Entering function \_\_main\_\_

Embedding tokens size=400001

File name 5way\_tur\_ger\_rus\_fra\_usa25-150. Total data size is 250000

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: 202500, x\_dev: 22500, x\_test: 25000

y\_train: 202500, y\_dev: 22500, y\_test: 25000

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(150), Dimension(200)]), 30000)

(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(150), Dimension(100)]), 15000)

(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/bw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/kernel:0', TensorShape([Dimension(150), Dimension(200)]), 30000)

(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(150), Dimension(100)]), 15000)

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

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

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

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_2/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 332,805

---done vars---

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

DEV accuracy on epoch 1/20 in train step 506 = 37.7857%

Class turkey : (1209/4422) -> accuracy: 27.3406%

Class germany: (640/4405) -> accuracy: 14.5289%

Class russia : (2844/4506) -> accuracy: 63.1158%

Class us : (3023/4495) -> accuracy: 67.2525%

Class france : (748/4572) -> accuracy: 16.3605%

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

INFO:root: Best accuracy 37.7857% at epoch 1/20 (8464/22400)

DEV accuracy on epoch 1/20 in train step 1009 = 47.7232%

Class turkey : (2188/4422) -> accuracy: 49.4799%

Class germany: (1699/4405) -> accuracy: 38.5698%

Class russia : (3098/4506) -> accuracy: 68.7528%

Class us : (2449/4495) -> accuracy: 54.4828%

Class france : (1256/4572) -> accuracy: 27.4716%

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

INFO:root: Best accuracy 47.7232% at epoch 1/20 (10690/22400)

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Epoch: 2/20 ---- best so far on epoch 1: acc=47.7232%

DEV accuracy on epoch 2/20 in train step 506 = 50.2902%

Class turkey : (3143/4422) -> accuracy: 71.0764%

Class germany: (1696/4405) -> accuracy: 38.5017%

Class russia : (2654/4506) -> accuracy: 58.8992%

Class us : (1798/4495) -> accuracy: 40.0000%

Class france : (1974/4572) -> accuracy: 43.1759%

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

INFO:root: Best accuracy 50.2902% at epoch 2/20 (11265/22400)

DEV accuracy on epoch 2/20 in train step 1009 = 51.1205%

Class turkey : (2467/4422) -> accuracy: 55.7892%

Class germany: (1536/4405) -> accuracy: 34.8695%

Class russia : (2937/4506) -> accuracy: 65.1798%

Class us : (2768/4495) -> accuracy: 61.5795%

Class france : (1743/4572) -> accuracy: 38.1234%

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

INFO:root: Best accuracy 51.1205% at epoch 2/20 (11451/22400)

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Epoch: 3/20 ---- best so far on epoch 2: acc=51.1205%

DEV accuracy on epoch 3/20 in train step 506 = 51.4866%

Class turkey : (3247/4422) -> accuracy: 73.4283%

Class germany: (1614/4405) -> accuracy: 36.6402%

Class russia : (2534/4506) -> accuracy: 56.2361%

Class us : (2328/4495) -> accuracy: 51.7909%

Class france : (1810/4572) -> accuracy: 39.5888%

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

INFO:root: Best accuracy 51.4866% at epoch 3/20 (11533/22400)

DEV accuracy on epoch 3/20 in train step 1009 = 52.5580%

Class turkey : (2564/4422) -> accuracy: 57.9828%

Class germany: (1847/4405) -> accuracy: 41.9296%

Class russia : (2987/4506) -> accuracy: 66.2894%

Class us : (2639/4495) -> accuracy: 58.7097%

Class france : (1736/4572) -> accuracy: 37.9703%

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

INFO:root: Best accuracy 52.5580% at epoch 3/20 (11773/22400)

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Epoch: 4/20 ---- best so far on epoch 3: acc=52.5580%

DEV accuracy on epoch 4/20 in train step 506 = 52.3750%

Class turkey : (3163/4422) -> accuracy: 71.5287%

Class germany: (1491/4405) -> accuracy: 33.8479%

Class russia : (2622/4506) -> accuracy: 58.1891%

Class us : (2518/4495) -> accuracy: 56.0178%

Class france : (1938/4572) -> accuracy: 42.3885%

DEV accuracy on epoch 4/20 in train step 1009 = 53.4420%

Class turkey : (2655/4422) -> accuracy: 60.0407%

Class germany: (1873/4405) -> accuracy: 42.5199%

Class russia : (2953/4506) -> accuracy: 65.5348%

Class us : (2569/4495) -> accuracy: 57.1524%

Class france : (1921/4572) -> accuracy: 42.0166%

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

INFO:root: Best accuracy 53.4420% at epoch 4/20 (11971/22400)

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