
Persona Chatbot HW6

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Outline

- result
- error report

result

- GPT-2 model
- DialoGPT

GPT-2 model

```
Validation: {'accuracy': 0.7722086911934367,  
  'average_accuracy': 0.7722086911934367,  
  'average_nll': 2.685112695543012,  
  'average_pp1': 14.659853387311996,  
  'nll': 2.685112695543012}
```

DialoGPT

```
Validation: {'accuracy': 0.8375849250096141,  
            'average_accuracy': 0.8375849250096141,  
            'average_nll': 2.463657798071865,  
            'average_ppl': 11.747703774807267,  
            'nll': 2.463657798071865}
```

GPT-2 model

personality :

i work as a waitress.

i live in north dakota.

i like to draw.

i ride a bike.

i've 5 brothers and sisters.

GPT-2 model

>>> hello! / hey there, how are you?

>>> pretty good! / what do you do for a living?

>>> i'm still a student. / i am a waitress. what do you do?

repeat

>>> i'm a student. / cool. what do you do?

>>> i'm a student. / what is your major?

>>> my major is electronic engineering. / what are your hobbies?

>>> my hobbies are playing sports, watching movies, and surfing the internet. / cool. what do you like to do?

GPT-2 model

>>> i like to play sports. / i like to ride my bike. what is your favorite sport?

>>> my favorite sport is volleyball. / i like to draw. what is your favorite sport?

repeat

>>> my favorite sport is volleyball. / i enjoy riding my bike.

>>> i like to ride my bike, too. / i enjoy drawing too. i'm a waitress.

>>> i'm a student. / i am a student too. what are you studying?

>>> i am studying ML. / i am studying accounting. what do you do?

>>> i'm a student. / what kind of work do you do?

>>> i study in NTU. / i don't work, but i love to draw. what do you do?

GPT-2 model

>>> i'm an university student. / i'm a waitress at a local restaurant.

>>> what kind of restaurant do you work at? / i'm in north dakota.

>>> i live in Taiwan. / do you have any siblings?

weird

>>> i have two sisters. / i also like to draw.

>>> i said that i have two sisters. / what do you do for a living?

>>> i'm still a student now. / what are you studying?

>>> let's talk about your siblings. / i like to draw.

>>> do you have any siblings? / i have five brothers and sisters. **contradiction**

>>> how many brothers do you have? / i don't have any.

>>> how many sisters do you have? / i've three brothers and two sisters.

GPT-2 model

>>> do you like to watch movies? / i like movies. i like to draw.

>>> which artist do you like most? / i like any kind of theater.

>>> what kind of movies do you like? / i love all types of movies.

general answer

>>> let's talk about drawing. / i like to draw.

>>> yes, i know. so which artist do you like the most? / i like all types.

>>> ok, sounds like you love everything related to art. / do you have any brothers and sisters?

weird

>>> i have two sisters. / i don't have any but my sister is.

>>> how many sisters do you have? / i have 5 brothers and sisters. do you have any hobbies?

Error Report

- cannot successfully import AutoModelForCausalLM and AutoTokenizer for DialoGPT
→ transformers version set to 3.0.2

Unsolved Errors

- Error: Could not infer dtype of NoneType
- Error: forward() got an unexpected keyword argument 'mc_token_ids'
→ use original GPT2DoubleHeadsMODEL and GPT2Tokenizer