



Open AI Cheat Sheet 2.0

GPT-3 and ChatGPT APIs, Updated 3/7/23

THE AI EXCHANGE

Getting started

Visit platform.openai.com/playground and create an account if you don't already have one

You are charged by token usage, managed in Billing.

Modes

Completion

Traditionally called “GPT-3” and used to complete text that it's given.

Chat

Access the ChatGPT interface with Systems, Users and Assistants

Insert

Tell the model to generate text anywhere you have the tag [insert]

Edit

Give the model input, then a set of instructions, and it will edit based on your instructions.

Presets

Browse Open AI's prebuilt “Presets”

Create and save your own.

Even share a link with your team, and they can save your preset.

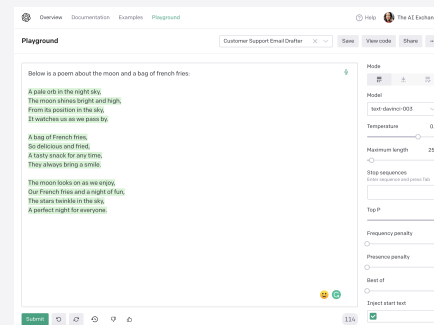
Perfect for Prompt Sharing!

Prompts

GPT-3 Prompts

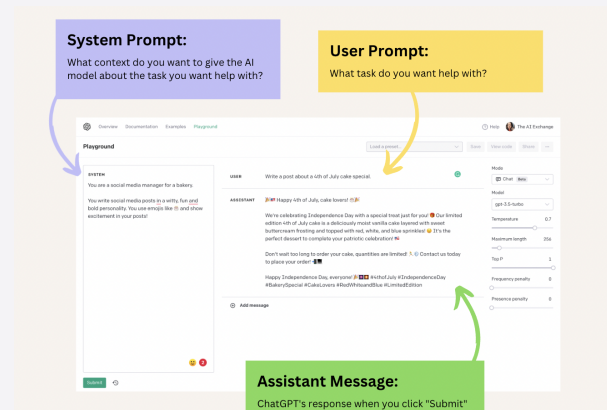
Write your prompt in the big white text box. Click Submit. GPT-3 writes back in green.

Click  to regenerate



ChatGPT Prompts

Set a System Message as “context” for the chat, and User Message as the task at hand. ChatGPT will respond as an Assistant.



GPT-3 vs ChatGPT

Price

GPT-3 (text-davinci-003) is \$0.02 / 1000 tokens

ChatGPT (gpt-3.5-turbo) is \$0.002 / 1000 tokens

Verbosity

ChatGPT is more verbose. Can be an issue with use cases such as generating code, where the model insists on explaining the code.

Hallucinations

ChatGPT is slightly better, including better at math. But still an issue.

Learning new tasks

GPT-3 is better at “few shot” learning like classification where examples are given.

ChatGPT is better at “zero shot” learning like classification where no examples are given.

Role playing

GPT-3 will role play with no issues.

ChatGPT sometimes reminds you that it's a language model.

Moderation and restraints

GPT-3 has little to no moderation. Developers are responsible for handling moderation, and can use Open AI's moderation endpoint.

ChatGPT cannot talk about inappropriate content or unethical behavior.



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ChatGPT system prompt

Below is the rough prompt used for chat.openai.com

```
You are ChatGPT, a large language model trained by OpenAI. Answer as concisely as possible. Knowledge cutoff: {knowledge_cutoff} Current date: {current_date}
```

🔴 Open AI states that the model sometimes forgets System Messages. Add important information in the User Message

Customizing GPT

1. Write a great prompt
2. Give GPT a few example inputs and outputs

```
input => "What is a good dog name?"  
output => "Princess because humans spoil their pets."
```

```
input => "What is a good cat name?"  
output =>
```

3. Create a fine tuned model
4. Add context dynamically to your prompt via an outside data source using embeddings

Using via API

1. Go to <https://platform.openai.com/account/api-keys>.
2. Create a new secret key. Save this. You can't access again.
3. Go back to the playground. Click "View Code"
4. Use these parameters in an API wrapper. Or use the code directly in your application.

Important settings

Completion Models

GPT-3 models can understand and generate language. Today's most powerful is text-davinci-003.

Codex models can understand and generate code.

Fine-tuned models are created by your organization.

Temperature

Controls randomness in the way responses are generated. Higher values are more random.

Max length

How many tokens can be used in the response.

Token = word chunk, about 750 words per 1000 tokens

GPT-3 and ChatGPT have a 4096 token limit, including the prompt.

Stop sequences

Used to stop GPT-3/ChatGPT from continuing on.

Popular stop sequences:

- \n for new lines
- ## for headings
- Question: for question and answer

Other settings

Mode*

- Complete - generates text to complete the input prompt
- Insert - generates text where [insert] tag is used
- Edit - takes existing text and rewrites based on instructions

Show Probabilities*

View the probability that a token was generated. Helpful for understanding and debugging generations.

Start Text*

Injects starting text after completion is finished. Useful for chat bot conversations.

Top P

An alternative to temperature for controlling randomness. Top P = 0.25 is less random than TopP = 1

Frequency Penalty

Reduces redundancy in answer by making it less likely to generate the same token based on how frequent is shows up so far.

Presence Penalty

Another method to reduce redundancy that penalizes based on presence of the token, not frequency.

Best Of*

Generates multiple versions of the completion on Open AI's server and sends you the best one.

* Not currently available in API



Open AI Models Cheat Sheet

GPT-3, ChatGPT (3.5), & GPT-4, Updated 3/15/23

THE AI EXCHANGE

GPT-3 (text-davinci-003)

ChatGPT (gpt-3.5-turbo)

GPT-4 (gpt-4 & gpt-4-32k)

Format	Send input, get output	Send chat messages, get output	Send chat or regular messages, get output
Useful settings	Temperature, Stop sequences, # of Completions	Temperature, Stop sequences, # of Completions	Not confirmed yet, but most likely the same
Max tokens	4,096 tokens	4,096 tokens	8,192 tokens & 32,768 tokens
Verbosity	Direct and specific	More verbose, because it was fine tuned for chat	Less verbose than ChatGPT, but more verbose than GPT-3
Access to internet	None	None	None
Accuracy and hallucinations	The lowest accuracy rating	Better than GPT-3 at math, but still not perfect	Significantly better at complex reasoning situations, math, and following instructions
Classification	Outperforms ChatGPT on few-shot classification [source]	Outperforms GPT-3 on zero-shot classification [source]	Outperforms ChatGPT on zero-shot and few-shot classification [source]
Ability to code	Yes, and will generate ready-to-use code	Yes, but will also <u>explain the code</u> which means the code needs to be parsed out	Yes, but will also explain the code which means the code needs to be parsed out
Role playing	Will role play without issue	Sometimes remembers that it's a large language model	Will adhere more closely to user instructions and system message (higher steerability)
Moderation and restraints	Very little moderation or restraints	Cannot talk about inappropriate content or unethical behavior.	Improved response to disallowed behavior by 83% from GPT-3.5 and improved responses to sensitive requests by 29%
Cost	\$0.02/1k tokens	\$0.002/1k tokens 1/10th the cost of GPT-3	8k context: \$0.03/1k prompt tokens, \$0.06/1k completion tokens 32k context: \$0.06/1k prompt tokens, \$0.12/1k completion tokens
Speed	Davinci takes an average of 1 minute to return response with 2048 tokens [source]	<u>"10x faster"</u> according to the internet so far	As of 3/15, GPT-4 has rate limits and delayed response time due to current capacity constraints
Modalities	Text inputs > text outputs	Text inputs > text outputs	Text & image inputs > text outputs
Where to access	Accessible via the Playground and API	Accessible via the Playground, API, and ChatGPT Free/Plus	As of 3/15, available via ChatGPT Plus and via API from waitlist
Knowledge cutoff	June 2021	September 2021	September 2021