

DLHLP HW5 Report

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5-1

1. Show configuration (1%)

- python3 main.py --do_train --use_wandb --wandb_name pretrain_iter_2 -F_pretrain_iter 1000 -dropout 0.3 -inp_drop_prob 0.3
- 我們提高了 dropout 的數值，以及一開始 pretrain iter 的數量

2. Show loss plot (1%)



3. Show metrics (1%)

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	pos	neg	avg
accuracy	0.914	0.882	0.898
ref-bleu	16.622	19.275	17.9485
perplexity	122.156	170.625	146.3905



4. Show examples & comment on them (1%)

Good	Problematic
<pre>***** neg sample ***** [gold] there is definitely not enough room in that part of the venue . [raw] there is never not enough room in that part of the venue . [rev] there is definitely good enough room in that part of the venue . [ref] there is so much room in that part of the venue .</pre>	<pre>***** pos sample ***** [gold] most delicious authentic chinese food ! [raw] most delicious authentic chinese food ! [rev] most disgusting authentic chinese food ! [ref] most terrible inauthentic chinese food !</pre>
<pre>***** pos sample ***** [gold] and i get the gyro sandwich every time and its the best . [raw] and i get the gyro sandwich every time and its the best . [rev] and i get the gyro sandwich every time and its the worst . [ref] and i get the gyro sandwich every time and its the worst .</pre>	<pre>***** neg sample ***** [gold] what about the time i wasted ? [raw] what about the time i wasted ? [rev] what about the time i veterinary ! [ref] service was quick and swift .</pre>

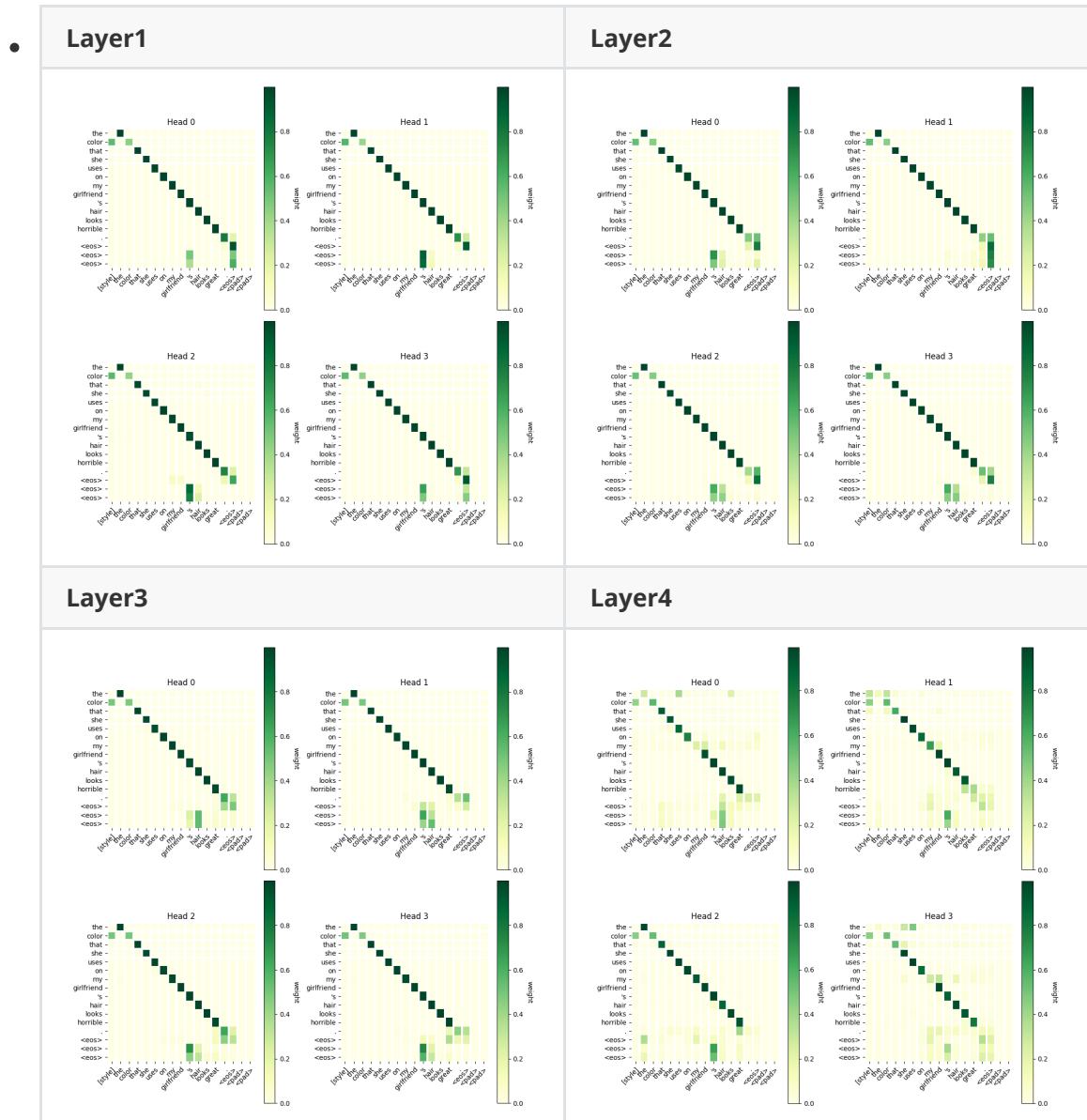
• Comment:

- 在有兩個形容詞需要轉換時，蠻常出現只轉了其中一個造成文意不對和風格未完全轉換，或是同時轉換否定詞和形容詞造成負負得正，沒有轉換風格。

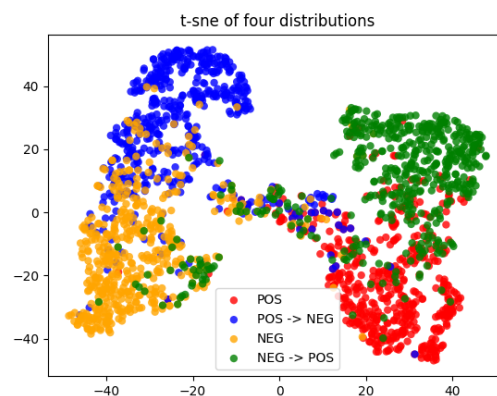
5-2

1. Problem1

- 我們認為這個attention是合理的，我們有實際output attention 的機率，風格轉換的形容詞從layer1到layer4，其實是有顯著的提升，從大約-10次方上升到-4次方，因此 style 和風格轉換的形容詞是有 attend 到的。



2. Problem2



- 從圖可以很明顯的看出分為兩個區域，一邊是positive，一邊是negative，轉換後的negative和原本是negative的比較相近，轉換後的positive和原本是positive的也是較相近的，代表模型是有成功轉換風格。

3. Problem3

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[ORG] they have the big massage chairs and each manicure station is fairly clean .
[REV] they have the big massage chairs but each manicure station is fairly slow .

[ORG] <unk> have the big massage chairs and each manicure station is fairly clean .
[REV] i have the big massage chairs and each manicure station is fairly slow .

[ORG] they <unk> the big massage chairs and each manicure station is fairly clean .
[REV] they said the big massage chairs and each manicure station is fairly clean .

[ORG] they have <unk> big massage chairs and each manicure station is fairly clean .
[REV] they have a big massage chairs but each manicure station is fairly slow .

[ORG] they have the <unk> massage chairs and each manicure station is fairly clean .
[REV] they have the best massage chairs but each manicure station is fairly slow .

[ORG] they have the big <unk> chairs and each manicure station is fairly clean .
[REV] they have the big breakfast chairs and each manicure station is fairly slow .

[ORG] they have the big massage <unk> and each manicure station is fairly clean .
[REV] they have the big massage , and each manicure station is fairly slow .

[ORG] they have the big massage chairs <unk> each manicure station is fairly clean .
[REV] they have the big massage chairs in each manicure station is fairly slow .

[ORG] they have the big massage chairs and <unk> manicure station is fairly clean .
[REV] they have the big massage chairs but the manicure station is fairly slow .

[ORG] they have the big massage chairs and each <unk> station is fairly clean .
[REV] they have the big massage chairs but each other station is fairly slow .

[ORG] they have the big massage chairs and each manicure <unk> is fairly clean .
[REV] they have the big massage chairs and each manicure and is fairly slow .

[ORG] they have the big massage chairs and each manicure station <unk> fairly clean .
[REV] they have the big massage chairs and each manicure station was fairly clean .

[ORG] they have the big massage chairs and each manicure station is <unk> clean .
[REV] they have the big massage chairs and each manicure station is not clean .

[ORG] they have the big massage chairs and each manicure station is fairly <unk> .
[REV] they have the big massage chairs and each manicure station is fairly cheap .

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- Comment:
 - 我們發現在遮掉動詞之後，風格轉換會失敗，像是遮住 have 和 is 都未轉出相反的風格。
 - 當遮住形容詞會造成轉換錯誤，我們認為是因為形容詞在風格轉換是重要的，遮住這部份就容易造成錯誤。

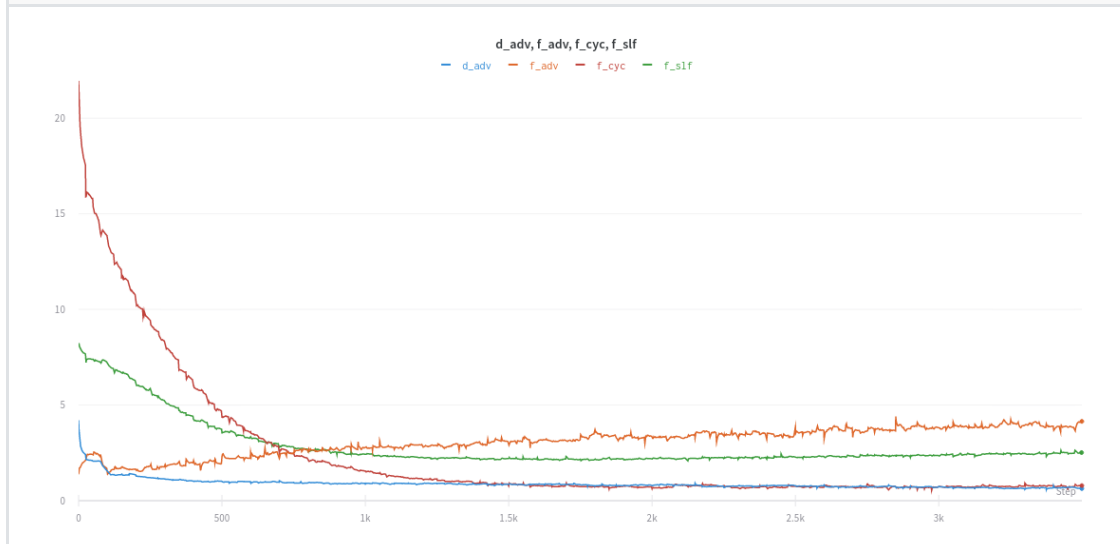
5-3

1. Show configuration (1%)

- `python3 main.py --do_train --use_wandb --wandb_name mix -data_path ./data/mix/ -train_iter 3500`
- 增加了 imdb 的資料並提高 train iter 的數量

2. Show loss plot (1%)

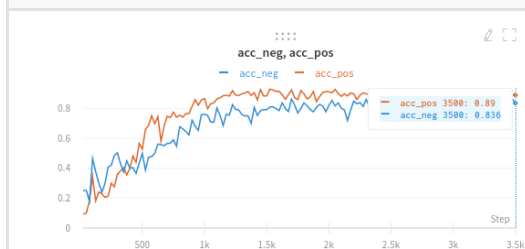
LOSS



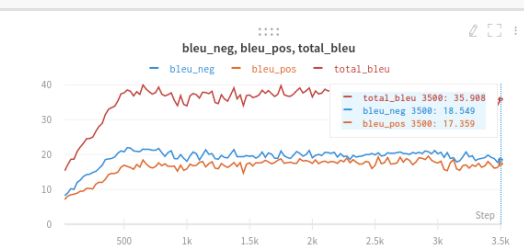
3. Show metrics (1%)

	pos	neg	avg
accuracy	0.89	0.836	0.863
ref-bleu	17.359	18.549	17.954
perplexity	184.721	223.303	204.012

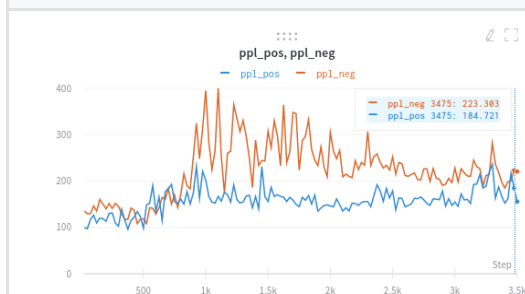
accuracy



BLEU



perplexity



4. Show examples & comment on them (1%)

• Good	Problematic
<pre>***** neg sample ***** [gold] the food was pretty bad , i would not go there again . [raw] the food was pretty bad , i would not go there again . [rev] the food was pretty good , i would always go there again . [ref] the food was great , i would go there again .</pre>	<pre>***** neg sample ***** [gold] salsa is not hot or good . [raw] salsa is not hot or good . [rev] salsa is always hot or good . [ref] salsa is hot and good .</pre>
<pre>***** pos sample ***** [gold] had the normal gyro sandwich with their sauce ... very good . [raw] had the normal gyro sandwich with their sauce ... very good . [rev] had the normal gyro sandwich with their sauce ... very bad . [ref] the gyro sauce was bad .</pre>	<pre>***** pos sample ***** [gold] they were extremely friendly and reasonably priced . [raw] they are extremely friendly and reasonably priced . [rev] they were extremely slow . [ref] they were very rude , and overly priced .</pre>

- Comment:
 - 句子在文法和流暢度上相較於5-1的結果較差，尤其是在negative的資料上，negative的perplexity也相較於5-1高的很多。