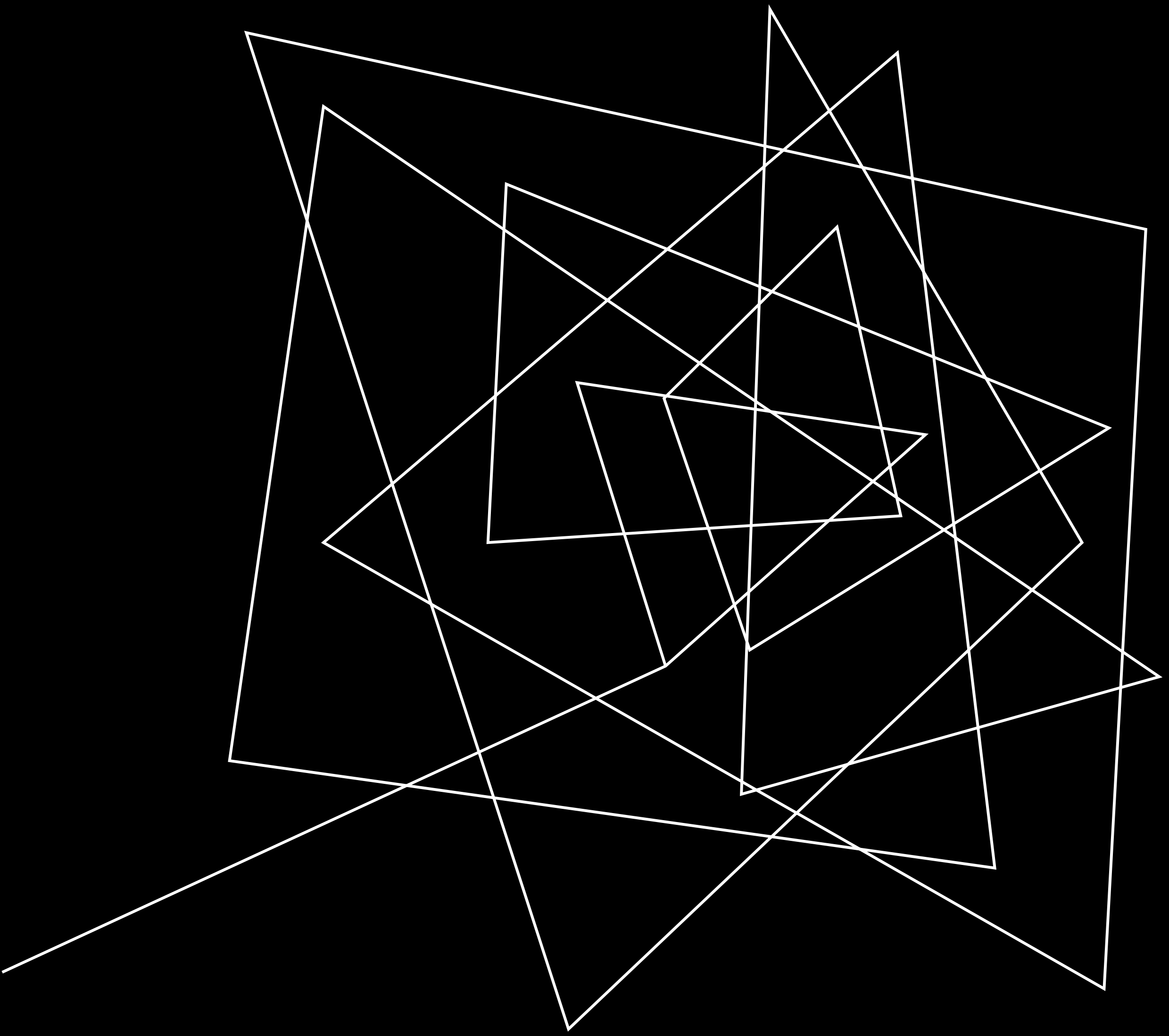
BEST PRACTICES FOR PROMPT ENGINEERING

with OpenAI API

HOW PROMPT ENGINEERING WORKS

Due to the way the instruction-following models are trained or the data they are trained on, there are specific prompt formats that work particularly well and align better with the tasks at hand. Below we present a number of prompt formats we find work reliably well, but feel free to explore different formats, which may fit your task best.



RULES OF THUMB & EXAMPLES

How to give clear and effective instructions to GPT-3 and Codex

RULES

Use Latest Model

- For best results, we generally recommend using the latest, most capable models. As of December 2022, the best options are the **“text-davinci-003”** model for text generation, and the **“code-davinci-002”** model for code generation.

Put instructions at the beginning of the prompt and use ### or """ to separate the instruction and context

- Less effective ✕ :

Summarize the text below as a bullet point list of the most important points.

{text input here}

- Better ☑:

Summarize the text below as a bullet point list of the most important points.

Text: """

{text input here}

"""

RULES

Be specific, descriptive and as detailed as possible about the desired context, outcome, length, format, style, etc

- Less effective ✗ :

  Write a poem about OpenAI.

- Better ☑:

Write a short inspiring poem about OpenAI, focusing on the recent DALL-E product launch (DALL-E is a text to image ML model) in the style of a {famous poet}

RULES

Articulate the desired output format through examples (example 1, example 2).

- Less effective ✕ :

Extract the entities mentioned in the text below. Extract the following 4 entity types: company names, people names, specific topics and themes.

Text: {text}

- Better ✓:

Extract the important entities mentioned in the text below. First extract all company names, then extract all people names, then extract specific topics which fit the content and finally extract general overarching themes

Desired format:
Company names: <comma_separated_list_of_company_names>
People names: -||-
Specific topics: -||-
General themes: -||-

Text: {text}

RULES

Start with zero-shot, then few-shot (example), neither of them worked, then fine-tune

- Zero-shot ☑:

Extract keywords from the below text.

Text: {text}

Keywords:

- Few-shot - provide a couple of examples ☑

Extract keywords from the corresponding texts below.

Text 1: Stripe provides APIs that web developers can use to integrate payment processing into their websites and mobile applications.

Keywords 1: Stripe, payment processing, APIs, web developers, websites, mobile applications

##

Text 2: OpenAI has trained cutting-edge language models that are very good at understanding and generating text. Our API provides access to these models and can be used to solve virtually any task that involves processing language.

Keywords 2: OpenAI, language models, text processing, API.

##

Text 3: {text}

Keywords 3:

RULES

Start with zero-shot, then few-shot (example), neither of them worked, then fine-tune

- Fine-tune: see fine-tune best practices ✅:

Best practices to classifying text with fine tune models: https://github.com/naashonomics/openai/blob/main/Classification%20best%20practices.docx

Code: openai-cookbook/Fine-tuned_classification.ipynb at main · openai/openai-cookbook · GitHub

OPENAI Documentation: Fine-tuning - OpenAI API

Reduce “fluffy” and imprecise descriptions

- Less effective ✖:

The description for this product should be fairly short, a few sentences only, and not too much more.

- Better ✅:

Use a 3 to 5 sentence paragraph to describe this product.

RULES

Instead of just saying what not to do, say what to do instead

Less effective ✕ :

The following is a conversation between an Agent and a Customer. DO NOT ASK USERNAME OR PASSWORD. DO NOT REPEAT.

Customer: I can’t log in to my account.

Agent:

- Better ☑:

The following is a conversation between an Agent and a Customer. The agent will attempt to diagnose the problem and suggest a solution, whilst refraining from asking any questions related to PII. Instead of asking for PII, such as username or password, refer the user to the help article www.samplewebsite.com/help/faq

Customer: I can’t log in to my account.

Agent:

RULES

Code Generation Specific - Use “leading words” to nudge the model toward a particular pattern

Less effective ✕ :

```
# Write a simple python function that
# 1. Ask me for a number in mile
# 2. It converts miles to kilometers
```

- Better ☑ :

```
# Write a simple python function that
# 1. Ask me for a number in mile
# 2. It converts miles to kilometers

import
```