best so far on epoch 16: acc=75.5667%

17)learning rate is 0.001

DEV accuracy on epoch 18/20 in train step 0 = 75.4333%

Class russia: (3087/4525) -> accuracy: 68.2210%

Class us : (3702/4475) -> accuracy: 82.7263%

DEV accuracy on epoch 18/20 in train step 405 = 75.4333%

Class russia: (3099/4525) -> accuracy: 68.4862%

Class us : (3690/4475) -> accuracy: 82.4581%

DEV accuracy on epoch 18/20 in train step 809 = 75.3333%

Class russia: (3086/4525) -> accuracy: 68.1989%

Class us : (3694/4475) -> accuracy: 82.5475%

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Epoch: 19/20 ---- best so far on epoch 16: acc=75.5667%

18)learning rate is 0.001

DEV accuracy on epoch 19/20 in train step 0 = 75.3778%

Class russia: (3096/4525) -> accuracy: 68.4199%

Class us : (3688/4475) -> accuracy: 82.4134%

DEV accuracy on epoch 19/20 in train step 405 = 75.5111%

Class russia: (3171/4525) -> accuracy: 70.0773%

Class us : (3625/4475) -> accuracy: 81.0056%

DEV accuracy on epoch 19/20 in train step 809 = 75.3889%

Class russia: (3110/4525) -> accuracy: 68.7293%

Class us : (3675/4475) -> accuracy: 82.1229%

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Epoch: 20/20 ---- best so far on epoch 16: acc=75.5667%

19)learning rate is 0.001

DEV accuracy on epoch 20/20 in train step 0 = 75.4333%

Class russia: (3125/4525) -> accuracy: 69.0608%

Class us : (3664/4475) -> accuracy: 81.8771%

DEV accuracy on epoch 20/20 in train step 405 = 75.3778%

Class russia: (3090/4525) -> accuracy: 68.2873%

Class us : (3694/4475) -> accuracy: 82.5475%

DEV accuracy on epoch 20/20 in train step 809 = 75.5222%

Class russia: (3193/4525) -> accuracy: 70.5635%

Class us : (3604/4475) -> accuracy: 80.5363%

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\*\*\*Training is complete. Best accuracy 75.5667% at epoch 16/20

\*\*\*Testing...

INFO:tensorflow:Restoring parameters from ../model\_temp/model.ckpt

INFO:tensorflow:Restoring parameters from ../model\_temp/model.ckpt

Accuracy on test set - (7489/10000) -> accuracy: 74.8900%

Class russia: (3493/4979) -> accuracy: 70.1546%

Class us : (3996/5021) -> accuracy: 79.5857%

End summary ----------------------

data:

DATA\_FILE\_PATH is ../input/2way\_rus\_usa\_v2\_25-150.txt

MINIMUM\_ROW\_LENGTH is 25

MAXIMUM\_ROW\_LENGTH is 150

COUNT\_WORD is 20

lines\_per\_class is 50000

number of classes is 2

Total data size is 100000

embedding:

EMB\_FILE\_PATH ../input/glove.6B.50d.txt

EMB\_DIM 50

EMB\_WORDS\_COUNT 400001

run config:

EPOCHS 20

BATCH\_SIZE 100

evaluating on dev data 3 times per epoch

KEEP\_PROB 0.5

BATCH\_SIZE 100

LSTM\_HIDDEN\_UNITS 64

LSTM\_CELL\_TYPE GRU

optimizer is adamOptimizer - learn rate: 1 epochs 0.1, 3 epochs 0.01 and the rest 0.001

model:

USE\_TMP\_FOLDER True

mdl\_path ../model\_temp/model.ckpt

results:

best training acc 75.5666666667

testing acc 74.89

Time(HH:MM:SS): 01:52:04

Leaving function \_\_main\_\_