speech2signs NMT

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Contents

1 Requirements

- python 3.5+
- pytorch 0.2.0
- tqdm
- numpy
- Some Moses tools: (already in the repository)
  - tokenizer.perl
  - multi-bleu.perl

2 Usage

There are two types of .sh files. The ones that work with:

- a big portion of the database for the validation and test

- a smaller and efficient portion of the database as validation and test. The "0.045" files.

The best results were given with the second kind, so the next commands will use just these files.

2.1 Step 1. Pre-process the data

```
./prepro_0.045.sh

## That is the same as:
# for l in en asl; do for f in data/ASLG-PC12/*.$l; do if [[ "$f" != *"test"* ]]; then sed -i "$ d" $f; fi;  done; done
# for l in en asl; do for f in data/ASLG-PC12/*.$l; do perl tokenizer.perl -a -no-escape -l $l -q  < $f > $f.atok; done; done
# srun -c 1 --mem 8G --gres=gpu:1,gmem:12G python preprocess.py -train_src data/ASLG-PC12/ENG-ASL_Train_0.046.en.atok -train_tgt data/ASLG-PC12/ENG-ASL_Train_0.046.asl.atok -valid_src data/ASLG-PC12/ENG-ASL_Dev_0.046.en.atok -valid_tgt data/ASLG-PC12/ENG-ASL_Dev_0.046.asl.atok -save_data data/ASLG-PC12/aslg-pc12_0.046.atok.low.pt
```

2.2 Step 2. Train the model

```
./train_0.045.sh

## That is the same as:
# srun -c 1 --mem 8G --gres=gpu:1,gmem:12G python train.py -data data/ASLG-PC12/aslg-pc12_0.046.atok.low.pt -epoch 50 -save_model weights/aslg-pc12_0.046_50epochs.trained -save_mode best -proj_share_weight
```

2.3 Step 3. Test the model / Translate

```
./test_0.045.sh

## That is the same as
# srun -c 1 --mem 8G --gres=gpu:1,gmem:12G python translate.py -model weights/aslg-pc12_0.046.trained.chkpt -vocab data/ASLG-PC12/aslg-pc12_0.046.atok.low.pt -src data/ASLG-PC12/ENG-ASL_test_0.046.en.atok
```