Entering function \_\_main\_\_

Embedding tokens size=400001

File name 2way\_rus\_usa\_v2\_25-150. 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: (200, 150)

input\_labels\_batch shape: (200, 2)

gru\_forward\_cell units: 150

gru\_backward\_cell units: 150

---vars name and shapes---

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/kernel:0', TensorShape([Dimension(450), Dimension(300)]), 135000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/bias:0', TensorShape([Dimension(300)]), 300)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/kernel:0', TensorShape([Dimension(450), Dimension(150)]), 67500)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/bias:0', TensorShape([Dimension(150)]), 150)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/kernel:0', TensorShape([Dimension(300), Dimension(300)]), 90000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/bias:0', TensorShape([Dimension(300)]), 300)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/kernel:0', TensorShape([Dimension(300), Dimension(150)]), 45000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/bias:0', TensorShape([Dimension(150)]), 150)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/kernel:0', TensorShape([Dimension(450), Dimension(300)]), 135000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/bias:0', TensorShape([Dimension(300)]), 300)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/kernel:0', TensorShape([Dimension(450), Dimension(150)]), 67500)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/bias:0', TensorShape([Dimension(150)]), 150)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/kernel:0', TensorShape([Dimension(300), Dimension(300)]), 90000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/bias:0', TensorShape([Dimension(300)]), 300)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/kernel:0', TensorShape([Dimension(300), Dimension(150)]), 45000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/bias:0', TensorShape([Dimension(150)]), 150)

(u'weight:0', TensorShape([Dimension(300), Dimension(2)]), 600)

(u'bias:0', TensorShape([Dimension(2)]), 2)

total PARAM 677,402

---done vars---

Epoch: 1/10 ---- best so far on epoch 0: acc=0.0000%

DEV accuracy on epoch 1/10 in train step 202 = 50.2667%

Class russia: (4522/4525) -> accuracy: 99.9337%

Class us : (2/4475) -> accuracy: 0.0447%

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

INFO:root: Best accuracy 50.2667% at epoch 1/10 (4524/9000)

DEV accuracy on epoch 1/10 in train step 402 = 50.2778%

Class russia: (4525/4525) -> accuracy: 100.0000%

Class us : (0/4475) -> accuracy: 0.0000%

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

INFO:root: Best accuracy 50.2778% at epoch 1/10 (4525/9000)

Epoch run time: 00:06:27

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

Epoch: 2/10 ---- best so far on epoch 1: acc=50.2778%

DEV accuracy on epoch 2/10 in train step 202 = 75.1444%

Class russia: (3243/4525) -> accuracy: 71.6685%

Class us : (3520/4475) -> accuracy: 78.6592%

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

INFO:root: Best accuracy 75.1444% at epoch 2/10 (6763/9000)

DEV accuracy on epoch 2/10 in train step 402 = 77.7000%

Class russia: (3513/4525) -> accuracy: 77.6354%

Class us : (3480/4475) -> accuracy: 77.7654%

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

INFO:root: Best accuracy 77.7000% at epoch 2/10 (6993/9000)

Epoch run time: 00:06:03

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

Epoch: 3/10 ---- best so far on epoch 2: acc=77.7000%

DEV accuracy on epoch 3/10 in train step 202 = 79.1222%

Class russia: (3545/4525) -> accuracy: 78.3425%

Class us : (3576/4475) -> accuracy: 79.9106%

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

INFO:root: Best accuracy 79.1222% at epoch 3/10 (7121/9000)

DEV accuracy on epoch 3/10 in train step 402 = 80.0000%

Class russia: (3646/4525) -> accuracy: 80.5746%

Class us : (3554/4475) -> accuracy: 79.4190%

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

INFO:root: Best accuracy 80.0000% at epoch 3/10 (7200/9000)

Epoch run time: 00:06:04

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

Epoch: 4/10 ---- best so far on epoch 3: acc=80.0000%

DEV accuracy on epoch 4/10 in train step 202 = 80.6222%

Class russia: (3576/4525) -> accuracy: 79.0276%

Class us : (3680/4475) -> accuracy: 82.2346%

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

INFO:root: Best accuracy 80.6222% at epoch 4/10 (7256/9000)

DEV accuracy on epoch 4/10 in train step 402 = 80.7889%

Class russia: (3644/4525) -> accuracy: 80.5304%

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

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

INFO:root: Best accuracy 80.7889% at epoch 4/10 (7271/9000)

Epoch run time: 00:06:05

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

Epoch: 5/10 ---- best so far on epoch 4: acc=80.7889%

DEV accuracy on epoch 5/10 in train step 202 = 80.8333%

Class russia: (3633/4525) -> accuracy: 80.2873%

Class us : (3642/4475) -> accuracy: 81.3855%

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

INFO:root: Best accuracy 80.8333% at epoch 5/10 (7275/9000)

DEV accuracy on epoch 5/10 in train step 402 = 81.0889%

Class russia: (3612/4525) -> accuracy: 79.8232%

Class us : (3686/4475) -> accuracy: 82.3687%

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

INFO:root: Best accuracy 81.0889% at epoch 5/10 (7298/9000)

Epoch run time: 00:06:01

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

Epoch: 6/10 ---- best so far on epoch 5: acc=81.0889%

DEV accuracy on epoch 6/10 in train step 202 = 80.4889%

Class russia: (3576/4525) -> accuracy: 79.0276%

Class us : (3668/4475) -> accuracy: 81.9665%

DEV accuracy on epoch 6/10 in train step 402 = 80.2000%

Class russia: (3770/4525) -> accuracy: 83.3149%

Class us : (3448/4475) -> accuracy: 77.0503%

Epoch run time: 00:05:55

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

Epoch: 7/10 ---- best so far on epoch 5: acc=81.0889%

DEV accuracy on epoch 7/10 in train step 202 = 79.7000%

Class russia: (3101/4525) -> accuracy: 68.5304%

Class us : (4072/4475) -> accuracy: 90.9944%

DEV accuracy on epoch 7/10 in train step 402 = 80.6222%

Class russia: (3449/4525) -> accuracy: 76.2210%

Class us : (3807/4475) -> accuracy: 85.0726%

Epoch run time: 00:05:56

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

Epoch: 8/10 ---- best so far on epoch 5: acc=81.0889%

DEV accuracy on epoch 8/10 in train step 202 = 80.1444%

Class russia: (3535/4525) -> accuracy: 78.1215%

Class us : (3678/4475) -> accuracy: 82.1899%

DEV accuracy on epoch 8/10 in train step 402 = 80.1333%

Class russia: (3607/4525) -> accuracy: 79.7127%

Class us : (3605/4475) -> accuracy: 80.5587%

Epoch run time: 00:05:55

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

Epoch: 9/10 ---- best so far on epoch 5: acc=81.0889%

DEV accuracy on epoch 9/10 in train step 202 = 80.2333%

Class russia: (3599/4525) -> accuracy: 79.5359%

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

DEV accuracy on epoch 9/10 in train step 402 = 79.8667%

Class russia: (3703/4525) -> accuracy: 81.8343%

Class us : (3485/4475) -> accuracy: 77.8771%

Epoch run time: 00:05:55

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

Epoch: 10/10 ---- best so far on epoch 5: acc=81.0889%

DEV accuracy on epoch 10/10 in train step 202 = 79.5889%

Class russia: (3607/4525) -> accuracy: 79.7127%

Class us : (3556/4475) -> accuracy: 79.4637%

DEV accuracy on epoch 10/10 in train step 402 = 78.6000%

Class russia: (3842/4525) -> accuracy: 84.9061%

Class us : (3232/4475) -> accuracy: 72.2235%

Epoch run time: 00:05:55

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

\*\*\*Training is complete. Best accuracy 81.0889% at epoch 5/10

\*\*\*Testing...

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

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

Accuracy on test set - (8078/10000) -> accuracy: 80.7800%

Class russia: (3926/4979) -> accuracy: 78.8512%

Class us : (4152/5021) -> accuracy: 82.6927%

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.300d.txt

EMB\_DIM 300

EMB\_WORDS\_COUNT 400001

run config:

EPOCHS 10

evaluating on dev data 2 times per epoch

KEEP\_PROB 0.5

BATCH\_SIZE 200

LSTM\_HIDDEN\_UNITS 150

LSTM\_CELL\_TYPE GRU

optimizer is adamOptimizer - learn rate: 0.001

model:

USE\_TMP\_FOLDER True

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

results:

best training acc at epoch=5 is 81.0888888889

testing acc 80.78

Time(HH:MM:SS): 01:02:38

Leaving function \_\_main\_\_