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## **Analysing methods of Neural Text Generation to refine conversations**

Code Link- <https://drive.google.com/drive/folders/1aBSdr2BgQ1wYcL1Bt-nBmseMFZix7t2b?usp=sharing>

**CSE-4022- Natural Language Processing**

**Fall Semester 2021-22  
Slot – B2+TB2**

**Under the guidance of,**

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**Assistant Professor (Senior)**

**SCOPE**

### **TEAM MEMBERS:**

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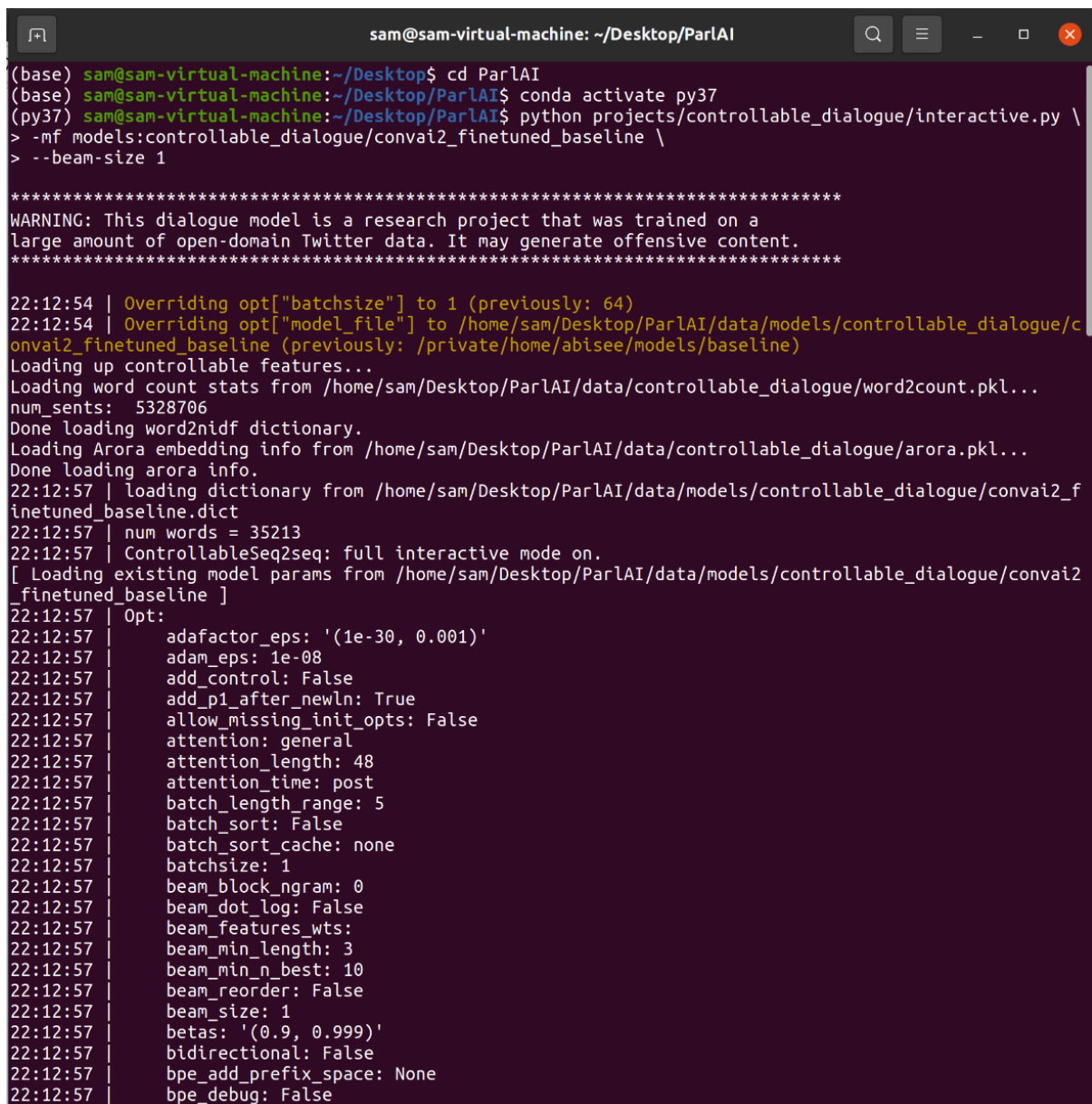
## Download the data

Running the commands to train or chat with the models will automatically download the data for you. Alternatively, you can manually download the data by running python **projects/controllable\_dialogue/tasks/build.py**. This will download the following files to **data/controllable\_dialogue**:

## Chat with the pretrained models

1. Talk to the greedy search baseline model:

```
python projects/controllable_dialogue/interactive.py \
-mf models:controllable_dialogue/convai2_finetuned_baseline \
--beam-size 1
```



```
sam@sam-virtual-machine: ~/Desktop/ParlAI
(base) sam@sam-virtual-machine:~/Desktop$ cd ParlAI
(base) sam@sam-virtual-machine:~/Desktop/ParlAI$ conda activate py37
(py37) sam@sam-virtual-machine:~/Desktop/ParlAI$ python projects/controllable_dialogue/interactive.py \
> -mf models:controllable_dialogue/convai2_finetuned_baseline \
> --beam-size 1

*****
WARNING: This dialogue model is a research project that was trained on a
large amount of open-domain Twitter data. It may generate offensive content.
*****

22:12:54 | Overriding opt["batchsize"] to 1 (previously: 64)
22:12:54 | Overriding opt["model_file"] to /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/c
onvai2_finetuned_baseline (previously: /private/home/abisee/models/baseline)
Loading up controllable features...
Loading word count stats from /home/sam/Desktop/ParlAI/data/controllable_dialogue/word2count.pkl...
num_sents: 5328706
Done loading word2nidf dictionary.
Loading Arora embedding info from /home/sam/Desktop/ParlAI/data/controllable_dialogue/arora.pkl...
Done loading arora info.
22:12:57 | loading dictionary from /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/convai2_f
inetuned_baseline.dict
22:12:57 | num words = 35213
22:12:57 | ControllableSeq2seq: full interactive mode on.
[ Loading existing model params from /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/convai2
_finetuned_baseline ]
22:12:57 | Opt:
22:12:57 |   adafactor_eps: '(1e-30, 0.001)'
22:12:57 |   adam_eps: 1e-08
22:12:57 |   add_control: False
22:12:57 |   add_p1_after_newln: True
22:12:57 |   allow_missing_init_opts: False
22:12:57 |   attention: general
22:12:57 |   attention_length: 48
22:12:57 |   attention_time: post
22:12:57 |   batch_length_range: 5
22:12:57 |   batch_sort: False
22:12:57 |   batch_sort_cache: none
22:12:57 |   batchsize: 1
22:12:57 |   beam_block_ngram: 0
22:12:57 |   beam_dot_log: False
22:12:57 |   beam_features_wts:
22:12:57 |   beam_min_length: 3
22:12:57 |   beam_min_n_best: 10
22:12:57 |   beam_reorder: False
22:12:57 |   beam_size: 1
22:12:57 |   betas: '(0.9, 0.999)'
22:12:57 |   bidirectional: False
22:12:57 |   bpe_add_prefix_space: None
22:12:57 |   bpe_debug: False
```

```

sam@sam-virtual-machine: ~/Desktop/ParlAI
22:12:57 | pytorch_teacher_dataset: None
22:12:57 | pytorch_teacher_task: None
22:12:57 | rank_candidates: False
22:12:57 | rnn_class: lstm
22:12:57 | save_after_valid: False
22:12:57 | save_every_n_secs: -1
22:12:57 | save_format: conversations
22:12:57 | set_controls:
22:12:57 | show_advanced_args: False
22:12:57 | shuffle: False
22:12:57 | single_turn: False
22:12:57 | special_tok_lst: None
22:12:57 | split_lines: False
22:12:57 | starttime: Nov05_12-43
22:12:57 | task: fromfile:parlaiformat
22:12:57 | tensorboard_comment: baseline
22:12:57 | tensorboard_log: True
22:12:57 | tensorboard_metrics: loss,ppl
22:12:57 | tensorboard_tag: None
22:12:57 | text_truncate: None
22:12:57 | truncate: -1
22:12:57 | update_freq: 1
22:12:57 | use_reply: label
22:12:57 | validation_cutoff: 1.0
22:12:57 | validation_every_n_epochs: -1
22:12:57 | validation_every_n_secs: 90
22:12:57 | validation_max_exs: -1
22:12:57 | validation_metric: ppl
22:12:57 | validation_metric_mode: min
22:12:57 | validation_patience: 12
22:12:57 | validation_share_agent: False
22:12:57 | verbose: False
22:12:57 | warmup_rate: 0.0001
22:12:57 | warmup_updates: -1
22:12:57 | weight_decay: None
22:12:57 | weighted_decoding:
22:12:58 | Current ParlAI commit: 81494bbe6cec8599de4e4cb522d805ee55f9676a
Enter [DONE] if you want to end the episode, [EXIT] to quit.
22:12:58 | creating task(s): interactive
Enter Your Message: Hello
[Seq2Seq]: what do you do for a living ?
Enter Your Message: Nothing
[Seq2Seq]: i am a stay at home mom
Enter Your Message: Ok nice
[Seq2Seq]: what city are you from ?
Enter Your Message: Indore, You?
[Seq2Seq]: i am from cali
Enter Your Message: Who is your favourite actor?
[Seq2Seq]: i like robert downey jr
Enter Your Message: [EXIT]
CHAT DONE
(py37) sam@sam-virtual-machine:~/Desktop/ParlAI$

```

2. Talk to the beam search baseline model:

```
python projects/controllable_dialogue/interactive.py \
-mf models:controllable_dialogue/convai2_finetuned_baseline
```

This setting uses beam size 20 by default.

P.T.O.->

```

sam@sam-virtual-machine: ~/Desktop/ParlAI
(py37) sam@sam-virtual-machine:~/Desktop/ParlAI$ python projects/controllable_dialogue/interactive.py \
> -mf models:controllable_dialogue/convai2_finetuned_baseline

*****
WARNING: This dialogue model is a research project that was trained on a
large amount of open-domain Twitter data. It may generate offensive content.
*****

22:17:48 | Overriding opt["batchsize"] to 1 (previously: 64)
22:17:48 | Overriding opt["beam_size"] to 20 (previously: 1)
22:17:48 | Overriding opt["model_file"] to /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/c
onvai2_finetuned_baseline (previously: /private/home/abisee/models/baseline)
Loading up controllable features...
Loading word count stats from /home/sam/Desktop/ParlAI/data/controllable_dialogue/word2count.pkl...
num_sents: 5328706
Done loading word2nidf dictionary.
Loading Arora embedding info from /home/sam/Desktop/ParlAI/data/controllable_dialogue/arora.pkl...
Done loading arora info.
22:17:49 | loading dictionary from /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/convai2_f
inetuned_baseline.dict
22:17:49 | num words = 35213
22:17:49 | ControllableSeq2seq: full interactive mode on.
[ Loading existing model params from /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/convai2
_finetuned_baseline ]
22:17:50 | Opt:
22:17:50 |   adafactor_eps: '(1e-30, 0.001)'
22:17:50 |   adam_eps: 1e-08
22:17:50 |   add_control: False
22:17:50 |   add_p1_after_newln: True
22:17:50 |   allow_missing_init_opts: False
22:17:50 |   attention: general
22:17:50 |   attention_length: 48
22:17:50 |   attention_time: post
22:17:50 |   batch_length_range: 5
22:17:50 |   batch_sort: False
22:17:50 |   batch_sort_cache: none
22:17:50 |   batchsize: 1
22:17:50 |   beam_block_ngram: 0
22:17:50 |   beam_dot_log: False
22:17:50 |   beam_features_wts:
22:17:50 |   beam_min_length: 3
22:17:50 |   beam_min_n_best: 10
22:17:50 |   beam_reorder: False
22:17:50 |   beam_size: 20
22:17:50 |   betas: '(0.9, 0.999)'
22:17:50 |   bidirectional: False
22:17:50 |   bpe_add_prefix_space: None
22:17:50 |   bpe_debug: False
22:17:50 |   bpe_dropout: None
22:17:50 |   bpe_merge: None
22:17:50 |   bpe_vocab: None
22:17:50 |   context length: -1

```

P.T.O.->

```

sam@sam-virtual-machine: ~/Desktop/ParlAI
22:17:50 | show_advanced_args: False
22:17:50 | shuffle: False
22:17:50 | single_turn: False
22:17:50 | special_tok_lst: None
22:17:50 | split_lines: False
22:17:50 | starttime: Nov05_12-43
22:17:50 | task: fromfile:parlaiformat
22:17:50 | tensorboard_comment: baseline
22:17:50 | tensorboard_log: True
22:17:50 | tensorboard_metrics: loss,ppl
22:17:50 | tensorboard_tag: None
22:17:50 | text_truncate: None
22:17:50 | truncate: -1
22:17:50 | update_freq: 1
22:17:50 | use_reply: label
22:17:50 | validation_cutoff: 1.0
22:17:50 | validation_every_n_epochs: -1
22:17:50 | validation_every_n_secs: 90
22:17:50 | validation_max_exs: -1
22:17:50 | validation_metric: ppl
22:17:50 | validation_metric_mode: min
22:17:50 | validation_patience: 12
22:17:50 | validation_share_agent: False
22:17:50 | verbose: False
22:17:50 | warmup_rate: 0.0001
22:17:50 | warmup_updates: -1
22:17:50 | weight_decay: None
22:17:50 | weighted_decoding:
22:17:50 | Current ParlAI commit: 81494bbe6cec8599de4e4cb522d805ee55f9676a
Enter [DONE] if you want to end the episode, [EXIT] to quit.
22:17:50 | creating task(s): interactive
Enter Your Message: Hello
/home/sam/Desktop/ParlAI/projects/controllable_dialogue/controllable_seq2seq/controllable_seq2seq.py:13
41: UserWarning: __floordiv__ is deprecated, and its behavior will change in a future version of pytorch.
It currently rounds toward 0 (like the 'trunc' function NOT 'floor'). This results in incorrect rounding
for negative values. To keep the current behavior, use torch.div(a, b, rounding_mode='trunc'), or
for actual floor division, use torch.div(a, b, rounding_mode='floor').
  hyp_ids = best_idxs // voc_size
[Seq2Seq]: how are you ?
Enter Your Message: I am fine
[Seq2Seq]: what do you do for a living ?
Enter Your Message: I am a student
[Seq2Seq]: what city are you from ?
Enter Your Message: indore
[Seq2Seq]: i'm in cali
Enter Your Message: Ok. Do you know harry potter?
[Seq2Seq]: no i do not
Enter Your Message: ok Bye
[Seq2Seq]: what city are you from ?
Enter Your Message: [EXIT]
CHAT DONE
(py37) sam@sam-virtual-machine:~/Desktop/ParlAI$

```

### 3. Talk to the repetition-controlled (WD) baseline:

```

python projects/controllable_dialogue/interactive.py \
-mf models:controllable_dialogue/convai2_finetuned_baseline \
-wd extrep_2gram:-3.5,extrep_nonstopword:-1e20,intrep_nonstopword:-1e20

```

We can change the weights for these three WD repetition features to be any real number (positive or negative). Here -1e20 represents -infinity. In addition, there are other repetition WD features we can use if we wish: see the keys of WDFEATURE2UPDATEFN in `controllable_seq2seq/controls.py`.

```

CHAT DONE
sam@sam-virtual-machine: ~/Desktop/ParlAI$ python projects/controllable_dialogue/interactive.py \
> -mf models:controllable_dialogue/convai2_finetuned_baseline \
> -wd extrep_2gram:-3.5,extrep_nonstopword:-1e20,intrep_nonstopword:-1e20

*****
WARNING: This dialogue model is a research project that was trained on a
large amount of open-domain Twitter data. It may generate offensive content.
*****

22:22:03 | Overriding opt["batchsize"] to 1 (previously: 64)
22:22:03 | Overriding opt["beam_size"] to 20 (previously: 1)
22:22:03 | Overriding opt["model_file"] to /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/c
onvai2_finetuned_baseline (previously: /private/home/abisee/models/baseline)
Loading up controllable features...
Loading word count stats from /home/sam/Desktop/ParlAI/data/controllable_dialogue/word2count.pkl...
num_sents: 5328706
Done loading word2nidf dictionary.
Loading Arora embedding info from /home/sam/Desktop/ParlAI/data/controllable_dialogue/arora.pkl...
Done loading arora info.
22:22:04 | loading dictionary from /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/convai2_f
inetuned_baseline.dict
22:22:04 | num words = 35213
22:22:04 | ControllableSeq2seq: full interactive mode on.
[ Loading existing model params from /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/convai2
_finetuned_baseline ]
22:22:04 | Opt:
22:22:04 |   adafactor_eps: '(1e-30, 0.001)'
22:22:04 |   adam_eps: 1e-08
22:22:04 |   add_control: False
22:22:04 |   add_p1_after_newln: True
22:22:04 |   allow_missing_init_opts: False
22:22:04 |   attention: general
22:22:04 |   attention_length: 48
22:22:04 |   attention_time: post
22:22:04 |   batch_length_range: 5
22:22:04 |   batch_sort: False
22:22:04 |   batch_sort_cache: none
22:22:04 |   batchsize: 1
22:22:04 |   beam_block_ngram: 0
22:22:04 |   beam_dot_log: False

Enter [DONE] if you want to end the episode, [EXIT] to quit.
22:22:04 | creating task(s): interactive
Enter Your Message: Hello
/home/sam/Desktop/ParlAI/projects/controllable_dialogue/controllable_seq2seq/controllable_seq2seq.py:13
41: UserWarning: __floordiv__ is deprecated, and its behavior will change in a future version of pytorc
h. It currently rounds toward 0 (like the 'trunc' function NOT 'floor'). This results in incorrect roun
ding for negative values. To keep the current behavior, use torch.div(a, b, rounding_mode='trunc'), or
for actual floor division, use torch.div(a, b, rounding_mode='floor').
   hyp_ids = best_idxs // voc_size
[Seq2Seq]: how are you ?
Enter Your Message: I am fine
[Seq2Seq]: what do you do for a living ?
Enter Your Message: Student
[Seq2Seq]: what city are you from ?
Enter Your Message: indore
[Seq2Seq]: i am from los angeles
Enter Your Message: That's a nice place
[Seq2Seq]: yes it is i love it
Enter Your Message: ok bye
[Seq2Seq]: have you ever been ?
Enter Your Message: yeah
[Seq2Seq]: what are your hobbies ?
Enter Your Message: music
[Seq2Seq]: i like to listen to music
Enter Your Message: [EXIT]
CHAT DONE
sam@sam-virtual-machine: ~/Desktop/ParlAI$

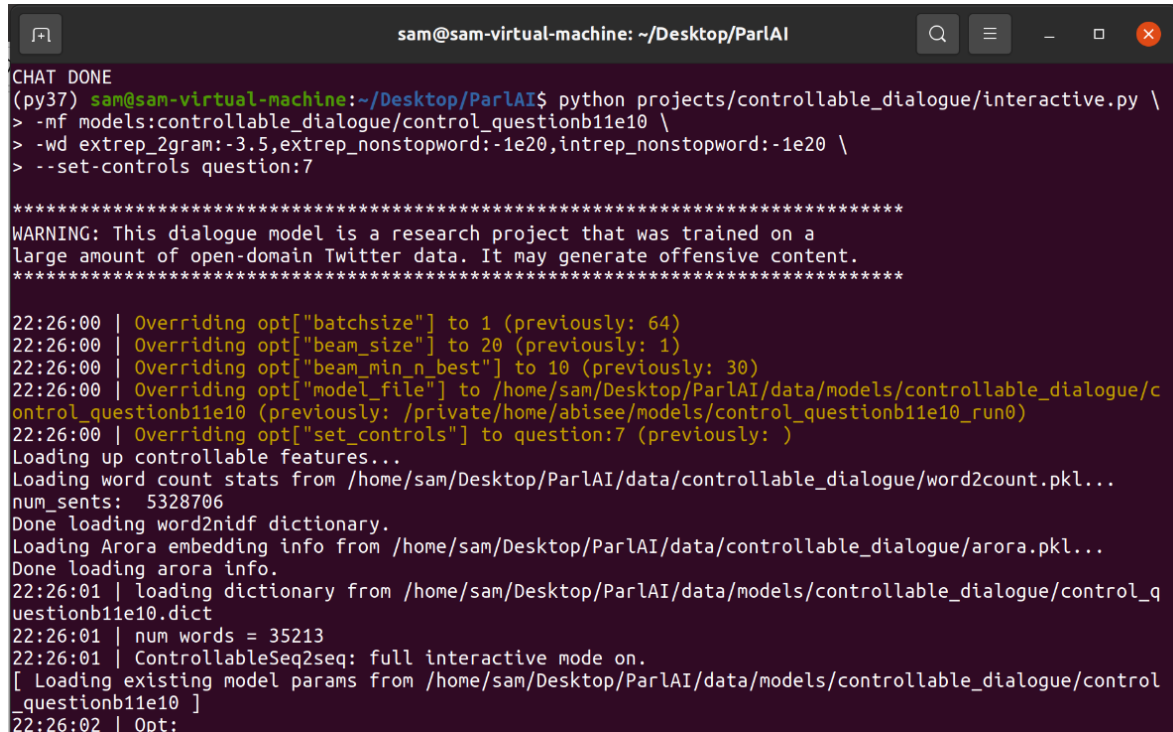
```



4. Talk to the question-controlled CT model (with WD repetition control):

```
python projects/controllable_dialogue/interactive.py \
-mf models:controllable_dialogue/control_questionb11e10 \
-wd extrep_2gram:-3.5,extrep_nonstopword:-1e20,intrep_nonstopword:-1e20 \
--set-controls question:7
```

Here question:7 means the '70% questions' bucket. We can set this anywhere between 0 and 10.



```
CHAT DONE
(py37) sam@sam-virtual-machine:~/Desktop/ParlAI$ python projects/controllable_dialogue/interactive.py \
> -mf models:controllable_dialogue/control_questionb11e10 \
> -wd extrep_2gram:-3.5,extrep_nonstopword:-1e20,intrep_nonstopword:-1e20 \
> --set-controls question:7

*****
WARNING: This dialogue model is a research project that was trained on a
large amount of open-domain Twitter data. It may generate offensive content.
*****

22:26:00 | Overriding opt["batchsize"] to 1 (previously: 64)
22:26:00 | Overriding opt["beam_size"] to 20 (previously: 1)
22:26:00 | Overriding opt["beam_min_n_best"] to 10 (previously: 30)
22:26:00 | Overriding opt["model_file"] to /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/c
ontrol_questionb11e10 (previously: /private/home/abisee/models/control_questionb11e10_run0)
22:26:00 | Overriding opt["set_controls"] to question:7 (previously: )
Loading up controllable features...
Loading word count stats from /home/sam/Desktop/ParlAI/data/controllable_dialogue/word2count.pkl...
num_sents: 5328706
Done loading word2ndf dictionary.
Loading Arora embedding info from /home/sam/Desktop/ParlAI/data/controllable_dialogue/arora.pkl...
Done loading arora info.
22:26:01 | loading dictionary from /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/control_q
uestionb11e10.dict
22:26:01 | num words = 35213
22:26:01 | ControllableSeq2seq: full interactive mode on.
[ Loading existing model params from /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/control
_questionb11e10 ]
22:26:02 | Opt:
```

```
Enter [DONE] if you want to end the episode, [EXIT] to quit.
22:26:02 | creating task(s): interactive
Enter Your Message: Hello
/home/sam/Desktop/ParlAI/projects/controllable_dialogue/controllable_seq2seq/controllable_seq2seq.py:13
41: UserWarning: __floordiv__ is deprecated, and its behavior will change in a future version of pytorc
h. It currently rounds toward 0 (like the 'trunc' function NOT 'floor'). This results in incorrect roun
ding for negative values. To keep the current behavior, use torch.div(a, b, rounding_mode='trunc'), or
for actual floor division, use torch.div(a, b, rounding_mode='floor').
  hyp_ids = best_idxs // voc_size
[Seq2Seq]: how are you ?
Enter Your Message: i am fine
[Seq2Seq]: what do you do for a living ?
Enter Your Message: nothing
[Seq2Seq]: what city are you from ?
Enter Your Message: indore
[Seq2Seq]: i'm in cali .
Enter Your Message: ok
[Seq2Seq]: so what are your hobbies ?
Enter Your Message: music
[Seq2Seq]: what kind of music ?
Enter Your Message: rock
[Seq2Seq]: what is your favorite genre ?
Enter Your Message: action
[Seq2Seq]: that sounds like a lot of fun
Enter Your Message: ok bye
[Seq2Seq]: do you have any pets ?
Enter Your Message: [EXIT]
CHAT DONE
(py37) sam@sam-virtual-machine:~/Desktop/ParlAI$
```

## 5. Talk to the specificity-controlled CT model (with WD repetition control):

```
python projects/controllable_dialogue/interactive.py \
-mf models:controllable_dialogue/control_avgnidf10b10e \
-wd extrep_2gram:-3.5,extrep_nonstopword:-1e20,intrep_nonstopword:-1e20 \
--set-controls avg_nidf:7
```

Here avg\_nidf:7 means the 7th specificity bucket (where higher is more specific). You can set this anywhere between 0 and 9.

```
(py37) sam@sam-virtual-machine:~/Desktop/ParlAI$ python projects/controllable_dialogue/interactive.py \
> -mf models:controllable_dialogue/control_avgnidf10b10e \
> -wd extrep_2gram:-3.5,extrep_nonstopword:-1e20,intrep_nonstopword:-1e20 \
> --set-controls avg_nidf:7

*****
WARNING: This dialogue model is a research project that was trained on a
large amount of open-domain Twitter data. It may generate offensive content.
*****

22:28:55 | Overriding opt["batchsize"] to 1 (previously: 64)
22:28:55 | Overriding opt["beam_size"] to 20 (previously: 1)
22:28:55 | Overriding opt["beam_min_n_best"] to 10 (previously: 30)
22:28:55 | Overriding opt["model_file"] to /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/c
ontrol_avgnidf10b10e (previously: /private/home/abisee/models/control_avgnidf10b10e_run0)
22:28:55 | Overriding opt["set_controls"] to avg_nidf:7 (previously: )
Loading up controllable features...
Loading word count stats from /home/sam/Desktop/ParlAI/data/controllable_dialogue/word2count.pkl...
num_sents: 5328706
Done loading word2nidf dictionary.
Loading Arora embedding info from /home/sam/Desktop/ParlAI/data/controllable_dialogue/arora.pkl...
Done loading arora info.
22:28:56 | loading dictionary from /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/control_a
vgnidf10b10e.dict
22:28:56 | num words = 35213
22:28:56 | ControllableSeq2seq: full interactive mode on.
[ Loading existing model params from /home/sam/Desktop/ParlAI/data/models/controllable_dialogue/control
_avgnidf10b10e ]
22:28:57 | Opt:
22:28:57 | adafactor_eps: '(1e-30, 0.001)'
```

```
Enter [DONE] if you want to end the episode, [EXIT] to quit.
22:28:57 | creating task(s): interactive
Enter Your Message: Hello
/home/sam/Desktop/ParlAI/projects/controllable_dialogue/controllable_seq2seq/controllable_seq2seq.py:13
41: UserWarning: __floordiv__ is deprecated, and its behavior will change in a future version of pytorc
h. It currently rounds toward 0 (like the 'trunc' function NOT 'floor'). This results in incorrect roun
ding for negative values. To keep the current behavior, use torch.div(a, b, rounding_mode='trunc'), or
for actual floor division, use torch.div(a, b, rounding_mode='floor').
  hyp_ids = best_ids // voc_size
[Seq2Seq]: hows it going ?
Enter Your Message: i am fine
[Seq2Seq]: nice to meet you
Enter Your Message: ok bye
[Seq2Seq]: ok see you later
Enter Your Message: [EXIT]
CHAT DONE
(py37) sam@sam-virtual-machine:~/Desktop/ParlAI$
```

P.T.O.->



6. Talk to the specificity-controlled WD model (with WD repetition control):

```
python projects/controllable_dialogue/interactive.py \
-mf models:controllable_dialogue/convai2_finetuned_baseline \
-wd extrep_2gram:-3.5,extrep_nonstopword:-1e20,intrep_nonstopword:-1e20,nidf:4
```

Here nidf:4 means using the NIDF WD feature with weight 4. You can use any real number as a weight (positive or negative).

```
Enter [DONE] if you want to end the episode, [EXIT] to quit.
22:31:59 | creating task(s): interactive
Enter Your Message: hello
Constructing NIDF feature vector...
Done constructing NIDF feature vector; of 35215 words in dict there were 50 words with unknown NIDF; they were marked as NIDF=0.
/home/sam/Desktop/ParLAI/projects/controllable_dialogue/controllable_seq2seq/controllable_seq2seq.py:1341: UserWarning: __floordiv__ is deprecated, and its behavior will change in a future version of pytorch. It currently rounds toward 0 (like the 'trunc' function NOT 'floor'). This results in incorrect rounding for negative values. To keep the current behavior, use torch.div(a, b, rounding_mode='trunc'), or for actual floor division, use torch.div(a, b, rounding_mode='floor').
  hyp_ids = best_idxs // voc_size
[Seq2Seq]: what do you do for a living ?
Enter Your Message: nothing
[Seq2Seq]: what city are you from ?
Enter Your Message: indore
[Seq2Seq]: i am from los angeles
Enter Your Message: ok great
[Seq2Seq]: i'm originally from la but moved to san diego
Enter Your Message: ok nice
[Seq2Seq]: were you born in the us ?
Enter Your Message: no
[Seq2Seq]: i grew up in california
Enter Your Message: [EXIT]
CHAT DONE
(py37) sam@sam-virtual-machine:~/Desktop/ParLAI$
```

7. Talk to the response-relatedness WD model (with WD repetition control):

```
python projects/controllable_dialogue/interactive.py \
-mf models:controllable_dialogue/convai2_finetuned_baseline \
-wd extrep_2gram:-3.5,extrep_nonstopword:-1e20,intrep_2gram:-1e20,intrep_nonstopword:-1e20,partnerrep_2gram:-1e20,lastuttsim:5
```

Here lastuttsim:5 means using the response-relatedness WD feature with weight 5. You can use any real number as a weight (positive or negative).

HERE WE FACED PROBLEM IN RUNNING THE CODE BECAUSE THE DATASET FILE WAS TOO LARGE AND THE COMMAND WAS FACING PROBLEM IN UNZIPPING THE FILE PROPERLY.

```

Enter [DONE] if you want to end the episode, [EXIT] to quit.
22:34:30 | creating task(s): interactive
Enter Your Message: Hello
Traceback (most recent call last):
  File "projects/controllable_dialogue/interactive.py", line 24, in <module>
    interactive(parser.parse_args())
  File "/home/sam/Desktop/ParlAI/parlai/scripts/interactive.py", line 92, in interactive
    world.parley()
  File "/home/sam/Desktop/ParlAI/parlai/tasks/interactive/worlds.py", line 89, in parley
    acts[1] = agents[1].act()
  File "/home/sam/Desktop/ParlAI/parlai/core/torch_agent.py", line 2010, in act
    response = self.batch_act([self.observation])[0]
  File "/home/sam/Desktop/ParlAI/parlai/core/torch_agent.py", line 2101, in batch_act
    output = self.eval_step(batch)
  File "/home/sam/Desktop/ParlAI/projects/controllable_dialogue/controllable_seq2seq/controllable_seq2seq.py", line 1098, in eval_step
    wd_wts=self.wd_wts,
  File "/home/sam/Desktop/ParlAI/projects/controllable_dialogue/controllable_seq2seq/controllable_seq2seq.py", line 967, in beam_search
    wd_wts,
  File "/home/sam/Desktop/ParlAI/projects/controllable_dialogue/controllable_seq2seq/controls.py", line 470, in get_wd_features
    wd_feat_vec = WDFEATURE2UPDATEFN[f]((dict, hypothesis, history, w, wd_feat_vec))
  File "/home/sam/Desktop/ParlAI/projects/controllable_dialogue/controllable_seq2seq/controls.py", line 449, in <lambda>
    "lastuttsim": (lambda x: lastutt_sim_arora_word(x[0], x[1], x[2], x[3], x[4])),
  File "/home/sam/Desktop/ParlAI/projects/controllable_dialogue/controllable_seq2seq/controls.py", line 349, in lastutt_sim_arora_word
    last_utt_emb = sent_embedder.embed_sent(dict.tokenize(last_utt))
  File "/home/sam/Desktop/ParlAI/projects/controllable_dialogue/controllable_seq2seq/arora.py", line 178, in embed_sent
    self.get_glove_embs()
  File "/home/sam/Desktop/ParlAI/projects/controllable_dialogue/controllable_seq2seq/arora.py", line 76, in get_glove_embs
    self.glove_cache = modelzoo_path(self.data_path, 'models:glove_vectors')
  File "/home/sam/Desktop/ParlAI/parlai/core/build_data.py", line 491, in modelzoo_path
    my_module.download(datapath)
  File "/home/sam/Desktop/ParlAI/parlai/zoo/glove_vectors/build.py", line 17, in download
    name='840B', dim=300, cache=os.path.join(datapath, 'models', 'glove_vectors')
  File "/home/sam/anaconda3/envs/py37/lib/python3.7/site-packages/torchtext-0.11.0-py3.7-linux-x86_64.egg/torchtext/vocab/vectors.py", line 220, in __init__
    super(GloVe, self).__init__(name, url=url, **kwargs)
  File "/home/sam/anaconda3/envs/py37/lib/python3.7/site-packages/torchtext-0.11.0-py3.7-linux-x86_64.egg/torchtext/vocab/vectors.py", line 59, in __init__
    self.cache(name, cache, url=url, max_vectors=max_vectors)
  File "/home/sam/anaconda3/envs/py37/lib/python3.7/site-packages/torchtext-0.11.0-py3.7-linux-x86_64.egg/torchtext/vocab/vectors.py", line 168, in cache
    self.itos, self.stoi, self.vectors, self.dim = torch.load(path_pt)
  File "/home/sam/anaconda3/envs/py37/lib/python3.7/site-packages/torch-1.10.0-py3.7-linux-x86_64.egg/torch/serialization.py", line 600, in load

```