

# DSP2018FALL HW3

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## Environment

NTU CSIE workstation linux11 ( gcc version 8.2.1 20180831 (GCC))

Linux linux11 4.17.11-arch1

## How to compile

make clean

make [MACHINE\_TYPE] [SRIPATH] all

--

\*\*my default [SRIPATH] [MACHINE\_TYPE] [LM]

```
SRIPATH ?= /home/master/06/r06922134/DSP2018FALL/hw3_new/srilm-1.5.10
MACHINE_TYPE ?= i686-m64
LM ?= bigram.lm
```

## How to execute

make clean

make [MACHINE\_TYPE] [SRIPATH] all

make map

make [MACHINE\_TYPE] [SRIPATH] [LM] run

--

\*\*my default [SRIPATH] [MACHINE\_TYPE] [LM]

```
SRIPATH ?= /home/master/06/r06922134/DSP2018FALL/hw3_new/srilm-1.5.10
MACHINE_TYPE ?= i686-m64
LM ?= bigram.lm
```

## What I have done

### Segment corpus and all test data into characters

./separator\_big5.pl corpus.txt >corpus\_seg.txt

./separator\_big5.pl testdata/xx.txt >testdata/seg\_xx.txt

Then rename the segmented testdata as testdata/1.txt, testdata/2.txt... and use them in the following task.

## **Train character-based bigram LM**

Get counts: `./ngram-count -text corpus_seg.txt -write lm.cnt -order 2`

Compute probability: `./ngram-count -read lm.cnt -lm bigram.lm -unk -order 2`

## **Generate ZhuYin-Big5.map from Big5-ZhuYin.map**

make map ( using python3.7.1 file)

## **Using disambig to decode testdata/xx.txt**

```
#!/bin/bash
```

```
SRIPATH="/home/master/06/r06922134/DSP2018FALL/hw3_new/srilm-1.5.10"(my  
SRIPATH)
```

```
SRIPATH_BIN="$SRIPATH/bin/i686-m64"(my SRIPATH_BIN)
```

```
$SRIPATH_BIN/disambig -text testdata/xx.txt -map ZhuYin-Big5.map -lm bigram.lm -  
order 2 > result1/xx.txt
```

## **Implement your version of disambig**

```
make clean
```

```
make [MACHINE_TYPE] [SRIPATH] all
```

```
make [MACHINE_TYPE] [SRIPATH] [LM] run
```