가상환경 설정 for Inference (detail)

태그

1️⃣ CMake 사용자 수준 설치

① 설치 확인

```
cmake --version
```

```
j-i10c109@jupyter02:~$ source activate vitskss
(vitskss) j-i10c109@jupyter02:~$ cmake --version

Command 'cmake' not found, but can be installed with:

snap install cmake  # version 3.28.3, or
apt  install cmake  # version 3.16.3-1ubuntu1.20.04.1

See 'snap info cmake' for additional versions.
```

② Download CMake : `cmake-3.28.3.tar.gz`

Download CMake

You can either download binaries or source code archives for the latest stable or previous release or access the current development (aka nightly) distribution through Git. This software may not be exported in violation of any U.S. export laws or regulations. For more information regarding Export

https://cmake.org/download/

③ 압축 해제

```
tar -xzvf cmake-3.28.3.tar.gz
```

- 옵션

`-x`	압축 해제
`-z`	gzip으로 압축되었다는 것을 나타냄
`-v`	압축 해제 과정을 자세히 표시
`-f`	파일 이름을 나타냄

④ 빌드 및 설치

```
cd cmake-3.28.3
```

```
./bootstrap --prefix=$HOME/.local
```

```
make
```

```
make install
```

```
export PATH="$HOME/.local/bin:$PATH"
```

⑤ 설치 확인

```
cmake --version
```

```
(fodong_espnet) j-i10c109@jupyter02:~$ cmake --version
cmake version 3.28.3

CMake suite maintained and supported by Kitware (kitware.com/cmake).
```

2️⃣ SoX 사용자 수준 설치

① 설치 확인

```
sox --version
```

② Download SoX : `14.4.2`

```
wget https://downloads.sourceforge.net/project/sox/sox/14.4.2
```

③ 압축 해제

```
tar -xzvf sox-14.4.2.tar.gz
```

④ 빌드 및 설치

```
cd sox-14-4-2
```

```
./configure --prefix=$HOME/.local
```

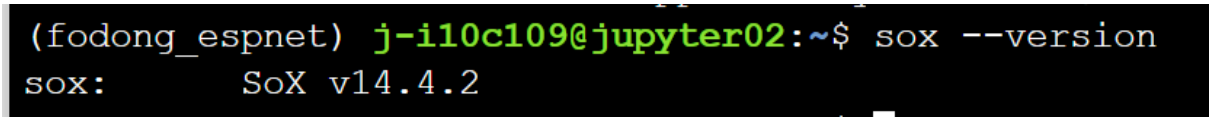
```
make
```

```
make install
```

```
export PATH="$HOME/.local/bin:$PATH"
```

⑤ 설치 확인

```
sox --version
```



3️⃣ ESPnet2 설치

① git clone ESPnet

```
git clone https://github.com/espnet/espnet;cd espnet/tools
```

② 가상환경 설정

> setup_anaconda.sh 스크립트 실행

```
./setup_anaconda.sh /opt/tljh/user fodong_espnet 3.8
```

```
conda info --envs
```

```
source activate fodong_espnet
```

③ 빌드 및 설치

```
make
```

④ 설치 확인

CL

```
conda list espnet
```

```
(fodong_espnet) j-i10c109@jupyter02:~/espnet/tools$ conda list espnet
# packages in environment at /home/j-i10c109/.conda/envs/fodong_espnet:
#
# Name                    Version                   Build  Channel
espnet                    202402                    dev_0    <develop>
espnet-model-zoo          0.1.7                    pypi_0    pypi
espnet-tts-frontend       0.0.3                    pypi_0    pypi
```

python

```
python
```

```
import espnet
```

```
import espnet2
```

```
from espnet2.bin.tts_inference import Text2Speech
```

```
(fodong_espnet) j-i10c109@jupyter02:~/espnet/tools$ python
Python 3.8.18 | packaged by conda-forge | (default, Dec 23 2023, 17:21:28)
[GCC 12.3.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> import espnet
>>> import espnet2
>>> from espnet2.bin.tts_inference import Text2Speech
/home/j-i10c109/.conda/envs/fodong_espnet/lib/python3.8/site-packages/torch/cuda/__
init__.py:138: UserWarning: CUDA initialization: The NVIDIA driver on your system i
s too old (found version 11070). Please update your GPU driver by downloading and i
nstalling a new version from the URL: http://www.nvidia.com/Download/index.aspx Alt
ernatively, go to: https://pytorch.org to install a PyTorch version that has been c
ompiled with your version of the CUDA driver. (Triggered internally at /opt/conda/c
onda-bld/pytorch_1695392036766/work/c10/cuda/CUDAFunctions.cpp:108.)
  return torch._C._cuda_getDeviceCount() > 0
>>> exit()
```

4️⃣ Kernel 생성

① ipykernel 설치

```
pip install ipykernel
```

② Kernel 생성

```
python -m ipykernel install --user --name fodong_espnet --dis
```

③ Kernel 목록 조회

```
jupyter kernelspec list
```

④ Kernel 삭제

```
jupyter kernelspec uninstall espnet_test
```