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)

data(after embedding) shape: (200, 150, 300)

gru\_forward\_cell units: 100

gru\_forward\_cell2 units: 100

multi\_forward\_cell: 2 cells

gru\_backward\_cell units: 100

gru\_backward\_cell2 units: 100

multi\_backward\_cell: 2 cells

---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 = 50.4978%

Class turkey : (6159/9025) -> accuracy: 68.2438%

Class germany: (3877/8906) -> accuracy: 43.5325%

Class russia : (5624/9026) -> accuracy: 62.3089%

Class us : (3953/9085) -> accuracy: 43.5113%

Class france : (3111/8958) -> accuracy: 34.7287%

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

INFO:root: Best accuracy 50.4978% at epoch 1/10 (22724/45000)

DEV accuracy on epoch 1/10 in train step 2022 = 52.9689%

Class turkey : (5293/9025) -> accuracy: 58.6482%

Class germany: (5264/8906) -> accuracy: 59.1062%

Class russia : (5155/9026) -> accuracy: 57.1128%

Class us : (4468/9085) -> accuracy: 49.1800%

Class france : (3656/8958) -> accuracy: 40.8127%

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

INFO:root: Best accuracy 52.9689% at epoch 1/10 (23836/45000)

Epoch run time: 00:28:49

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Epoch: 2/10 ---- best so far on epoch 1: acc=52.9689%

DEV accuracy on epoch 2/10 in train step 1012 = 54.8467%

Class turkey : (6074/9025) -> accuracy: 67.3019%

Class germany: (4663/8906) -> accuracy: 52.3580%

Class russia : (5545/9026) -> accuracy: 61.4336%

Class us : (4415/9085) -> accuracy: 48.5966%

Class france : (3984/8958) -> accuracy: 44.4742%

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

INFO:root: Best accuracy 54.8467% at epoch 2/10 (24681/45000)

DEV accuracy on epoch 2/10 in train step 2022 = 55.5711%

Class turkey : (5465/9025) -> accuracy: 60.5540%

Class germany: (5184/8906) -> accuracy: 58.2079%

Class russia : (5634/9026) -> accuracy: 62.4197%

Class us : (4820/9085) -> accuracy: 53.0545%

Class france : (3904/8958) -> accuracy: 43.5812%

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

INFO:root: Best accuracy 55.5711% at epoch 2/10 (25007/45000)

Epoch run time: 00:28:25

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Epoch: 3/10 ---- best so far on epoch 2: acc=55.5711%

DEV accuracy on epoch 3/10 in train step 1012 = 56.2289%

Class turkey : (5932/9025) -> accuracy: 65.7285%

Class germany: (4803/8906) -> accuracy: 53.9299%

Class russia : (5957/9026) -> accuracy: 65.9982%

Class us : (4513/9085) -> accuracy: 49.6753%

Class france : (4098/8958) -> accuracy: 45.7468%

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

INFO:root: Best accuracy 56.2289% at epoch 3/10 (25303/45000)

DEV accuracy on epoch 3/10 in train step 2022 = 56.6156%

Class turkey : (5905/9025) -> accuracy: 65.4294%

Class germany: (5247/8906) -> accuracy: 58.9153%

Class russia : (5651/9026) -> accuracy: 62.6080%

Class us : (4715/9085) -> accuracy: 51.8987%

Class france : (3959/8958) -> accuracy: 44.1951%

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

INFO:root: Best accuracy 56.6156% at epoch 3/10 (25477/45000)

Epoch run time: 00:28:25

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Epoch: 4/10 ---- best so far on epoch 3: acc=56.6156%

DEV accuracy on epoch 4/10 in train step 1012 = 56.7400%

Class turkey : (5879/9025) -> accuracy: 65.1413%

Class germany: (4911/8906) -> accuracy: 55.1426%

Class russia : (5804/9026) -> accuracy: 64.3031%

Class us : (4620/9085) -> accuracy: 50.8531%

Class france : (4319/8958) -> accuracy: 48.2139%

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

INFO:root: Best accuracy 56.7400% at epoch 4/10 (25533/45000)

DEV accuracy on epoch 4/10 in train step 2022 = 57.1467%

Class turkey : (5882/9025) -> accuracy: 65.1745%

Class germany: (4781/8906) -> accuracy: 53.6829%

Class russia : (5882/9026) -> accuracy: 65.1673%

Class us : (4864/9085) -> accuracy: 53.5388%

Class france : (4307/8958) -> accuracy: 48.0799%

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

INFO:root: Best accuracy 57.1467% at epoch 4/10 (25716/45000)

Epoch run time: 00:28:23

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Epoch: 5/10 ---- best so far on epoch 4: acc=57.1467%

DEV accuracy on epoch 5/10 in train step 1012 = 57.0289%

Class turkey : (5917/9025) -> accuracy: 65.5623%

Class germany: (4910/8906) -> accuracy: 55.1314%

Class russia : (5844/9026) -> accuracy: 64.7463%

Class us : (4765/9085) -> accuracy: 52.4491%

Class france : (4227/8958) -> accuracy: 47.1869%

DEV accuracy on epoch 5/10 in train step 2022 = 57.3067%

Class turkey : (5909/9025) -> accuracy: 65.4737%

Class germany: (4955/8906) -> accuracy: 55.6366%

Class russia : (5833/9026) -> accuracy: 64.6244%

Class us : (4627/9085) -> accuracy: 50.9301%

Class france : (4464/8958) -> accuracy: 49.8326%

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

INFO:root: Best accuracy 57.3067% at epoch 5/10 (25788/45000)

Epoch run time: 00:28:22

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Epoch: 6/10 ---- best so far on epoch 5: acc=57.3067%

DEV accuracy on epoch 6/10 in train step 1012 = 57.1622%

Class turkey : (5840/9025) -> accuracy: 64.7091%

Class germany: (4795/8906) -> accuracy: 53.8401%

Class russia : (5926/9026) -> accuracy: 65.6548%

Class us : (4731/9085) -> accuracy: 52.0748%

Class france : (4431/8958) -> accuracy: 49.4642%

DEV accuracy on epoch 6/10 in train step 2022 = 57.3289%

Class turkey : (5942/9025) -> accuracy: 65.8393%

Class germany: (4960/8906) -> accuracy: 55.6928%

Class russia : (5840/9026) -> accuracy: 64.7020%

Class us : (4579/9085) -> accuracy: 50.4018%

Class france : (4477/8958) -> accuracy: 49.9777%

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

INFO:root: Best accuracy 57.3289% at epoch 6/10 (25798/45000)

Epoch run time: 00:28:22

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Epoch: 7/10 ---- best so far on epoch 6: acc=57.3289%

DEV accuracy on epoch 7/10 in train step 1012 = 57.0378%

Class turkey : (5843/9025) -> accuracy: 64.7424%

Class germany: (4656/8906) -> accuracy: 52.2794%

Class russia : (5755/9026) -> accuracy: 63.7602%

Class us : (4685/9085) -> accuracy: 51.5685%

Class france : (4728/8958) -> accuracy: 52.7796%

DEV accuracy on epoch 7/10 in train step 2022 = 57.3067%

Class turkey : (5955/9025) -> accuracy: 65.9834%

Class germany: (4923/8906) -> accuracy: 55.2773%

Class russia : (5856/9026) -> accuracy: 64.8792%

Class us : (4591/9085) -> accuracy: 50.5338%

Class france : (4463/8958) -> accuracy: 49.8214%

Epoch run time: 00:28:20

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Epoch: 8/10 ---- best so far on epoch 6: acc=57.3289%

DEV accuracy on epoch 8/10 in train step 1012 = 56.8933%

Class turkey : (5680/9025) -> accuracy: 62.9363%

Class germany: (4762/8906) -> accuracy: 53.4696%

Class russia : (5783/9026) -> accuracy: 64.0705%

Class us : (5006/9085) -> accuracy: 55.1018%

Class france : (4371/8958) -> accuracy: 48.7944%

DEV accuracy on epoch 8/10 in train step 2022 = 57.1156%

Class turkey : (5933/9025) -> accuracy: 65.7396%

Class germany: (5013/8906) -> accuracy: 56.2879%

Class russia : (5669/9026) -> accuracy: 62.8074%

Class us : (4622/9085) -> accuracy: 50.8751%

Class france : (4465/8958) -> accuracy: 49.8437%

Epoch run time: 00:28:20

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Epoch: 9/10 ---- best so far on epoch 6: acc=57.3289%

DEV accuracy on epoch 9/10 in train step 1012 = 56.7867%

Class turkey : (5930/9025) -> accuracy: 65.7064%

Class germany: (4785/8906) -> accuracy: 53.7278%

Class russia : (5358/9026) -> accuracy: 59.3618%

Class us : (5045/9085) -> accuracy: 55.5311%

Class france : (4436/8958) -> accuracy: 49.5200%

DEV accuracy on epoch 9/10 in train step 2022 = 56.8467%

Class turkey : (5885/9025) -> accuracy: 65.2078%

Class germany: (4978/8906) -> accuracy: 55.8949%

Class russia : (5542/9026) -> accuracy: 61.4004%

Class us : (4682/9085) -> accuracy: 51.5355%

Class france : (4494/8958) -> accuracy: 50.1674%

Epoch run time: 00:28:20

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Epoch: 10/10 ---- best so far on epoch 6: acc=57.3289%

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

Class turkey : (5840/9025) -> accuracy: 64.7091%

Class germany: (4859/8906) -> accuracy: 54.5587%

Class russia : (5251/9026) -> accuracy: 58.1764%

Class us : (4856/9085) -> accuracy: 53.4507%

Class france : (4572/8958) -> accuracy: 51.0382%

DEV accuracy on epoch 10/10 in train step 2022 = 56.8533%

Class turkey : (5594/9025) -> accuracy: 61.9834%

Class germany: (4944/8906) -> accuracy: 55.5131%

Class russia : (5715/9026) -> accuracy: 63.3171%

Class us : (4831/9085) -> accuracy: 53.1756%

Class france : (4500/8958) -> accuracy: 50.2344%

Epoch run time: 00:28:19

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\*\*\*Training is complete. Best accuracy 57.3289% 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 - (28492/50000) -> accuracy: 56.9840%

Class turkey : (6418/9957) -> accuracy: 64.4572%

Class germany: (5537/9905) -> accuracy: 55.9011%

Class russia : (6589/10046) -> accuracy: 65.5883%

Class us : (4983/10019) -> accuracy: 49.7355%

Class france : (4965/10073) -> accuracy: 49.2902%

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 57.3289

testing acc 56.9840

Time(HH:MM:SS): 04:47:32

Leaving function \_\_main\_\_