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/fw/multi\_rnn\_cell/cell\_2/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_2/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_2/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_2/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_3/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

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(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_3/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_3/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

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

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(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)

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(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_2/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

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(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_2/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_3/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_3/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_3/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_3/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_4/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_4/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_4/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_4/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 724,005

---done vars---

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

DEV accuracy on epoch 1/10 in train step 1012 = 50.6044%

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

Class germany: (3780/8906) -> accuracy: 42.4433%

Class russia : (5667/9026) -> accuracy: 62.7853%

Class us : (4136/9085) -> accuracy: 45.5256%

Class france : (3048/8958) -> accuracy: 34.0255%

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

INFO:root: Best accuracy 50.6044% at epoch 1/10 (22772/45000)

DEV accuracy on epoch 1/10 in train step 2022 = 52.8911%

Class turkey : (5467/9025) -> accuracy: 60.5762%

Class germany: (5004/8906) -> accuracy: 56.1868%

Class russia : (5092/9026) -> accuracy: 56.4148%

Class us : (4078/9085) -> accuracy: 44.8872%

Class france : (4160/8958) -> accuracy: 46.4389%

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

INFO:root: Best accuracy 52.8911% at epoch 1/10 (23801/45000)

Epoch run time: 01:00:17

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Epoch: 2/10 ---- best so far on epoch 1: acc=52.8911%

DEV accuracy on epoch 2/10 in train step 1012 = 54.5889%

Class turkey : (6292/9025) -> accuracy: 69.7175%

Class germany: (4333/8906) -> accuracy: 48.6526%

Class russia : (5411/9026) -> accuracy: 59.9490%

Class us : (4924/9085) -> accuracy: 54.1992%

Class france : (3605/8958) -> accuracy: 40.2434%

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

INFO:root: Best accuracy 54.5889% at epoch 2/10 (24565/45000)

DEV accuracy on epoch 2/10 in train step 2022 = 55.0422%

Class turkey : (5553/9025) -> accuracy: 61.5291%

Class germany: (4994/8906) -> accuracy: 56.0746%

Class russia : (5182/9026) -> accuracy: 57.4119%

Class us : (4427/9085) -> accuracy: 48.7287%

Class france : (4613/8958) -> accuracy: 51.4959%

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

INFO:root: Best accuracy 55.0422% at epoch 2/10 (24769/45000)

Epoch run time: 01:00:02

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Epoch: 3/10 ---- best so far on epoch 2: acc=55.0422%

DEV accuracy on epoch 3/10 in train step 1012 = 55.9089%

Class turkey : (6093/9025) -> accuracy: 67.5125%

Class germany: (4495/8906) -> accuracy: 50.4716%

Class russia : (5726/9026) -> accuracy: 63.4390%

Class us : (4818/9085) -> accuracy: 53.0325%

Class france : (4027/8958) -> accuracy: 44.9542%

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

INFO:root: Best accuracy 55.9089% at epoch 3/10 (25159/45000)

DEV accuracy on epoch 3/10 in train step 2022 = 55.8133%

Class turkey : (5390/9025) -> accuracy: 59.7230%

Class germany: (4862/8906) -> accuracy: 54.5924%

Class russia : (5255/9026) -> accuracy: 58.2207%

Class us : (4793/9085) -> accuracy: 52.7573%

Class france : (4816/8958) -> accuracy: 53.7620%

Epoch run time: 01:00:00

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Epoch: 4/10 ---- best so far on epoch 3: acc=55.9089%

DEV accuracy on epoch 4/10 in train step 1012 = 56.3956%

Class turkey : (6077/9025) -> accuracy: 67.3352%

Class germany: (4416/8906) -> accuracy: 49.5845%

Class russia : (5814/9026) -> accuracy: 64.4139%

Class us : (4893/9085) -> accuracy: 53.8580%

Class france : (4178/8958) -> accuracy: 46.6399%

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

INFO:root: Best accuracy 56.3956% at epoch 4/10 (25378/45000)

DEV accuracy on epoch 4/10 in train step 2022 = 56.5156%

Class turkey : (5476/9025) -> accuracy: 60.6759%

Class germany: (4976/8906) -> accuracy: 55.8724%

Class russia : (5412/9026) -> accuracy: 59.9601%

Class us : (4905/9085) -> accuracy: 53.9901%

Class france : (4663/8958) -> accuracy: 52.0540%

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

INFO:root: Best accuracy 56.5156% at epoch 4/10 (25432/45000)

Epoch run time: 01:00:04

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Epoch: 5/10 ---- best so far on epoch 4: acc=56.5156%

DEV accuracy on epoch 5/10 in train step 1012 = 56.5844%

Class turkey : (6129/9025) -> accuracy: 67.9114%

Class germany: (4577/8906) -> accuracy: 51.3923%

Class russia : (5748/9026) -> accuracy: 63.6827%

Class us : (4843/9085) -> accuracy: 53.3076%

Class france : (4166/8958) -> accuracy: 46.5059%

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

INFO:root: Best accuracy 56.5844% at epoch 5/10 (25463/45000)

DEV accuracy on epoch 5/10 in train step 2022 = 56.4578%

Class turkey : (5423/9025) -> accuracy: 60.0886%

Class germany: (4918/8906) -> accuracy: 55.2212%

Class russia : (5726/9026) -> accuracy: 63.4390%

Class us : (4542/9085) -> accuracy: 49.9945%

Class france : (4797/8958) -> accuracy: 53.5499%

Epoch run time: 01:00:02

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Epoch: 6/10 ---- best so far on epoch 5: acc=56.5844%

DEV accuracy on epoch 6/10 in train step 1012 = 56.6622%

Class turkey : (5996/9025) -> accuracy: 66.4377%

Class germany: (4643/8906) -> accuracy: 52.1334%

Class russia : (5792/9026) -> accuracy: 64.1702%

Class us : (4818/9085) -> accuracy: 53.0325%

Class france : (4249/8958) -> accuracy: 47.4325%

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

INFO:root: Best accuracy 56.6622% at epoch 6/10 (25498/45000)

DEV accuracy on epoch 6/10 in train step 2022 = 56.7622%

Class turkey : (5672/9025) -> accuracy: 62.8476%

Class germany: (4837/8906) -> accuracy: 54.3117%

Class russia : (5778/9026) -> accuracy: 64.0151%

Class us : (4687/9085) -> accuracy: 51.5905%

Class france : (4569/8958) -> accuracy: 51.0047%

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

INFO:root: Best accuracy 56.7622% at epoch 6/10 (25543/45000)

Epoch run time: 01:00:02

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Epoch: 7/10 ---- best so far on epoch 6: acc=56.7622%

DEV accuracy on epoch 7/10 in train step 1012 = 56.5378%

Class turkey : (6245/9025) -> accuracy: 69.1967%

Class germany: (4619/8906) -> accuracy: 51.8639%

Class russia : (5356/9026) -> accuracy: 59.3397%

Class us : (4984/9085) -> accuracy: 54.8597%

Class france : (4238/8958) -> accuracy: 47.3097%

DEV accuracy on epoch 7/10 in train step 2022 = 56.7444%

Class turkey : (5690/9025) -> accuracy: 63.0471%

Class germany: (4671/8906) -> accuracy: 52.4478%

Class russia : (5848/9026) -> accuracy: 64.7906%

Class us : (4847/9085) -> accuracy: 53.3517%

Class france : (4479/8958) -> accuracy: 50.0000%

Epoch run time: 00:59:58

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Epoch: 8/10 ---- best so far on epoch 6: acc=56.7622%

DEV accuracy on epoch 8/10 in train step 1012 = 56.1156%

Class turkey : (5975/9025) -> accuracy: 66.2050%

Class germany: (4526/8906) -> accuracy: 50.8197%

Class russia : (5400/9026) -> accuracy: 59.8272%

Class us : (5178/9085) -> accuracy: 56.9950%

Class france : (4173/8958) -> accuracy: 46.5841%

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

Accuracy on test set - (28373/50000) -> accuracy: 56.7460%

Class turkey : (6215/9957) -> accuracy: 62.4184%

Class germany: (5314/9905) -> accuracy: 53.6497%

Class russia : (6584/10046) -> accuracy: 65.5385%

Class us : (5152/10019) -> accuracy: 51.4223%

Class france : (5108/10073) -> accuracy: 50.7098%

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=0 is 0

testing acc 56.746

Time(HH:MM:SS): 00:04:36

Leaving function \_\_main\_\_