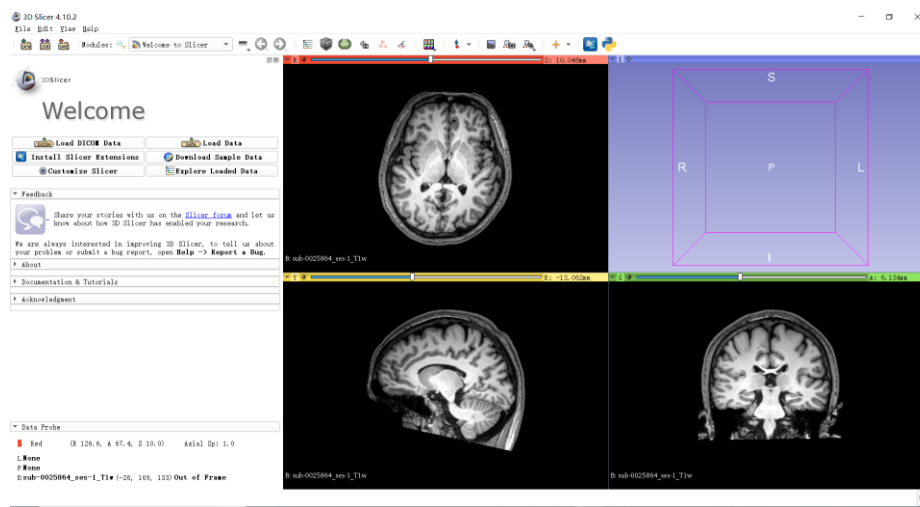


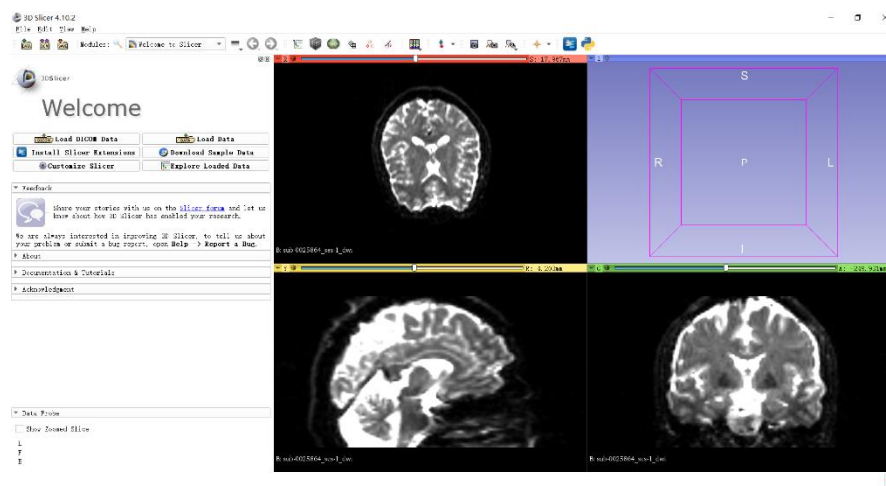
We can run the pipeline like this

```
cd /home/workspace/chuankailuo/program/Deep_MRI_brain_extraction/  
THEANO_FLAGS="floatX=float32,device=cuda1,force_device=True,mode=FAST_RUN,lib.cnmem=  
1" python deep3Dpredict.py -n OASIS_ISBR_LPBA40__trained_CNN.save -data  
/home/workspace/chuankailuo/program/skullstrip/BNU1/sub-0025864/ses-1/anat/sub-  
0025864_ses-1_T1w.nii.gz -o  
/home/workspace/chuankailuo/program/Deep_MRI_brain_extraction/output/ -gridsize 16
```

the input data of '-anat-nii.gz' file can be transform to a 144*256*256 numpy array



and the dwi image is 4D



```

(theano) chuankailuo@yclab:~/program/Deep_MRI_brain_extraction$ THEANO_FLAGS="floatX=float32,device=cuda1,force_device=True,mode=FAST_RUN,lib.cnmem=1" python deep3dpredict.py -n OASIS_ISBR_LPBA40__trained_CNN.save -data /home/workspace/chuankailuo/program/skullstrip/BNU1/sub-0025864/ses-1/anat/sub-0025864_ses-1_T1w.nii.gz -o /home/workspace/chuankailuo/program/Deep_MRI_brain_extraction/output/ -gridsize 16
/home/workspace/chuankailuo/anaconda3/envs/theano/lib/python2.7/site-packages/theano/configdefaults.py:1952: UserWarning: Theano does not recognise this flag: lib.cnmem
  warnings.warn('Theano does not recognise this flag: {0}'.format(key))
Can not use cuDNN on context None: cannot compile with cuDNN. We got this error:
/tmp/try_flags_iYQ0Pf.c:4:10: fatal error: cudnn.h: No such file or directory
#include <cudnn.h>
         ^~~~~~
compilation terminated.

Mapped name None to device cuda1: GeForce GTX 1080 Ti (0000:05:00.0)
using model-parameters: OASIS_ISBR_LPBA40__trained_CNN.save
loading...
Loaded... 100.0 % (144, 1, 256, 256) ('/home/workspace/chuankailuo/program/skullstrip/BNU1/sub-0025864/ses-1/anat/sub-0025864_ses-1_T1w.nii.gz', None)
Total n. of examples: 1 images/volumes
Training on 0 images/volumes
Testing on 1 images/volumes
Building CNN...
Compiling Output Functions
TotalForwardPassCost = 10^( 10.145400591538131 ) = 13976569600
done: Build3D()
compiling output function
-----
@ 1 of max. 1
Predicting data of shape: (144, 256, 256, 1)
COMPLETION = 0.0 %
COMPLETION = 20.0 %
COMPLETION = 40.0 %
COMPLETION = 60.0 %
COMPLETION = 80.0 %
File saved as: /home/workspace/chuankailuo/program/Deep_MRI_brain_extraction/output/prediction_sub-0025864_ses-1_T1w.nii_test
timings (len 1 ) 5890.2900469999995 +- 0.0
Predicted all in 5912.13927 seconds

```

the out put data can also be transform to a 144*256*256 numpy array

