How to make criticgpt

To train a model like "CriticGPT" using the OpenAI API, you can fine-tune an existing GPT model provided by OpenAI on your dataset of erroneous and corrected code. Here's a step-by-step guide to help you get started:

1. Prepare Your Data

Data Structure: Organize your data into pairs of erroneous code and the corresponding corrected version.

Formatting: Format the data in a JSONL (JSON Lines) file, where each line is a JSON object containing the erroneous code as input and the corrected code as output.

Example of json:

{"prompt": "def foo(x): return x+1 print foo(3)", "completion": "def foo(x): return x+1\nprint(foo(3))"}

{"prompt": "if x = 10: print('x is 10')", "completion": "if x == 10:\n print('x is 10')"}

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2. Set Up the OpenAI API

a. install openai python package : pip install openai

b. API Key: Make sure you have an API key from OpenAI. You can find or generate one in your OpenAI account.

```
import openai

openai.api_key = 'your-api-key-here'
```

3. Fine-Tune the Model

OpenAI offers the ability to fine-tune models via their API. Here's how you can do it:

Upload the Dataset:

First, you need to upload your dataset to OpenAI's servers.

Code:

```
openai.File.create(
  file=open("path/to/your/dataset.jsonl"),
  purpose='fine-tune'
)
```

Create a Fine-Tuning Job: Once your data is uploaded, you can create a fine-tuning job.

```
response = openai.FineTune.create(
  training_file="file-id",
  model="gpt-4",
  n_epochs=3
)
```

Replace "file-id" with the ID of the file you uploaded, and "gpt-4" with the base model you want to fine-tune.

Monitor the Fine-Tuning Process: You can monitor the status of your fine-tuning job.

```
fine_tune_id = response["id"]
status = openai.FineTune.retrieve(fine_tune_id)
print(status["status"])
```

4. **Using the Fine-Tuned Model**

Once your model is fine-tuned, you can use it to generate corrected code based on erroneous input.

```
response = openai.Completion.create(
  model="fine-tuned-model-id",
  prompt="def foo(x): return x+1 print foo(3)",
  max_tokens=50
)
print(response["choices"][0]["text"])
```

Replace "fine-tuned-model-id" with the ID of your fine-tuned model.