

Source Code Description

##Following is the structure and description of our files:

- **SF-ID-network:** It consists of the source code and dataset in the experiments.
 - **train.py:** The code that is used to train the model containing SF-ID network
 - **train_ID_only.py:** The code that is used to train the train only containing SF subnet
 - **train_SF_only.py:** The code that is used to train the train only containing ID subnet
 - **utils.py:** It contains some functions relevant with data processing and the evaluation of F1 score in slot-filling task
 - **data:** It involves the data used in the experiments
 - **atis:** This file is about atis dataset, including train/valid/test set.
 - **snips:** This file is about snips dataset, including train/valid/test set.

Environment:

tensorflow 1.11.0

python 3.5.2

Training parameters:

- dataset:** It depends on which dataset is used in the experiment, atis or snips
- priority_order:** It depends on the execution order of the two subnets, slot-first or intent-first
- use-crf:** It depends on whether CRF layer is used, it belongs to boolean type. When it is set as True, CRF layer is used.
- iteration number:** It depends on the iteration number used in iteration mechanism.

A command example:

```
python train.py --dataset=snips --priority_order=intent_first --use_crf=False --iteration_num=3
```