

Openai

```
curl https://api.openai.com/v1/completions \
-H "Content-Type: application/json" \
-H "Authorization: Bearer $OPENAI_API_KEY" \
-d '{
  "model": "text-davinci-003",
  "prompt": "The following is a conversation with an AI assistant. The
assistant is helpful, creative, clever, and very friendly.\n\nHuman: Hello,
who are you?\nAI: I am an AI created by OpenAI. How can I help you
today?\nHuman: I'd like to cancel my subscription.\nAI:",
  "temperature": 0.9,
  "max_tokens": 150,
  "top_p": 1,
  "frequency_penalty": 0.0,
  "presence_penalty": 0.6,
  "stop": [" Human:", " AI:"]
}'
```

Separado en petición, creamos el fichero petition.json

```
{
  "model": "text-davinci-003",
  "prompt": "The following is a conversation with an AI assistant. The
assistant is helpful, creative, clever, and very friendly.\n\nHuman: Hello,
who are you?\nAI: I am an AI created by OpenAI. How can I help you
today?\nHuman: I'd like to cancel my subscription.\nAI:",
  "temperature": 0.9,
  "max_tokens": 150,
  "top_p": 1,
  "frequency_penalty": 0.0,
  "presence_penalty": 0.6,
  "stop": [" Human:", " AI:"]
}
```

Y lanzamos la petición:

```
curl -X POST https://api.openai.com/v1/completions \
-H "Content-Type: application/json" \
-H "Authorization: Bearer $OPENAI_API_KEY" \
-d @petition.json
```

Entrenar un modelo

<https://platform.openai.com/docs/guides/fine-tuning>

Instalamos openai-cli. Creamos un fichero csv con el siguiente formato:

Lo cambiamos al formato JSON. Te dice de añadir unos separadores, decíamos que sí. Lanzamos este comando:

Te crea el siguiente fichero:

Lo subimos a openai al modelo ada (que es el barato). Los modelos son: ada, babbage, curie, davinci

```
Upload progress: 100%|███████████████████████████████████| 699/699  
[00:00<00:00, 387kit/s]  
Uploaded file from entrenando_01_prepared.jsonl: file-  
MNz4rv9kV8jpbIRveTXA76YG  
Created fine-tune: ft-V8SeqIneyFcJ0ncJDRUbabWD  
Streaming events until fine-tuning is complete...  
  
(Ctrl-C will interrupt the stream, but not cancel the fine-tune)
```

```
[2023-02-27 19:22:47] Created fine-tune: ft-V8Seq1neyFcJ0ncJDRUbabWD
```

Stream interrupted (client disconnected).

To resume the stream, run:

```
openai api fine_tunes.follow -i ft-V8Seq1neyFcJ0ncJDRUbabWD
```

Podemos ver el estado de la petición:

```
openai api fine_tunes.get -i ft-V8Seq1neyFcJ0ncJDRUbabWD
```

```
{
  "created_at": 1677525767,
  "events": [
    {
      "created_at": 1677525767,
      "level": "info",
      "message": "Created fine-tune: ft-V8Seq1neyFcJ0ncJDRUbabWD",
      "object": "fine-tune-event"
    }
  ],
  "fine_tuned_model": null,
  "hyperparams": {
    "batch_size": null,
    "learning_rate_multiplier": null,
    "n_epochs": 4,
    "prompt_loss_weight": 0.01
  },
  "id": "ft-V8Seq1neyFcJ0ncJDRUbabWD",
  "model": "ada",
  "object": "fine-tune",
  "organization_id": "org-W85oba5lZpI7Keymmpa2exBj",
  "result_files": [],
  "status": "pending",
  "training_files": [
    {
      "bytes": 699,
      "created_at": 1677525767,
      "filename": "entrenando_01_prepared.jsonl",
      "id": "file-MNz4rv9kV8jpbIRveTXA76YG",
      "object": "file",
      "purpose": "fine-tune",
      "status": "processed",
      "status_details": null
    }
  ],
  "updated_at": 1677525767,
  "validation_files": []
}
```

Status está pending, cuando está completed:

```
{
  "created_at": 1677525767,
  "events": [
    {
      "created_at": 1677525767,
      "level": "info",
      "message": "Created fine-tune: ft-V8Seq1neyFcJ0ncJDRUbabWD",
      "object": "fine-tune-event"
    },
    {
      "created_at": 1677526162,
      "level": "info",
      "message": "Fine-tune costs $0.00",
      "object": "fine-tune-event"
    },
    {
      "created_at": 1677526162,
      "level": "info",
      "message": "Fine-tune enqueued. Queue number: 0",
      "object": "fine-tune-event"
    },
    {
      "created_at": 1677526164,
      "level": "info",
      "message": "Fine-tune started",
      "object": "fine-tune-event"
    },
    {
      "created_at": 1677526178,
      "level": "info",
      "message": "Completed epoch 1/4",
      "object": "fine-tune-event"
    },
    {
      "created_at": 1677526180,
      "level": "info",
      "message": "Completed epoch 2/4",
      "object": "fine-tune-event"
    },
    {
      "created_at": 1677526181,
      "level": "info",
      "message": "Completed epoch 3/4",
      "object": "fine-tune-event"
    },
    {
      "created_at": 1677526182,
      "level": "info",
      "message": "Completed epoch 4/4",
      "object": "fine-tune-event"
    }
  ]
}
```

```
    },
    {
      "created_at": 1677526205,
      "level": "info",
      "message": "Uploaded model: ada:ft-
iwanttobefreak-2023-02-27-19-30-05",
      "object": "fine-tune-event"
    },
    {
      "created_at": 1677526208,
      "level": "info",
      "message": "Uploaded result file: file-goxBKlVtpq8p0X4otjLCFh0F",
      "object": "fine-tune-event"
    },
    {
      "created_at": 1677526208,
      "level": "info",
      "message": "Fine-tune succeeded",
      "object": "fine-tune-event"
    }
  ],
  "fine_tuned_model": "ada:ft-iwanttobefreak-2023-02-27-19-30-05",
  "hyperparams": {
    "batch_size": 1,
    "learning_rate_multiplier": 0.1,
    "n_epochs": 4,
    "prompt_loss_weight": 0.01
  },
  "id": "ft-V8Seq1neyFcJ0ncJDRUbabWD",
  "model": "ada",
  "object": "fine-tune",
  "organization_id": "org-W85oba51ZpI7Keymmpa2exBj",
  "result_files": [
    {
      "bytes": 1545,
      "created_at": 1677526206,
      "filename": "compiled_results.csv",
      "id": "file-goxBKlVtpq8p0X4otjLCFh0F",
      "object": "file",
      "purpose": "fine-tune-results",
      "status": "processed",
      "status_details": null
    }
  ],
  "status": "succeeded",
  "training_files": [
    {
      "bytes": 699,
      "created_at": 1677525767,
      "filename": "entrenando_01_prepared.jsonl",
      "id": "file-MNz4rv9kV8jpbiRveTXA76YG",
```

```
    "object": "file",
    "purpose": "fine-tune",
    "status": "processed",
    "status_details": null
  }
],
"updated_at": 1677526208,
"validation_files": []
}
```

Ahora si que nos lista ya nuestro modelo:

```
openai api fine_tunes.list
```

```
{
  "data": [
    {
      "created_at": 1677525767,
      "fine_tuned_model": "ada:ft-iwanttobefreak-2023-02-27-19-30-05",
      "hyperparams": {
        "batch_size": 1,
        "learning_rate_multiplier": 0.1,
        "n_epochs": 4,
        "prompt_loss_weight": 0.01
      },
      "id": "ft-V8Seq1neyFcJ0ncJDRUbabWD",
      "model": "ada",
      "object": "fine-tune",
      "organization_id": "org-W85oba51ZpI7Keymmpa2exBj",
      "result_files": [
        {
          "bytes": 1545,
          "created_at": 1677526206,
          "filename": "compiled_results.csv",
          "id": "file-goxBKLvtpq8p0X4otjLCFh0F",
          "object": "file",
          "purpose": "fine-tune-results",
          "status": "processed",
          "status_details": null
        }
      ],
      "status": "succeeded",
      "training_files": [
        {
          "bytes": 699,
          "created_at": 1677525767,
          "filename": "entrenando_01_prepared.jsonl",
          "id": "file-MNz4rv9kV8jpbIRveTXA76YG",
          "object": "file",
          "purpose": "fine-tune",

```

```
      "status": "processed",
      "status_details": null
    }
  ],
  "updated_at": 1677526208,
  "validation_files": []
}
],
"object": "list"
}
```

Con ada parece un poco mojón....

```
curl https://api.openai.com/v1/completions -H "Authorization: Bearer $OPENAI_API_KEY" -H "Content-Type: application/json" -d '{"prompt": "¿Como se llama la víctima?", "model": "ada:ft-iwanttobefreak-2023-02-27-19-30-05"}'
```

```
{
  "id": "cmpl-6odiKxpEHTmTzmKrpAnqMbQpB77M0",
  "object": "text_completion",
  "created": 1677527080,
  "model": "ada:ft-iwanttobefreak-2023-02-27-19-30-05",
  "choices": [
    {
      "text": "\n\nMonócrata Núrida.\n\n-",
      "index": 0,
      "logprobs": null,
      "finish_reason": "length"
    }
  ],
  "usage": {
    "prompt_tokens": 13,
    "completion_tokens": 15,
    "total_tokens": 28
  }
}
```

Le he vuelto a hacer la pregunta y me ha dicho:

```
Toni
Toni señaló la puerta
```

Con davinci tarda mas, pero sigue dando respuestas que no tienen nada que ver.

Amigo de Jorge

Pilla textos de Juego de tronos y le puedes preguntar. Es en inglés

<https://huggingface.co/deepset/roberta-base-squad2>

Varios

NLP: Servicio de procesamiento de lenguaje natural

Varios servicios Machine Learning de Amazon:

<https://aws.amazon.com/es/free/machine-learning/>

Nueva API

En Marzo de 2023 salió el nuevo modelo gpt-3.5-turbo con su API

Fuente:

<https://platform.openai.com/docs/guides/chat/introduction>

https://github.com/openai/openai-cookbook/blob/main/examples/How_to_format_inputs_to_ChatGPT_models.ipynb

Exportamos la key en bash:

```
export API_KEY='sk-aslasdjkasldjasldjasldjkasldkj '
```

Dede python:

```
import openai

response = openai.ChatCompletion.create(
    model="gpt-3.5-turbo",
    messages=[
        {"role": "system", "content": "You are a helpful assistant."},
        {"role": "user", "content": "Who won the world series in 2020?"},
        {"role": "assistant", "content": "The Los Angeles Dodgers won the World Series in 2020."},
        {"role": "user", "content": "Where was it played?"}
    ]
)

print(response)
```

Respuesta:

```
{
  "choices": [
    {
      "finish_reason": "stop",
```



```
    "index": 0,
    "message": {
      "content": "The 2020 World Series was played at a neutral site due to the COVID-19 pandemic. The games were played at Globe Life Field in Arlington, Texas.",
      "role": "assistant"
    }
  },
  "created": 1677797684,
  "id": "chatcmpl-6pm6uk0cGDlDRTq8GB8vy90AWzbb",
  "model": "gpt-3.5-turbo-0301",
  "object": "chat.completion",
  "usage": {
    "completion_tokens": 35,
    "prompt_tokens": 56,
    "total_tokens": 91
  }
}
```

Con curl:

```
curl https://api.openai.com/v1/chat/completions -H "Authorization: Bearer $API_KEY" -H "Content-Type: application/json" -d '{ "model": "gpt-3.5-turbo", "messages": [{"role": "user", "content": "Inventate una historia de un asesinato en Carabanchel"}] }'
```

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