Competition Overview and Postmortem

Sunday, September 13, 2020   6:36 PM

- [NOTE 9/13/20: To be addended after competition winners publish their code and I can review it. At this point I've only seen the one solution from the end of competition webinar from leading teams.]

- This was a dumb competition. The competition organizers made it too easy. 6 teams had an f1=0.999 and my f1=0.997 had me tied for 11th place! Furthermore, I literally just spent a few minutes connecting fastai's factory text methods to achieve that result, it took basically no effort.
- The task was to classify whether some text was generated by GPT-2 or written by an actual (news?) source. https://www.aicrowd.com/challenges/ai-for-good-ai-blitz-3/problems/fnews
- I'm curious to see what exactly the other teams did to get that extra 0.002 of f1. In the end I just wound up stacking two cv folds of one single model pretrained on the same corpus. If I had had more time I would have tried stacking or boosting more diverse models and I suspect that would have easily pushed me to the 0.999 f1 score.

Model Overview
- Literally all I did for this competition was to do transfer learning with fastai AWD_LSTM (https://docs.fast.ai/text.models.awdlstm) transfer learning
- The training loop is

```
1  models=[AWD_LSTM,AWD_QRNN]
2
3  for model in models:
4      cvdict=trainvaldfs(combdf, num_folds=3, val_pct=0.2)
5      for cvfold in range(3):
6          print('-------')
7          print(cvfold)
8          print('-------')
9
10         dls=TextDataLoaders.from_df(cvdict[cvfold], text_col='text', label_col='label', valid_col='isval',
11                                     y_block=CategoryBlock, bs=64)
12
13         learn=text_classifier_learner(dls, model, metrics=[accuracy, F1Score()])
14
15         learn.fine_tune(base_lr=1e-2, freeze_epochs=3, epochs=5)
16
17
18         datestr=datetime.datetime.now(pytz.timezone('US/Eastern')).strftime("%y%m%d_%H%M")
19         learn.export(mount_path+model_path+datestr+'_'+str(model).split('.')[-1][:-2]+'_cv'+str(cvfold)+'.pkl')
```

  - NOTE: at the competition time the AWD_QRNN didn't have pretrained weights, so I didn't use it. Also because the model was fairly slow to train and I was doing so many competitions I only did two cv folds

-
  -

Postmortem
- As I said, this was a dumb competition. With more time I'm sure I could have made up that extra 0.002 on the f1 score.
  -