

심심한 날 친구가 필요한 날 나는 나는 AI 친구를 만들죠

네코동 고민정

2021-12-01 제6회 N3C



소개

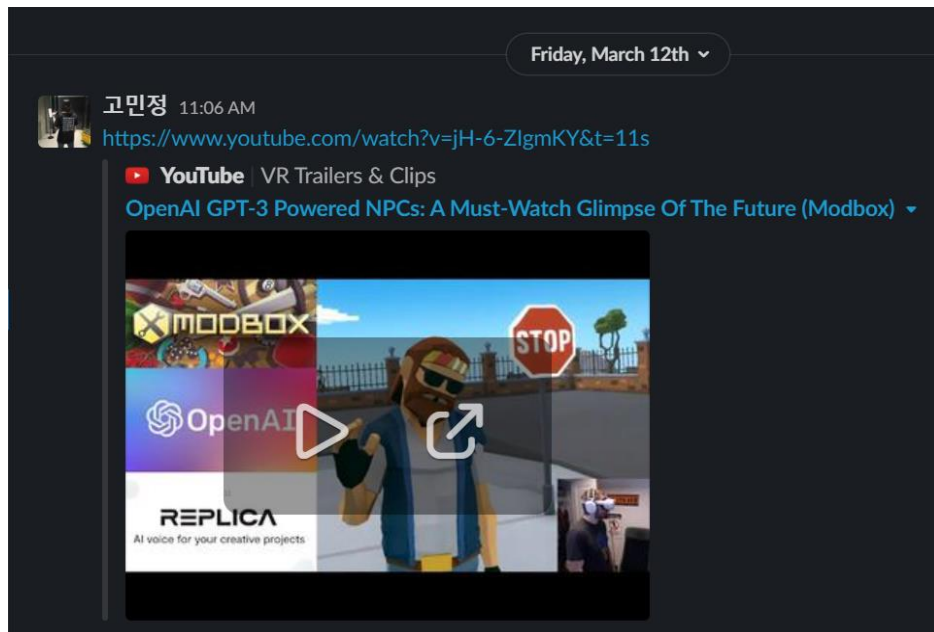
- 고민정
- 넥슨 9년차
- 게임 서버 프로그래머 9년차
- 네코동 6년차
- AI 와 전혀 관련 없는 비전문가



발단

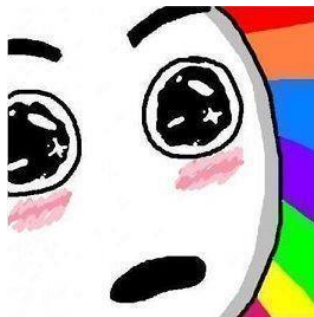
발단

- <https://www.youtube.com/watch?v=jH-6-ZlgmKY>
- GPT-3 VR NPC



머 멋져...!

- 한국어로 대화하면 재밌겠다



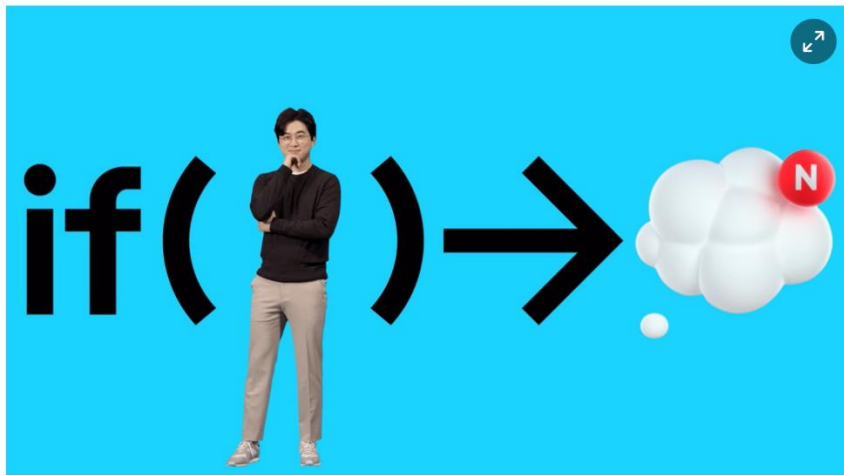
[분석] 베일 벗은 카카오 초거대 AI 'KoGPT', 기존 5

두둥!

- N3C 2주 전쯤
- if Kakao
- 오픈소스

박성은 기자 · 입력 2021.11.16 18:50 · 댓글 0 · 좋아요 0

카카오, 16일 자체 개발한 초거대 AI 'KoGPT' 공개...깃허브로 무상 공유
매개변수 60억개·학습 데이터 2000억개...하이퍼클로바·GPT-3 보다 적어
블록체인 더한 초거대 AI 만든다...기억·추론 구현, 디지털 휴먼 개발 목표



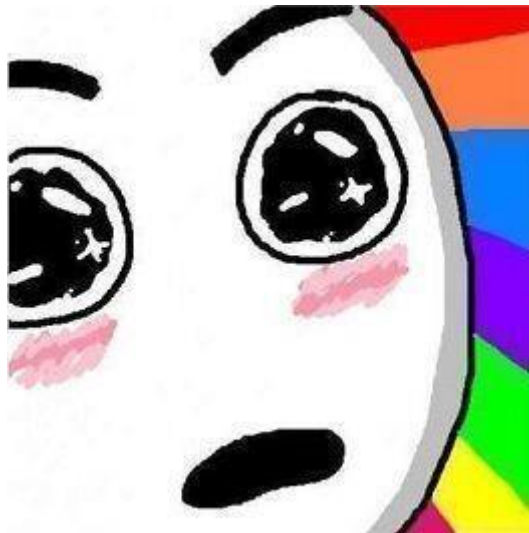
(출처=행사 캡처)

카카오의 초거대 인공지능(AI) 모델이 드디어 베일을 벗었다. 모델 이름은 'KoGPT'. 대표적인 초거대 AI인 오픈AI GPT-3의 한국어판이라는 의미다.

- <http://www.aitimes.com/news/articleView.html?idxno=141575>

한국어 판 GPT-3 라니

- (올해 N3C는) 이거다





AI 친구를 만들어 볼까요!

AI 친구에게는 무엇이 필요할까



넥슨

귀

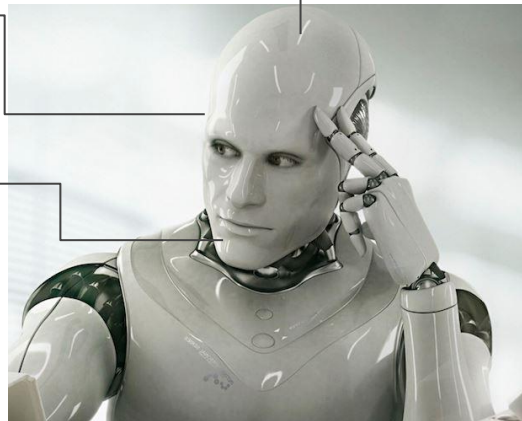
입

최고의 게임 회사

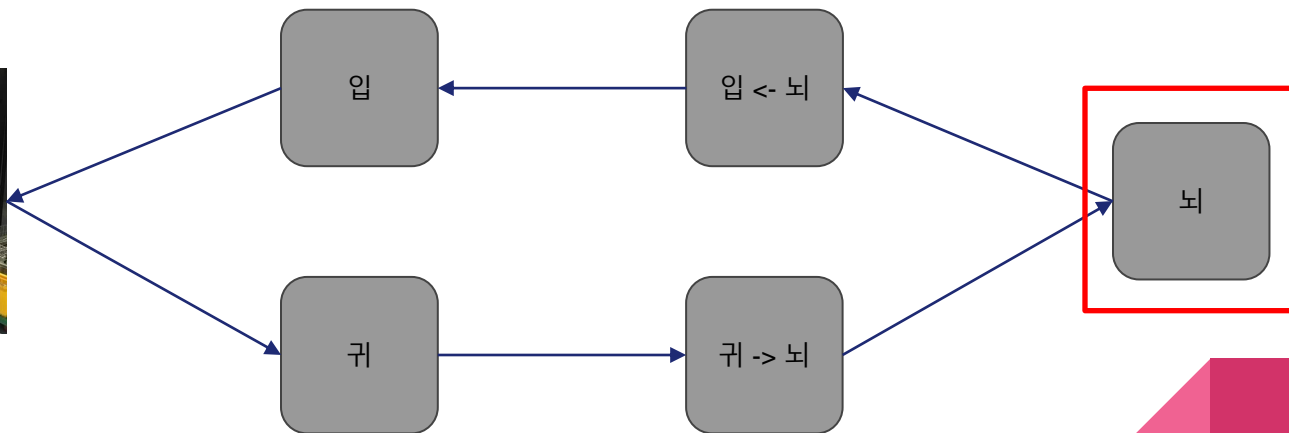
귀

입

뇌



NLP Model



KoGPT

- 카카오브레인 자체 개발
 - 한국어 특화
 - 파라미터 60억개(현재)
 - 오픈소스 공유
-
- GitHub
 - <https://github.com/kakaobrain/kogpt>
 - Hugging Face
 - <https://huggingface.co/kakaobrain/kogpt>

Why GitHub? Team Enterprise Explore Marketplace Pricing

kakaobrain / kogpt (Public)

<> Code Issues Pull requests Security Insights

main 1 branch 1 tag

Go to file Code

wbaek Merge pull request #10 from rekko/main 7c63ad9 6 days ago 33 commits

.dev	Develop (#1)	17 days ago
huggingface/KoGPT6B-ryan1.5b	fix #5	7 days ago
kogpt	Merge pull request #10 from rekko/main	6 days ago
.gitignore	Initial commit	18 days ago
CONTRIBUTING.md	Develop (#1)	17 days ago
LICENSE	Develop (#1)	17 days ago
LICENSE.apache-2.0	Develop (#1)	17 days ago
LICENSE.cc-by-nc-nd-4.0	Develop (#1)	17 days ago
README.md	fix #5	7 days ago
requirements.txt	Develop (#1)	17 days ago

README.md

KoGPT

Kakao Brain Github kogpt License Apache 2.0

huggingface KoGPT 6B ryan1.5b huggingface KoGPT 6B ryan1.5b (float16) License CC BY-NC-ND 4.0

- KoGPT (Korean Generative Pre-trained Transformer)
 - <https://github.com/kakaobrain/kogpt>
 - <https://huggingface.co/kakaobrain/kogpt>

Model Descriptions

KoGPT6B-ryan1.5b

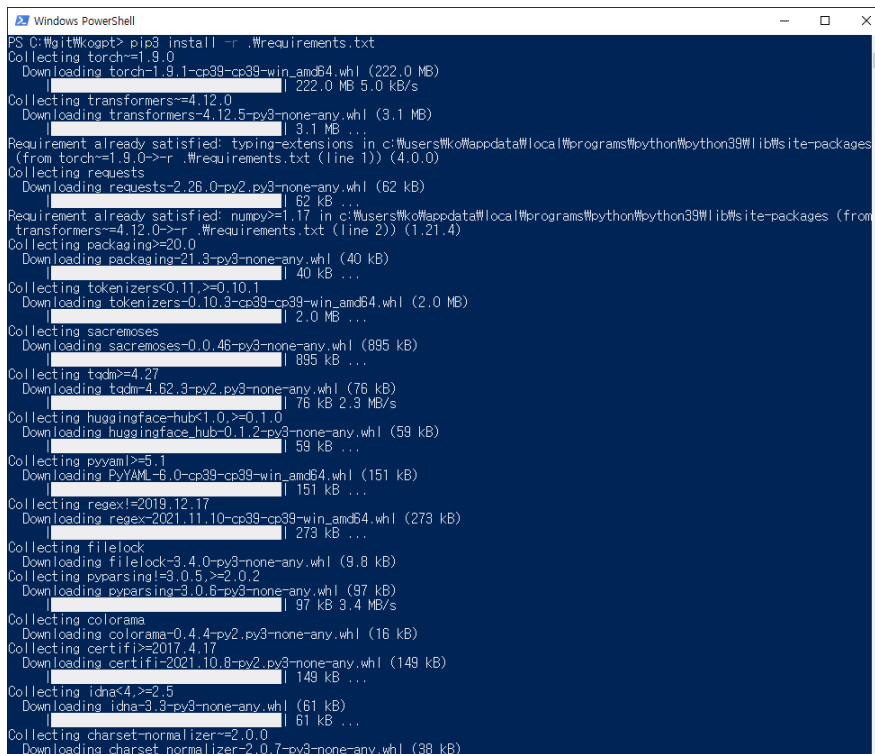
준비물

- (성능이 괜찮은) 하드웨어
- 터미널
- python
- kogpt
 - torch~=1.9.0
 - transformers~=4.12.0

git clone

<https://github.com/kakaobrain/kogpt.git>

pip3 install -r requirements.txt



```
PS C:\git\kogpt> pip3 install -r requirements.txt
Collecting torch==1.9.0
  Downloading torch-1.9.1-cp39-cp39-win_amd64.whl (222.0 MB)
    | 222.0 MB 5.0 kB/s
Collecting transformers==4.12.0
  Downloading transformers-4.12.5-py3-none-any.whl (3.1 MB)
    | 3.1 MB ...
Requirement already satisfied: typing-extensions in c:\users\kko\AppData\Local\programs\python\python39\lib\site-packages
(from torch==1.9.0->requirements.txt (line 1)) (4.0.0)
Collecting requests
  Downloading requests-2.26.0-py2.py3-none-any.whl (62 kB)
    | 62 kB ...
Requirement already satisfied: numpy>=1.17 in c:\users\kko\AppData\Local\programs\python\python39\lib\site-packages (from
transformers==4.12.0->requirements.txt (line 2)) (1.21.4)
Collecting packaging>=20.0
  Downloading packaging-21.3-py3-none-any.whl (40 kB)
    | 40 kB ...
Collecting tokenizers<0.11.>=0.10.1
  Downloading tokenizers-0.10.3-cp39-cp39-win_amd64.whl (2.0 MB)
    | 2.0 MB ...
Collecting sacremoses
  Downloading sacremoses-0.0.46-py3-none-any.whl (895 kB)
    | 895 kB ...
Collecting tqdm==4.27
  Downloading tqdm-4.62.3-py2.py3-none-any.whl (76 kB)
    | 76 kB 2.3 MB/s
Collecting huggingface-hub<1.0.>=0.1.0
  Downloading huggingface-hub-0.1.2-py3-none-any.whl (59 kB)
    | 59 kB ...
Collecting pyyaml>=5.1
  Downloading PyYAML-6.0-cp39-cp39-win_amd64.whl (151 kB)
    | 151 kB ...
Collecting regex==2019.12.17
  Downloading regex-2021.11.10-cp39-cp39-win_amd64.whl (273 kB)
    | 273 kB ...
Collecting filelock
  Downloading filelock-3.4.0-py3-none-any.whl (9.8 kB)
Collecting pyparsing!=3.0.5,>=2.0.2
  Downloading pyparsing-3.0.6-py3-none-any.whl (97 kB)
    | 97 kB 3.4 MB/s
Collecting colorama
  Downloading colorama-0.4.4-py2.py3-none-any.whl (16 kB)
Collecting certifi>=2017.4.17
  Downloading certifi-2021.10.8-py2.py3-none-any.whl (149 kB)
    | 149 kB ...
Collecting idna<4,>=2.5
  Downloading idna-3.3-py3-none-any.whl (61 kB)
    | 61 kB ...
Collecting charset-normalizer==2.0.0
  Downloading charset-normalizer-2.0.7-py3-none-any.whl (38 kB)
```

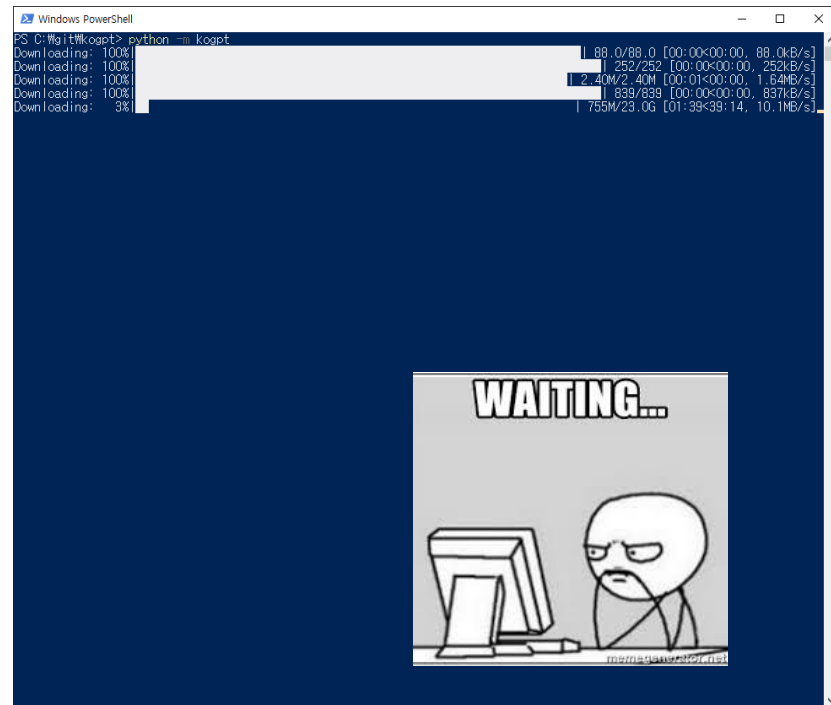
준비된 나의 장비들

- RTX 3070
- 6-Core 3.7 GHz
- 32GB RAM
- 사이버펑크 시크릿랩 콜라보 게이밍의 자 (한정판)
- 고마워요 사이버펑크



실행!

- `python -m kogpt`
 - 디폴트는 CUDA
 - `python -m kogpt --device=CPU`
- 모델 약 23G 다운로드
 - KoGPT6B-ryan1.5b
 - KoGPT6B-ryan1.5b-float16



안녕?

Windows PowerShell

```
PS C:\git\kogpt> python -m kogpt --device=cpu  
prompt> 안녕  
temperature(0.8)>  
max_length(128)> 64
```

Windows PowerShell

```
PS C:\git\kogpt> python -m kogpt --device=cpu  
prompt> 안녕  
temperature(0.8)>  
max_length(128)> 64
```

안녕하세요.~ 제주 토배기 제주바다(제주조수수산)입니다.~~ 오늘도 저희 생선드시고 건강한 하루되세요.^^ 그럼, 오늘도 판매 시작합니다.^^ (택배비 별도, 계좌는 맨 하단 참조바랍니다.) 오랜만에 꼬지를 판매합니다.

```
prompt>
```

벌써 즐겁다



rekkos 8 days ago

ㅋㅋㅋㅋㅋㅋ 원하는 대답 받기 쉽지 않구만



rekkos 8 days ago

image.png ▼

```
prompt> 심심한 날 친구가 필요한 날  
temperature(0.8)> 10.0  
max_length(128)> 16  
심심한 날 친구가 필요한 날.. 정말.. 이 때 정말 심각
```



rekkos 8 days ago

ㅋㅋㅋㅋㅋㅋㅋㅋㅋㅋㅋㅋ



rekkos 8 days ago

image.png ▼

```
prompt> 심심한 날 친구가 필요한 날  
temperature(0.8)> 0.5  
max_length(128)> 16  
심심한 날 친구가 필요한 날 (심심한 날 특집)  
심
```

```
prompt> 심심한 날 친구가 필요한 날  
temperature(0.8)> 0.1  
max_length(128)> 16  
심심한 날 친구가 필요한 날, 친구가 필요한 날, 친구
```

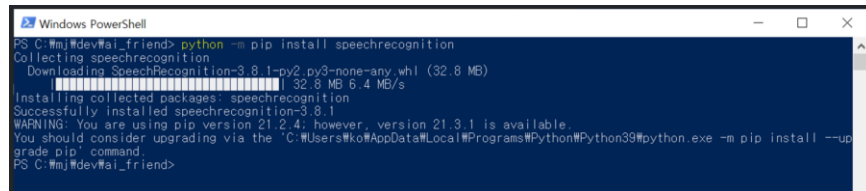

하지만 시간이...

- 최소 노력 최대 효율!
 - STT-TTS
 - 중간 파일(텍스트파일, 녹음파일)
 - 수정 최소화



SpeechRecognition

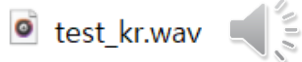
```
python -m pip install speechrecognition
```



```
Windows PowerShell
PS C:\m\dev\ai_friend> python -m pip install speechrecognition
Collecting speechrecognition
  Downloading SpeechRecognition-3.8.1-py2.py3-none-any.whl (32.8 MB)
    |#####| 32.8 MB 6.4 MB/s
Installing collected packages: speechrecognition
Successfully installed speechrecognition-3.8.1
WARNING: You are using pip version 21.2.4; however, version 21.3.1 is available.
You should consider upgrading via the 'C:\Users\ko\AppData\Local\Programs\Python\Python39\python.exe -m pip install --up
grade pip' command.
PS C:\m\dev\ai_friend>
```

- 음성인식 **API** 패키지
 - Google Speech Recognition, MS Bing Voice Recognition, IBM Speech to Text, ...
- <https://pypi.org/project/SpeechRecognition/>

음성 -> 텍스트



test_kr.wav

```
File Edit Selection View Go Run Terminal Help
__main__.py test.py x
C: > mj > dev > ai_friend > test.py > ...
1 import speech_recognition as sr
2
3 r = sr.Recognizer()
4 harvard = sr.AudioFile('test_kr.wav')
5 with harvard as source:
6     audio = r.record(source)
7
8 print(r.recognize_google(audio, language='ko-KR'))
```

Windows PowerShell

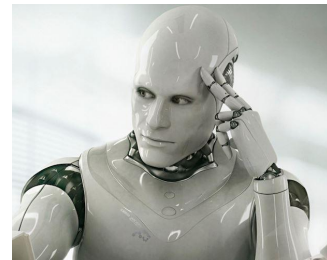
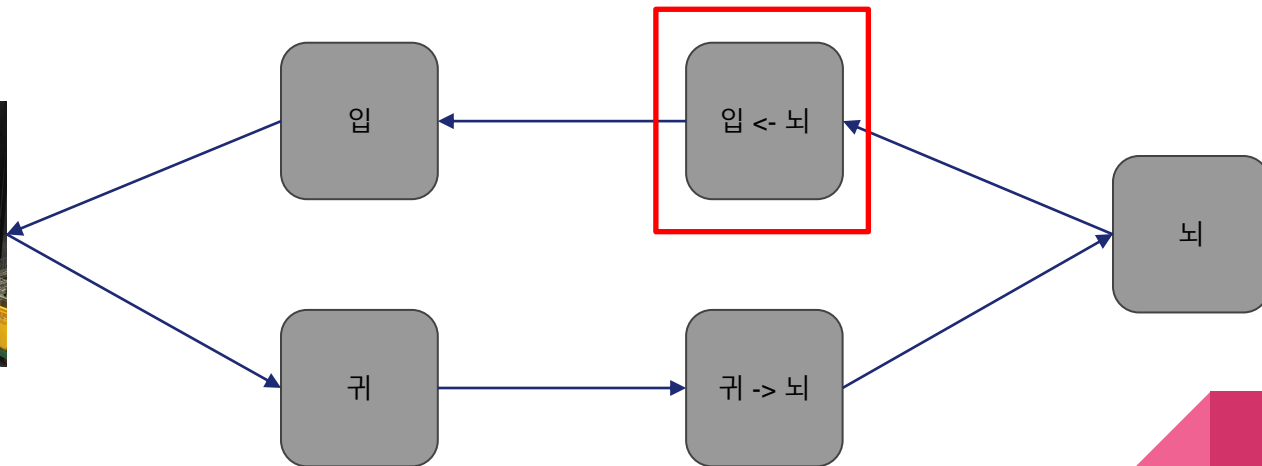
```
PS C:\mj\dev\ai_friend> python test.py
annyeonghaseyo you say coconuts
```

Windows PowerShell

```
PS C:\mj\dev\ai_friend> python test.py
annyeonghaseyo you say coconuts
PS C:\mj\dev\ai_friend> python test.py
안녕하세요 힘세고강한아침
PS C:\mj\dev\ai_friend>
```

Text To Speech

- TTS
- 텍스트 -> 음성



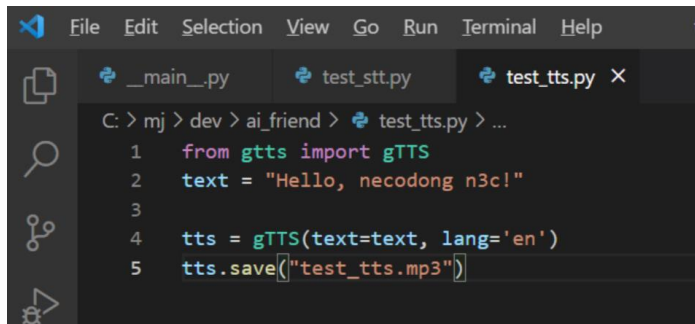
gTTS

pip install gTTS


- Google Text-to-Speech
- <https://pypi.org/project/gTTS/>

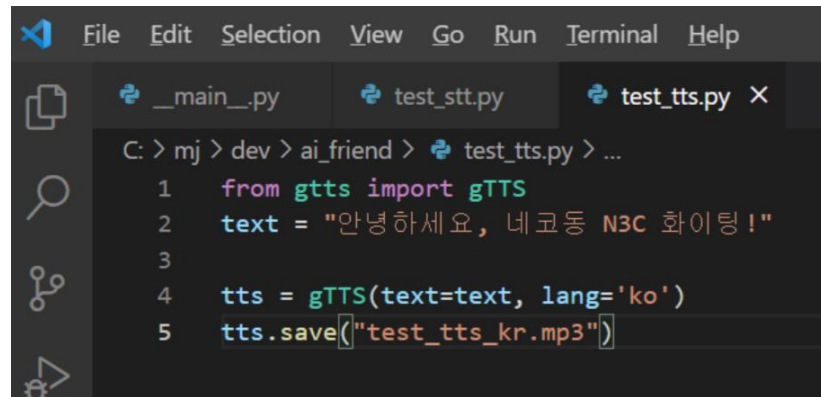
```
Windows PowerShell
PS C:\mj\dev\ai_friend> pip install gTTS
Collecting gTTS
  Downloading gTTS-2.2.3-py3-none-any.whl (25 kB)
Requirement already satisfied: click in c:\users\ko\AppData\Local\programs\python\python39\lib\site-packages (from gTTS) (8.0.3)
Requirement already satisfied: six in c:\users\ko\AppData\Local\programs\python\python39\lib\site-packages (from gTTS) (1.16.0)
Requirement already satisfied: requests in c:\users\ko\AppData\Local\programs\python\python39\lib\site-packages (from gTTS) (2.26.0)
Requirement already satisfied: colorama in c:\users\ko\AppData\Local\programs\python\python39\lib\site-packages (from click->gTTS) (0.4.4)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\ko\AppData\Local\programs\python\python39\lib\site-packages (from requests->gTTS) (2021.10.8)
Requirement already satisfied: charset-normalizer<=2.0.0 in c:\users\ko\AppData\Local\programs\python\python39\lib\site-packages (from requests->gTTS) (2.0.7)
Requirement already satisfied: idna<4,>=2.5 in c:\users\ko\AppData\Local\programs\python\python39\lib\site-packages (from requests->gTTS) (3.3)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\ko\AppData\Local\programs\python\python39\lib\site-packages (from requests->gTTS) (1.26.7)
Installing collected packages: gTTS
Successfully installed gTTS-2.2.3
WARNING: You are using pip version 21.2.4; however, version 21.3.1 is available.
You should consider upgrading via the 'C:\Users\ko\AppData\Local\Programs\Python\Python39\python.exe -m pip install --upgrade pip' command.
PS C:\mj\dev\ai_friend>
```

텍스트 -> 음성




```
File Edit Selection View Go Run Terminal Help
__main__.py test_stt.py test_tts.py X
C: > mj > dev > ai_friend > test_tts.py > ...
1 from gtts import gTTS
2 text = "Hello, necodong n3c!"
3
4 tts = gTTS(text=text, lang='en')
5 tts.save("test_tts.mp3")
```

 test_tts.mp3

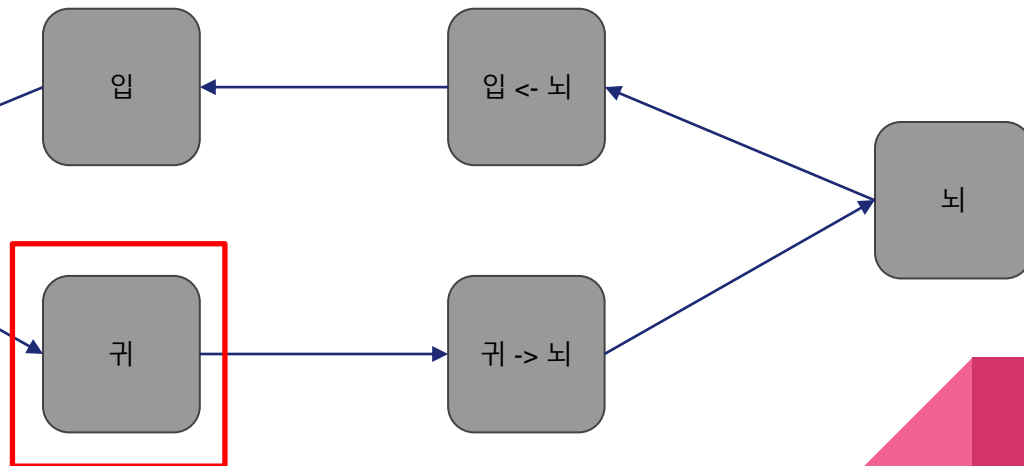


```
File Edit Selection View Go Run Terminal Help
__main__.py test_stt.py test_tts.py X
C: > mj > dev > ai_friend > test_tts.py > ...
1 from gtts import gTTS
2 text = "안녕하세요, 네코동 N3C 화이팅!"
3
4 tts = gTTS(text=text, lang='ko')
5 tts.save("test_tts_kr.mp3")
```

 test_tts_kr.mp3



마이크 음성 -> 오디오 신호



pyaudio

- pip install pyaudio
 - 윈도우에서 파이썬 3.7에는 설치가 안 되고 직접 컴파일 해서 써야 한다고...
- pipwin
 - pip install pipwin
 - pipwin install pyaudio
 - 이런 분들 덕분에 파이썬 씁니다



rekkos 3 days ago

pipwin is like pip, but it installs precompiled Windows binaries provided by Christoph Gohlke. Saves you a lot of googling and manual downloading.



rekkos 3 days ago

컴파일 삽질할 필요 없이 해결!

```
6 import pyaudio
7 import wave
8 import sys
9
10
11 def stt():
12     # voice record (5 sec)
13     chunk = 1024
14     FORMAT = pyaudio.paInt16
15     CHANNELS = 1
16     RATE = 44100
17     RECORD_SECONDS = 5
18     WAVE_OUTPUT_FILENAME = "output.wav"
19
20     p = pyaudio.PyAudio()
21
22     stream = p.open(format = FORMAT,
23                     channels = CHANNELS,
24                     rate = RATE,
25                     input = True,
26                     frames_per_buffer = chunk)
27
28     print ("** recording (5 seconds)")
29     all = []
30     for i in range(0, int(RATE / chunk * RECORD_SECONDS)):
31         data = stream.read(chunk)
32         all.append(data)
33     print ("** done recording")
34
35     stream.close()
36     p.terminate()
37
38     # write data to WAVE file
39     data = b''.join(all)
40     wf = wave.open(WAVE_OUTPUT_FILENAME, 'wb')
41     wf.setnchannels(CHANNELS)
42     wf.setsampwidth(p.get_sample_size(FORMAT))
43     wf.setframerate(RATE)
44     wf.writeframes(data)
45     wf.close()
46
```

모각코에서 다른 사람들과 테스트

- 특별도움
 - 모각코에서 만난 네코동 총무님
- 음성인식 팁: 또박또박한 발음, 연결된 문장



output.wav

0:05 (440 kB)

0:05

Thread #모각코

고민정 Nov 27th at 2:28 PM

image.png

```
PS C:\mj\dev\ai_friend> python .\test_all.py
pygame 2.1.0 (SDL 2.0.16, Python 3.9.9)
Hello from the pygame community. https://www.pygame.org/contribute.html
STT file: output.wav
편의점 말씀해주시죠
TTS file: test_stt_tts.mp3
PS C:\mj\dev\ai_friend>
```

1

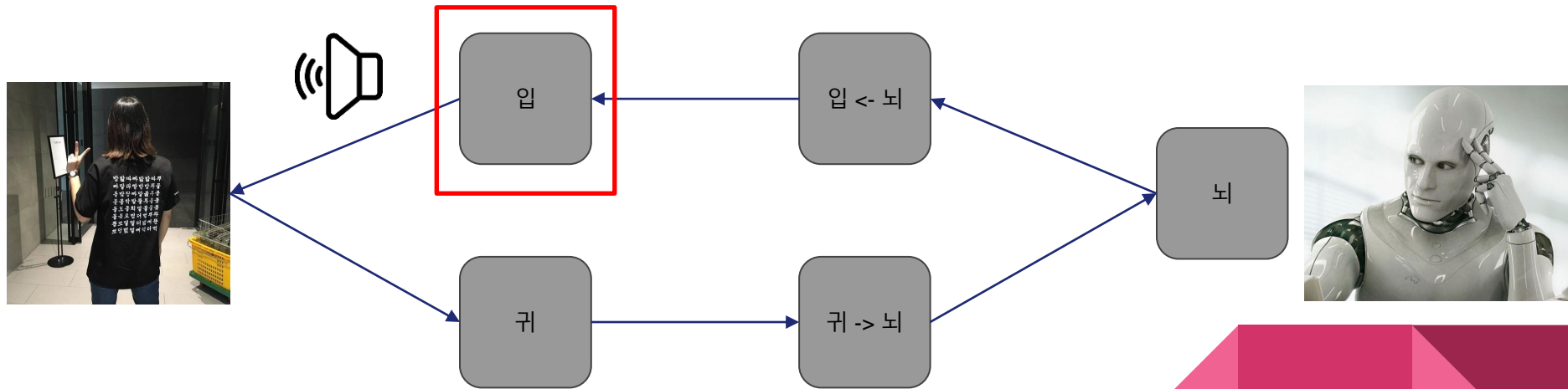
1 reply

고민정 3 days ago

원래 대화는 "태환님 한말씀 해주시죠" 입니다 ㅋㅋ (edited)


1

오디오 신호 -> 스피커 소리



winsound -> pygame

- winsound 시도 실패...
 - 어떤 파일은 되고 어떤 파일은 안 되고
- pygame
 - pip install pygame
 - 게임 관련 크로스플랫폼 멀티미디어 라이브러리
 - 배운게 도둑질 취미 게임 만들 때 써봤어서...
(1회 N3C: 주말 코딩으로 취미 게임 만들기)



```

PS C:\Wmj\dev\ai_friend> pip install pygame
Collecting pygame
  Downloading pygame-2.1.0-cp39-cp39-win-amd64.whl (4.8 MB)
    |#####| 4.8 MB 6.8 MB/s
Installing collected packages: pygame
Successfully installed pygame-2.1.0
WARNING: You are using pip version 21.2.4; however, version 21.3.1 is available.
You should consider upgrading via the 'C:\Users\kwo\AppData\Local\Programs\Python\Python39\python.exe --pip install --upgrade pip' command.
PS C:\Wmj\dev\ai_friend>

```

```
9 # STT
10 print('STT file: ' + input_file)
11 r = sr.Recognizer()
12 voice = sr.AudioFile(input_file)
13 with voice as source:
14     audio = r.record(source)
15
16 input_text = r.recognize_google(audio, language='ko-KR')
17 print(input_text)
```

```
33 pygame.mixer.init()
34 pygame.mixer.music.load(output_file)
35 pygame.mixer.music.play()
36 while pygame.mixer.music.get_busy():
37     print("Playing...")
38
```



rekkos 3 days ago

크... 너무 잘 되어서 눈물이 난다



rekkos 3 days ago

역시 게임 만드는 사람들이 최고야 (???)

[illegible]

드디어 연결!



rekkos Nov 27th at 3:00 PM

드디어 연결한다! KoGPT에!!

image.png ▼

```
Windows PowerShell
PS C:\git\kogpt> python -u kogpt --server-url
python 2.1.0 (OS: 2.0.16, python 3.9.9)
Hello from the pygpt community. https://www.pygpt.org/contribute.html
prompts:
* recording (5 seconds)
* done recording
GPT file: notset.wav
영문
[feedback (last recent call last):
File: C:\Users\Wo\AppData\Local\Programs\Python\Python39\lib\runpy.py, line 197, in _run_module_as_main
return _run_code(code, main_globals, None,
File: C:\Users\Wo\AppData\Local\Programs\Python\Python39\lib\runpy.py, line 87, in _run_code
exec(code, run_globals)
File: C:\git\kogpt\kogpt\_main_.py, line 140, in <module>
cli(args)
File: C:\git\kogpt\kogpt\_main_.py, line 117, in cli
generated = model.generate(prompt, temperature, max_length)
File: C:\git\kogpt\inference.py, line 80, in generate
gen_tokens = self.model.generate(tokens, do_sample=True, temperature=temperature, max_length=max_length)
File: C:\Users\Wo\AppData\Local\Programs\Python\Python39\lib\site-packages\torch\nn\modules\module.py, line 28, in _
execute_module
return func(*args, **kwargs)
File: C:\Users\Wo\AppData\Local\Programs\Python\Python39\lib\site-packages\transformers\generation_utils.py, line 101
), in generate
return self.sample(
File: C:\Users\Wo\AppData\Local\Programs\Python\Python39\lib\site-packages\transformers\generation_utils.py, line 120
), in sample
outputs, self(
File: C:\Users\Wo\AppData\Local\Programs\Python\Python39\lib\site-packages\torch\nn\modules\module.py, line 1051, in
_call_impl
return forward_call(*input, **kwargs)
File: C:\Users\Wo\AppData\Local\Programs\Python\Python39\lib\site-packages\transformers\models\gpt\models\gpt.py,
line 714, in forward
transformer_outputs = self.transformer(
File: C:\Users\Wo\AppData\Local\Programs\Python\Python39\lib\site-packages\torch\nn\modules\module.py, line 1051, in
_call_impl
return forward_call(*input, **kwargs)
File: C:\Users\Wo\AppData\Local\Programs\Python\Python39\lib\site-packages\transformers\models\gpt\models\gpt.py,
line 524, in forward
(input_ids = input_ids.view(-1, input_shape[-1]))
RuntimeError: cannot reshape tensor of 0 elements into shape [-1, 0] because the unspecified dimension size -1 can be an
y value and is ambiguous
PS C:\git\kogpt>
```


10 replies





rekkos 3 days ago


어엿ㅋㅋ 터짐


자잘한 예외처리


 **rekkos** 3 days ago
오 됐다 됐다 잘 됐다! ㅎㅎㅎ

 **rekkos** 3 days ago
하지만 두 번을 파일에 쓰지를 못하는군 ㅋㅋㅋ

 **rekkos** 3 days ago
<https://stackoverflow.com/questions/51741201/gtts-unable-to-save-file-twice>

 **Stack Overflow**
gTTS unable to save file twice
I am attempting to use gTTS as a realistic text to speech module for a personal assistant project. When querying the google service I am able to save the mp3 file and run it with pygame. from pygame

 **rekkos** 3 days ago
이거를 참고해서....

 **rekkos** 3 days ago
count 훌쩍으로 파일이름 생성해주면 된다 ㅋㅋ




 **rekkos** Nov 27th at 3:53 PM
아ㅏ... 아무것도 말 안 해도 터진다 ㅋㅋㅋ

image.png ▾

```
File "C:\Users\rekkos\AppData\Local\Programs\Python\Python39\lib\site-packages\gtts\gtts.py", line 104, in <module>
    count = tts._count_test_count()
File "C:\Users\rekkos\AppData\Local\Programs\Python\Python39\lib\site-packages\gtts\gtts.py", line 88, in tts
    tts._save_output_file()
File "C:\Users\rekkos\AppData\Local\Programs\Python\Python39\lib\site-packages\gtts\gtts.py", line 313, in save
    self.write_to_file()
File "C:\Users\rekkos\AppData\Local\Programs\Python\Python39\lib\site-packages\gtts\gtts.py", line 258, in write_to_file
    prepared_requests = self._prepare_requests()
File "C:\Users\rekkos\AppData\Local\Programs\Python\Python39\lib\site-packages\gtts\gtts.py", line 234, in _prepare_requests
    assert test_parts, "No test to send to TTS API"
AssertionError: No test to send to TTS API
```

2 replies

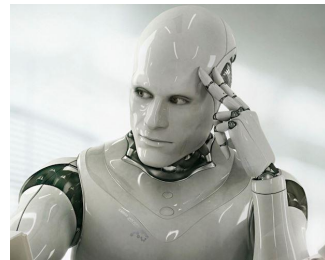
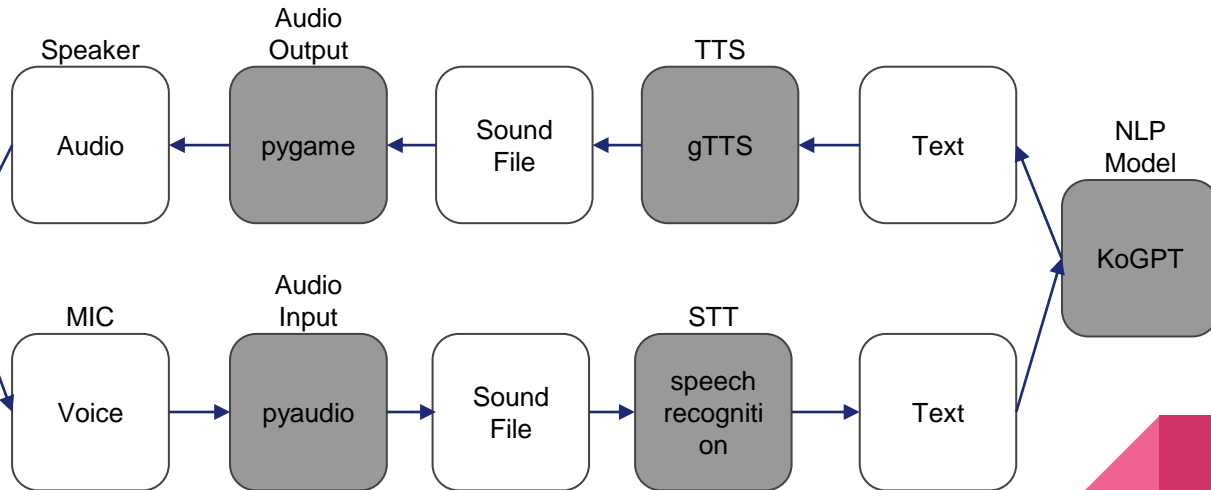
 **rekkos** 3 days ago
'' 이나 " 보내도 안되는군

 **rekkos** 3 days ago
일단 "음" 이라도 보내게

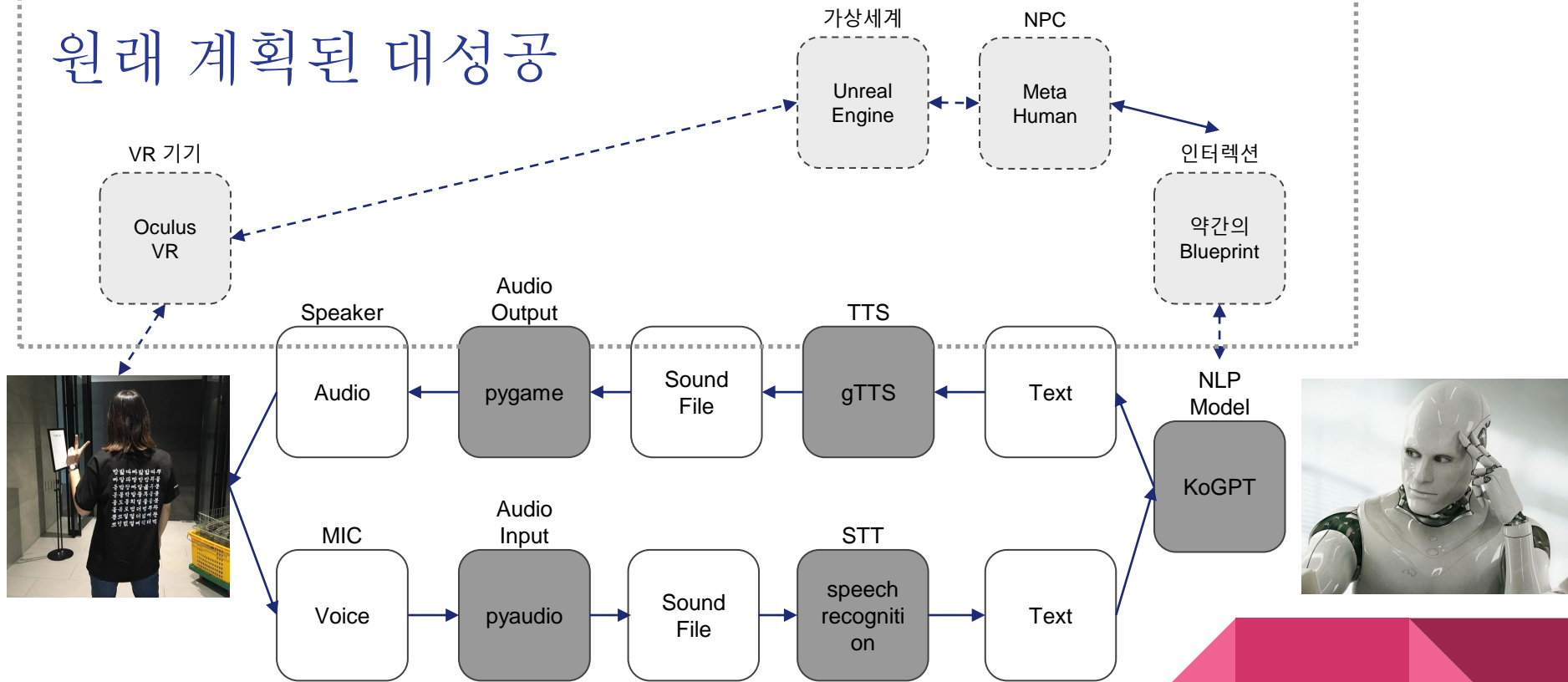
Demo



AI 친구 만들기 소성공(?)

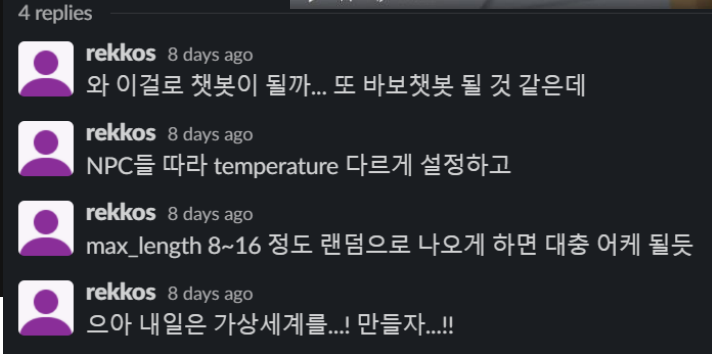
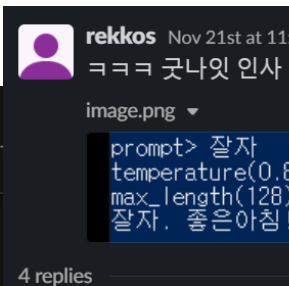
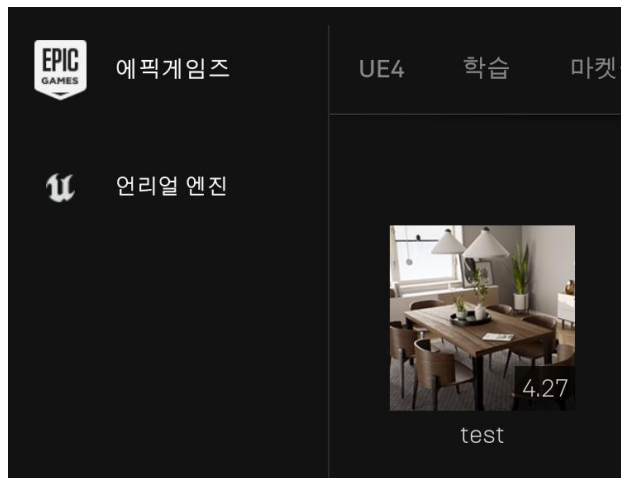


원래 계획된 대성공



나는 다 계획이 있다

- 갑자기 급한일로 이루지 못한 꿈
- 생각보다 금방 될수도...?





one more friend(?)

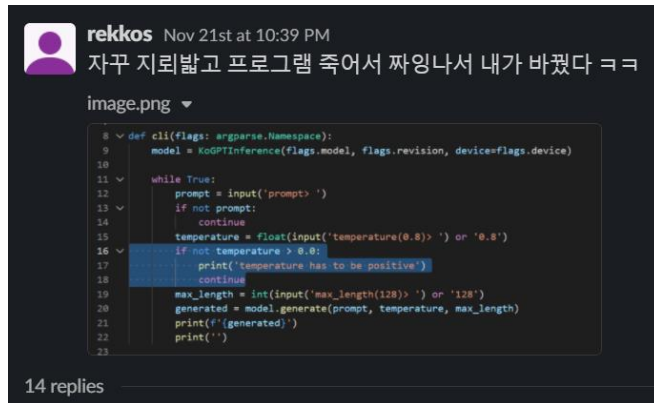
죽지마 컴퓨터

- 평음을 내며 울부짖는(?) 내 컴퓨터를 위해
 - 계속 실수하는 주인이라 미안해...

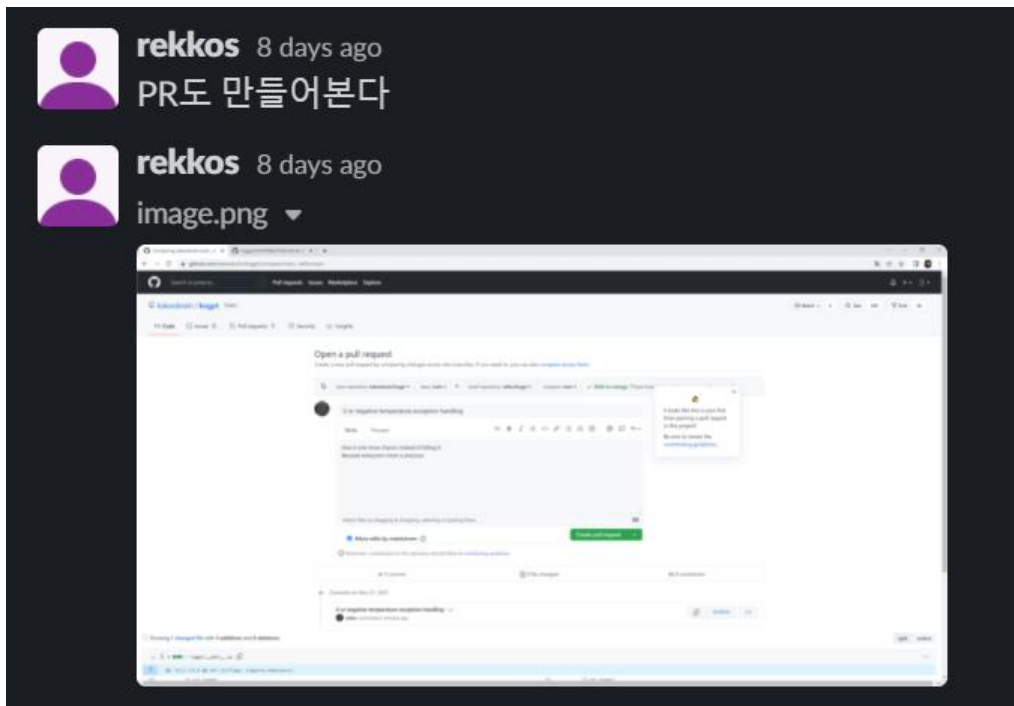
```

prompt> 심심한 날 친구가 필요한 날
temperature(0.8)> 0
max_length(128)> 16
Traceback (most recent call last):
  File "C:\Users\k\AppData\Local\Programs\Python\Python39\lib\runpy.py", line 197, in _run_module_as_main
    return _run_code(code, main_globals, None,
  File "C:\Users\k\AppData\Local\Programs\Python\Python39\lib\runpy.py", line 87, in _run_code
    exec(code, run_globals)
  File "C:\Users\k\opt\k\opt\main_...py", line 39, in <module>
    cli(args)
  File "C:\Users\k\opt\k\opt\main_...py", line 17, in cli
    generated = model.generate(prompt, temperature, max_length)
  File "C:\Users\k\opt\k\opt\inference.py", line 40, in generate
    gen_tokens = self.model.generate(tokens, do_sample=True, temperature=temperature, max_length=max_length)
  File "C:\Users\k\AppData\Local\Programs\Python\Python39\lib\site-packages\torch\autograd\grad_mode.py", line 28, in d
    decorate_context
    return func(*args, **kwargs)
  File "C:\Users\k\AppData\Local\Programs\Python\Python39\lib\site-packages\transformers\generation_utils.py", line 100
4, in generate
    logits_warper = self._get_logits_warper(
  File "C:\Users\k\AppData\Local\Programs\Python\Python39\lib\site-packages\transformers\generation_utils.py", line 542
, in _get_logits_warper
    warpers.append(TemperatureLogitsWarper(temperature))
  File "C:\Users\k\AppData\Local\Programs\Python\Python39\lib\site-packages\transformers\generation_logits_process.py",
line 138, in __init__
    raise ValueError(f"temperature has to be a strictly positive float, but is {temperature}")
ValueError: temperature has to be a strictly positive float, but is 0.0
PS C:\Users\k\opt>

```

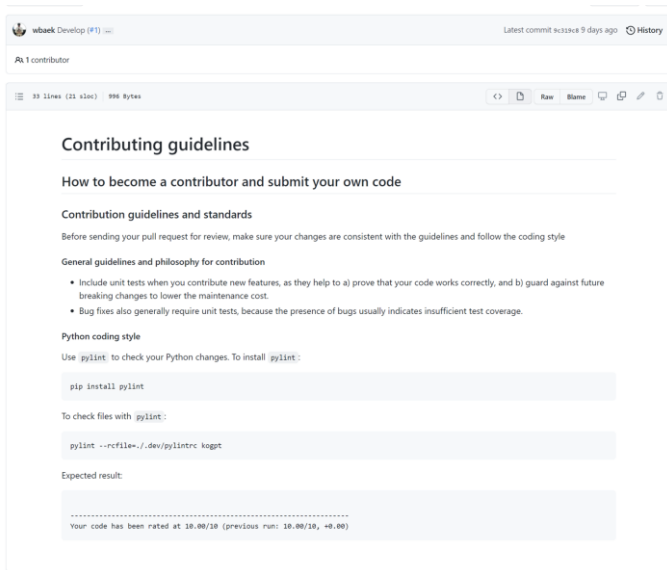


모두의 시간은 소중한니까



Contributing guidelines / pylint

`pylint --rcfile=./.dev/pylintrc kogpt`



Contributing guidelines

How to become a contributor and submit your own code

Contribution guidelines and standards

Before sending your pull request for review, make sure your changes are consistent with the guidelines and follow the coding style

General guidelines and philosophy for contribution

- Include unit tests when you contribute new features, as they help to a) prove that your code works correctly, and b) guard against future breaking changes to lower the maintenance cost.
- Bug fixes also generally require unit tests, because the presence of bugs usually indicates insufficient test coverage.

Python coding style

Use `pylint` to check your Python changes. To install `pylint`:

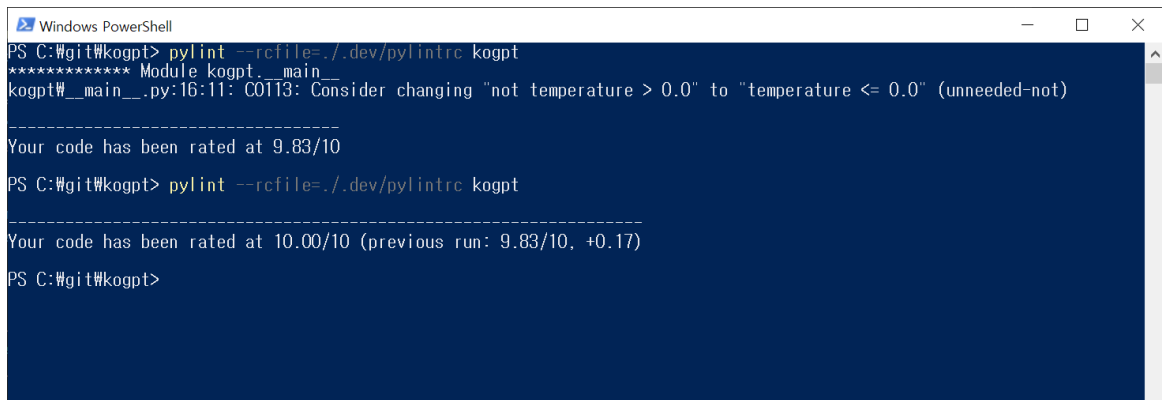
```
pip install pylint
```

To check files with `pylint`:

```
pylint --rcfile=./.dev/pylintrc kogpt
```



Expected result:



```
-----  
Your code has been rated at 10.00/10 (previous run: 10.00/10, +0.00)
```



```
Windows PowerShell  
PS C:\Wgit\kogpt> pylint --rcfile=./.dev/pylintrc kogpt  
***** Module kogpt.__main__  
kogpt\__main__.py:16:11: C0113: Consider changing "not temperature > 0.0" to "temperature <= 0.0" (unneeded-not)  
  
-----  
Your code has been rated at 9.83/10  
  
PS C:\Wgit\kogpt> pylint --rcfile=./.dev/pylintrc kogpt  
  
-----  
Your code has been rated at 10.00/10 (previous run: 9.83/10, +0.17)  
  
PS C:\Wgit\kogpt>
```


머지? Merge!

  wbaek approved these changes 7 hours ago

  wbaek merged commit 7c63ad9 into `kakaobrain:main` 7 hours

Contributors 7




 rekko / kogpt Public

forked from kakaobrain/kogpt


[Code](#) [Pull requests](#) [Actions](#) [Projects](#) [Security](#) [Insights](#)

0 or negative temperature exception handling

Give it one more chance instead of terminating it.
Because everyone's time is precious.

 main (kakaobrain/kogpt#10)

 rekko committed 8 days ago

 Showing 1 changed file with 3 additions and 0 deletions.

3 kogpt/__main__.py

```
@@ -13,6 +13,9 @@ def cli(flags: argparse.Namespace):
13 13         if not prompt:
14 14             continue
15 15         temperature = float(input('temperature(0.8)> ') or '0.8')
16 +         if temperature <= 0.0:
17 +             print('temperature has to be positive')
18 +             continue
16 19         max_length = int(input('max_length(128)> ') or '128')
17 20         generated = model.generate(prompt, temperature, max_length)
18 21         print(f'{generated}')
```

함께해요 AI 친구

카카오브레인 KoGPT

한국어 GPT-3 기여에
관심이 있으시다면

<https://github.com/kakaobrain/kogpt>

The screenshot displays the GitHub repository page for `kakaobrain/kogpt`. The repository is public and has 4 watches, 439 stars, and 41 forks. The main branch is `main`, with 1 branch and 1 tag. The repository is a merge pull request #10 from `rekko/main`, merged 7 hours ago with 33 commits.

The file list shows the following files and their commit history:

File	Commit	Time
<code>.dev</code>	Develop (#1)	11 days ago
<code>huggingface/KoGPT6B-r...</code>	fix #5	yesterday
<code>kogpt</code>	Merge pull request #10 from rekko/main	7 hours ago
<code>.gitignore</code>	Initial commit	
<code>CONTRIBUTING.md</code>	Develop (#1)	
<code>LICENSE</code>	Develop (#1)	11 days ago
<code>LICENSE.apache-2.0</code>	Develop (#1)	11 days ago
<code>LICENSE.cc-by-nc-nd-4.0</code>	Develop (#1)	11 days ago
<code>README.md</code>	fix #5	yesterday
<code>requirements.txt</code>	Develop (#1)	11 days ago

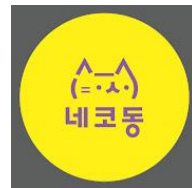
The README content includes the following information:

- KoGPT** (Korean Generative Pre-trained Transformer)
- Links to the repository on GitHub and HuggingFace.
- License: CC BY-NC-ND 4.0

The repository also features a list of contributors and a language usage chart showing Python at 100.0%.

코딩 친구

- 네코동(넥슨 코딩 동호회)
 - 2016년부터 역사와 전통을 자랑하는(?) 프로그래밍 동호회



- 모각코(모여서 각자 코딩)
 - 스터디카페 혹은 동호회실
 - 요즘은 온라인(게더타운)으로도!
 - 외부인 환영



감사합니다

