Entering function \_\_main\_\_

Embedding tokens size=400001

File name 5way\_tur\_ger\_rus\_fra\_usa100K\_25-150. Total data size is 500000

Our 5 labels to index dictionary ={u'turkey': 3, u'germany': 1, u'russia': 2, u'us': 4, u'france': 0}

Our 5 index to labels dictionary ={0: u'france', 1: u'germany', 2: u'russia', 3: u'turkey', 4: u'us'}

x\_train: 405000, x\_dev: 45000, x\_test: 50000

y\_train: 405000, y\_dev: 45000, y\_test: 50000

input\_data\_x\_batch shape: (200, 150)

input\_labels\_batch shape: (200, 5)

gru\_forward\_cell units: 100

gru\_backward\_cell units: 100

---vars name and shapes---

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/kernel:0', TensorShape([Dimension(400), Dimension(200)]), 80000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/kernel:0', TensorShape([Dimension(400), Dimension(100)]), 40000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/kernel:0', TensorShape([Dimension(400), Dimension(200)]), 80000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/kernel:0', TensorShape([Dimension(400), Dimension(100)]), 40000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'weight:0', TensorShape([Dimension(200), Dimension(5)]), 1000)

(u'bias:0', TensorShape([Dimension(5)]), 5)

total PARAM 362,205

---done vars---

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

DEV accuracy on epoch 1/10 in train step 1012 = 50.8622%

Class turkey : (5901/9025) -> accuracy: 65.3850%

Class germany: (3701/8906) -> accuracy: 41.5563%

Class russia : (5612/9026) -> accuracy: 62.1759%

Class us : (4129/9085) -> accuracy: 45.4485%

Class france : (3545/8958) -> accuracy: 39.5736%

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

INFO:root: Best accuracy 50.8622% at epoch 1/10 (22888/45000)

DEV accuracy on epoch 1/10 in train step 2022 = 53.3778%

Class turkey : (5480/9025) -> accuracy: 60.7202%

Class germany: (5024/8906) -> accuracy: 56.4114%

Class russia : (5306/9026) -> accuracy: 58.7857%

Class us : (4587/9085) -> accuracy: 50.4898%

Class france : (3623/8958) -> accuracy: 40.4443%

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

INFO:root: Best accuracy 53.3778% at epoch 1/10 (24020/45000)

Epoch run time: 00:27:35

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Epoch: 2/10 ---- best so far on epoch 1: acc=53.3778%

DEV accuracy on epoch 2/10 in train step 1012 = 54.9533%

Class turkey : (6059/9025) -> accuracy: 67.1357%

Class germany: (4269/8906) -> accuracy: 47.9340%

Class russia : (5857/9026) -> accuracy: 64.8903%

Class us : (4760/9085) -> accuracy: 52.3941%

Class france : (3784/8958) -> accuracy: 42.2416%

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

INFO:root: Best accuracy 54.9533% at epoch 2/10 (24729/45000)

DEV accuracy on epoch 2/10 in train step 2022 = 55.5156%

Class turkey : (5658/9025) -> accuracy: 62.6925%

Class germany: (5280/8906) -> accuracy: 59.2859%

Class russia : (5522/9026) -> accuracy: 61.1788%

Class us : (4562/9085) -> accuracy: 50.2146%

Class france : (3960/8958) -> accuracy: 44.2063%

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

INFO:root: Best accuracy 55.5156% at epoch 2/10 (24982/45000)

Epoch run time: 00:27:16

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Epoch: 3/10 ---- best so far on epoch 2: acc=55.5156%

DEV accuracy on epoch 3/10 in train step 1012 = 56.4622%

Class turkey : (6039/9025) -> accuracy: 66.9141%

Class germany: (4638/8906) -> accuracy: 52.0773%

Class russia : (5820/9026) -> accuracy: 64.4804%

Class us : (4880/9085) -> accuracy: 53.7149%

Class france : (4031/8958) -> accuracy: 44.9989%

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

INFO:root: Best accuracy 56.4622% at epoch 3/10 (25408/45000)

DEV accuracy on epoch 4/10 in train step 1012 = 56.6622%

Class turkey : (6195/9025) -> accuracy: 68.6427%

Class germany: (4666/8906) -> accuracy: 52.3916%

Class russia : (5585/9026) -> accuracy: 61.8768%

Class us : (4986/9085) -> accuracy: 54.8817%

Class france : (4066/8958) -> accuracy: 45.3896%

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

INFO:root: Best accuracy 56.6622% at epoch 4/10 (25498/45000)

DEV accuracy on epoch 4/10 in train step 2022 = 56.9333%

Class turkey : (6015/9025) -> accuracy: 66.6482%

Class germany: (5137/8906) -> accuracy: 57.6802%

Class russia : (5693/9026) -> accuracy: 63.0733%

Class us : (4510/9085) -> accuracy: 49.6423%

Class france : (4265/8958) -> accuracy: 47.6111%

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

INFO:root: Best accuracy 56.9333% at epoch 4/10 (25620/45000)

Epoch run time: 00:27:12

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

Epoch: 5/10 ---- best so far on epoch 4: acc=56.9333%

DEV accuracy on epoch 5/10 in train step 1012 = 56.8711%

Class turkey : (6313/9025) -> accuracy: 69.9501%

Class germany: (4506/8906) -> accuracy: 50.5951%

Class russia : (5370/9026) -> accuracy: 59.4948%

Class us : (5037/9085) -> accuracy: 55.4430%

Class france : (4366/8958) -> accuracy: 48.7386%

DEV accuracy on epoch 5/10 in train step 2022 = 56.9578%

Class turkey : (6082/9025) -> accuracy: 67.3906%

Class germany: (5161/8906) -> accuracy: 57.9497%

Class russia : (5675/9026) -> accuracy: 62.8739%

Class us : (4549/9085) -> accuracy: 50.0715%

Class france : (4164/8958) -> accuracy: 46.4836%

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

INFO:root: Best accuracy 56.9578% at epoch 5/10 (25631/45000)

Epoch run time: 00:27:12

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Epoch: 6/10 ---- best so far on epoch 5: acc=56.9578%

DEV accuracy on epoch 6/10 in train step 1012 = 57.0133%

Class turkey : (6269/9025) -> accuracy: 69.4626%

Class germany: (4618/8906) -> accuracy: 51.8527%

Class russia : (5445/9026) -> accuracy: 60.3257%

Class us : (5163/9085) -> accuracy: 56.8299%

Class france : (4161/8958) -> accuracy: 46.4501%

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

INFO:root: Best accuracy 57.0133% at epoch 6/10 (25656/45000)

DEV accuracy on epoch 6/10 in train step 2022 = 57.0978%

Class turkey : (6271/9025) -> accuracy: 69.4848%

Class germany: (4975/8906) -> accuracy: 55.8612%

Class russia : (5702/9026) -> accuracy: 63.1731%

Class us : (4613/9085) -> accuracy: 50.7760%

Class france : (4133/8958) -> accuracy: 46.1375%

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

INFO:root: Best accuracy 57.0978% at epoch 6/10 (25694/45000)

Epoch run time: 00:27:12

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Epoch: 7/10 ---- best so far on epoch 6: acc=57.0978%

DEV accuracy on epoch 7/10 in train step 1012 = 56.8178%

Class turkey : (6263/9025) -> accuracy: 69.3961%

Class germany: (4476/8906) -> accuracy: 50.2583%

Class russia : (5379/9026) -> accuracy: 59.5945%

Class us : (5105/9085) -> accuracy: 56.1915%

Class france : (4345/8958) -> accuracy: 48.5041%

DEV accuracy on epoch 7/10 in train step 2022 = 56.9578%

Class turkey : (6285/9025) -> accuracy: 69.6399%

Class germany: (4941/8906) -> accuracy: 55.4795%

Class russia : (5631/9026) -> accuracy: 62.3864%

Class us : (4653/9085) -> accuracy: 51.2163%

Class france : (4121/8958) -> accuracy: 46.0036%

Epoch run time: 00:27:10

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Epoch: 8/10 ---- best so far on epoch 6: acc=57.0978%

DEV accuracy on epoch 8/10 in train step 1012 = 56.7556%

Class turkey : (6111/9025) -> accuracy: 67.7119%

Class germany: (4425/8906) -> accuracy: 49.6856%

Class russia : (5435/9026) -> accuracy: 60.2149%

Class us : (5264/9085) -> accuracy: 57.9417%

Class france : (4305/8958) -> accuracy: 48.0576%

DEV accuracy on epoch 8/10 in train step 2022 = 56.9111%

Class turkey : (6286/9025) -> accuracy: 69.6510%

Class germany: (5025/8906) -> accuracy: 56.4226%

Class russia : (5665/9026) -> accuracy: 62.7631%

Class us : (4430/9085) -> accuracy: 48.7617%

Class france : (4204/8958) -> accuracy: 46.9301%

Epoch run time: 00:27:09

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Epoch: 9/10 ---- best so far on epoch 6: acc=57.0978%

DEV accuracy on epoch 9/10 in train step 1012 = 56.8956%

Class turkey : (6141/9025) -> accuracy: 68.0443%

Class germany: (4695/8906) -> accuracy: 52.7173%

Class russia : (5439/9026) -> accuracy: 60.2593%

Class us : (5071/9085) -> accuracy: 55.8173%

Class france : (4257/8958) -> accuracy: 47.5218%

DEV accuracy on epoch 9/10 in train step 2022 = 56.7911%

Class turkey : (6226/9025) -> accuracy: 68.9861%

Class germany: (4838/8906) -> accuracy: 54.3229%

Class russia : (5562/9026) -> accuracy: 61.6220%

Class us : (4634/9085) -> accuracy: 51.0072%

Class france : (4296/8958) -> accuracy: 47.9571%

Epoch run time: 00:27:09

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Epoch: 10/10 ---- best so far on epoch 6: acc=57.0978%

DEV accuracy on epoch 10/10 in train step 1012 = 56.5356%

Class turkey : (5963/9025) -> accuracy: 66.0720%

Class germany: (4676/8906) -> accuracy: 52.5039%

Class russia : (5368/9026) -> accuracy: 59.4726%

Class us : (5018/9085) -> accuracy: 55.2339%

Class france : (4416/8958) -> accuracy: 49.2967%

DEV accuracy on epoch 10/10 in train step 2022 = 56.5533%

Class turkey : (6139/9025) -> accuracy: 68.0222%

Class germany: (4520/8906) -> accuracy: 50.7523%

Class russia : (5665/9026) -> accuracy: 62.7631%

Class us : (4838/9085) -> accuracy: 53.2526%

Class france : (4287/8958) -> accuracy: 47.8567%

Epoch run time: 00:27:09

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\*\*\*Training is complete. Best accuracy 57.0978% at epoch 6/10

\*\*\*Testing...

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

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

Accuracy on test set - (28386/50000) -> accuracy: 56.7720%

Class turkey : (6764/9957) -> accuracy: 67.9321%

Class germany: (5440/9905) -> accuracy: 54.9218%

Class russia : (6448/10046) -> accuracy: 64.1848%

Class us : (5074/10019) -> accuracy: 50.6438%

Class france : (4660/10073) -> accuracy: 46.2623%

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

data:

DATA\_FILE\_PATH is ../input/5way\_tur\_ger\_rus\_fra\_usa100K\_25-150.txt

MINIMUM\_ROW\_LENGTH is 25

MAXIMUM\_ROW\_LENGTH is 150

COUNT\_WORD is 20

lines\_per\_class is 100000

number of classes is 5

Total data size is 500000

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 100

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=6 is 57.0978

testing acc 56.7720

Time(HH:MM:SS): 04:35:32

Leaving function \_\_main\_\_