



CHATGPT & GPT4.0 API: TRAINING TECHNOLOGY WORKERS FOR ENHANCED DAILY WORK

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SESSION OVERVIEW

ChatGPT is a revolutionary tool that helps workers enhance their daily work. After a quick review of what ChatGPT is, our training session will provide some hands-on examples of useful prompts starting with basic text refinement, some "Act As" examples, as well as API calls using Python for GPT4.0 and other OpenAI models.





CHATGPT BASICS



What is ChatGPT?

ChatGPT is a large language model for natural language processing and generation.



Benefits of ChatGPT

ChatGPT provides the ability to provide quick, accurate and personalized responses to queries and problems.



How to Use ChatGPT

Type your question or message in the chat box and ChatGPT will generate a response in natural language.

ChatGPT/GPT-4 is powerful technology that can help workers improve their daily work and increase their productivity.



- ✓ Use these tools to create initial or draft work, not final product

The outputs generated by large language models are only as reliable as the data they were trained on. It is important to understand where the data comes from and what biases may be present in it. In addition, it is important to consider the expertise of the creators of the model.

- ✓ Verify the accuracy of the outputs before using them.

It is important to verify the accuracy of the outputs before using them for important work-related tasks. This can involve checking the outputs against existing data or consulting with subject matter experts

- ✓ Protect sensitive information when using the models.

Large language models can be trained on sensitive data, such as personal or proprietary information. It is important to ensure that such data is protected when using these models for work-related tasks, and that any outputs generated from the models do not inadvertently disclose this information.



- 1 Draft an email or other piece of writing
- 2 Write Python code or SQL statements
- 3 Tutor in a range of subjects
- 4 Translate languages
- 5 Answer questions about a set of documents
- 6 Create conversational agents

**Powerful functionality examples
referenced in OpenAI documentation**

The background of the slide features a laptop with a vibrant sunset or sunrise image on its screen. The laptop is positioned diagonally, and its keyboard is visible. A semi-transparent grey rectangular box is overlaid on the left side of the laptop, containing the section title and subtitle. The overall lighting is dark, with the laptop's screen providing the primary light source.

SECTION 1: CHATGPT TEXT REFINEMENT PROMPTS

TEXT REVISION, TRANSLATION, PARSING,
SOFTWARE ASSISTANCE, AND 'ACT AS'

TEXT REFINEMENT - PART 1

These live demo sample prompts can be copied and pasted into ChatGPT to view the results



Revise your communication for tone or clarity

Please provide 5 alternative word choices for the following sentence to make it more engaging:
"The training covered a lot of material, but it was dry and uninteresting."



Data Scrubbing

Extract all email addresses for me: Jal poz ingri norqui tom@gmail.com, at jack@quickref.me omin. 18261@outlook.com lut eros



Excel formula creation

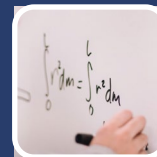
I need to create an Excel formula that calculates the average of cells B1 to B10 and inserts the result in cell C1. Can you help me with that?



Language translation

Translate the follow text into Spanish:
"To access the 'Upstream App', open an internet browser such as Internet Explorer or Chrome and enter the web address below into the search bar of the browser. You may also access the web app away from the office through a VPN connection."

Includes over 40 languages such as English, Spanish, French, German, Italian, Portuguese, Chinese, Japanese, Korean, Arabic, Hindi, Russian, Dutch, Finnish, Polish, Swedish, and Turkish

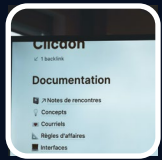


Excel formula definition

Can you explain the meaning of the formula
=SUM(A1:A10) in simple terms?

TEXT REFINEMENT - PART 2

These sample "**Act As**" prompts can be copied and pasted into ChatGPT to view the results



Technical documentation writer

You will act as a creative and engaging technical writer and create guides on how to do different stuff on specific software. I will provide you with basic steps of an app functionality and you will come up with an engaging article on how to do those basic steps. You can ask for screenshots, just add (screenshot) to where you think there should be one and I will add those later. These are the first basic steps of the app functionality:

"1. Click the URL received in the email to open the login page 2. Login using your Windows username and password including the domain 3. Click OK on IT Security pop-up to begin using the app"
(**replaced underlined part for your steps**)



Esri solutions provider

Act as an expert Esri solutions provider with experience deploying, upgrading, and enhancing Enterprise GIS solutions. After reviewing the following computing environment, please provide a list of best practice steps for upgrading to ArcGIS Enterprise 11. Include steps for the desktop and web environment and rollback options.

Application server: Windows Server 2016 64-bit named azu-gisprod-01, Database server: MS SQL Server name azu-sqlprd-01, Esri software: ArcGIS Enterprise 10.9.1, ArcGIS Desktop 10.8.1, ArcGIS Pro 3.0.0 (**replace underlined part for your target environment**)



SECTION 2: ACCESSING THE LATEST OPENAI MODELS USING PYTHON

EASILY INTEGRATE GPT4.0, WHISPER, AND DALL-E
INTO YOUR APPS OR CUSTOMIZATIONS

OPENAI API DATA USAGE POLICIES

❖ Starting on March 1, 2023

OpenAI will not use data submitted by customers via their API to train or improve our models, unless you explicitly decide to share your data with us for this purpose.

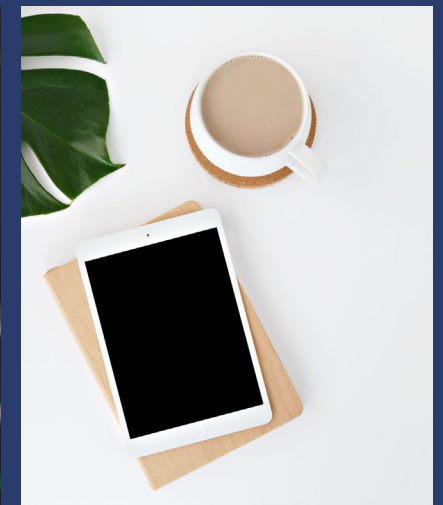
Any data sent through the API will be retained for abuse and misuse monitoring purposes for a maximum of 30 days, after which it will be deleted (unless otherwise required by law).

❖ Data Retention

OpenAI retains API data for 30 days for abuse and misuse monitoring purposes. A limited number of authorized OpenAI employees, as well as specialized third-party contractors that are subject to confidentiality and security obligations, can access this data solely to investigate and verify suspected abuse.

❖ Remove identifying or proprietary information

Avoid using private or proprietary information when using ChatGPT or GPT-3.5 API to prevent unauthorized access or misuse of sensitive data. It is important to ensure that the data used for training and generating responses is not confidential, proprietary, or personally identifiable information (PII).



USING THE OPENAI APIS WITH PYTHON

The OpenAI API uses API keys for authentication. Visit your [API Keys](#) page to retrieve the API key you'll use in your requests.



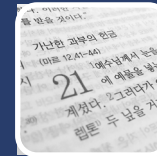
GPT4.0 API Request

With the GPT-4 API Request, developers can send requests to the GPT-4 API endpoint using Python and receive text-based responses that can be used for a variety of applications.



DALL-E API Request

Developers can send requests to the DALL-E API endpoint using Python and receive generated images as responses.



Whisper API Request

Transcribes audio into the input language.

GPT4.0 API REQUEST

Models can be changed depending on task. **Model code-davinci-002 is proficient in over a dozen languages including JavaScript, Go, Perl, PHP, Ruby, Swift, TypeScript, SQL, Python and even Shell**

```
*GPT3_5_API_Request.py - G:\
\GPT3_5_API_Request.py (3.7.11)*
File Edit Format Run Options Window Help
import openai
openai.organization = "org-YOUR_ORG_KEY"
openai.api_key = "YOUR_OPENAI_KEY"

## see model options here: https://platform.openai.com/docs/models

## Chat completion ("gpt-3.5-turbo-0301", "gpt-3.5-turbo")
## Code completion ("code-davinci-002") They're most capable in Python and proficient in over a dozen
## languages including JavaScript, Go, Perl, PHP, Ruby, Swift, TypeScript, SQL, and even Shell.

completion = openai.ChatCompletion.create(model="gpt-3.5-turbo", \
    messages=[{"role": "user", "content": "Describe 10 of the best GPT prompts that would be useful for energy sector back office technology workers"}])

print(completion)
```

```
Command Prompt
G:\
\03-06-2023\openai-quickstart-python>C:\Users\jason\AppData\Local\Programs\Python\Python311\python.exe GPT3_5_API_R
equest.py
{
  "choices": [
    {
      "finish_reason": "stop",
      "index": 0,
      "message": {
        "content": "\n\n1. \nGenerate a report analyzing energy consumption trends in the past year and predict future demand.\n\n2. \nDevelop a modeling too
l for optimizing energy distribution among customers and increasing efficiency.\n\n3. \nCreate an algorithm for detecting anomalies in energy usage patterns
and identifying potential issues.\n\n4. \nBuild a system for automating customer billing and payments to increase accuracy and timeliness.\n\n5. \nDesign a
dashboard for visualizing key performance indicators and monitoring energy grid reliability.\n\n6. \nDevelop a predictive maintenance system to reduce downt
ime and increase equipment lifespan.\n\n7. \nCreate a tool for analyzing renewable energy sources and optimizing their integration into the grid.\n\n8. \nB
uild a demand response automation system to manage peak usage and avoid blackouts.\n\n9. \nDesign an energy efficiency audit tool to identify opportunities f
or reducing energy consumption.\n\n10. \nDevelop a blockchain-based energy trading platform to facilitate peer-to-peer transactions and increase market effic
iency.\n",
        "role": "assistant"
      }
    }
  ],
  "created": 1678196560,
  "id": "chatcmpl-6",
  "model": "gpt-3.5-turbo-0301",
  "object": "chat.completion",
  "usage": {
    "completion_tokens": 185,
    "prompt_tokens": 27,
    "total_tokens": 212
  }
}
```

Chat Completion Response

DALL-E API REQUEST

The [image generations](#) endpoint allows you to create an original image given a text prompt. Generated images can have a size of 256x256, 512x512, or 1024x1024 pixels. Smaller sizes are faster to generate. You can request 1-10 images at a time using the `n` parameter

```
*DALLE_API_Request.py - G:\
DALLE_API_Request.py...
File Edit Format Run Options Window Help
import openai
openai.organization = "org-YOUR_ORG_KEY"
openai.api_key = "YOUR_OPENAI_KEY"

response = openai.Image.create(
    prompt="a realistic crotcheted squirrel knitting a pair of socks",
    n=1,
    size="1024x1024"
)
image_url = response['data'][0]['url']
print(image_url)
Ln: 3 Col: 33
```

```
G:\03-06-2023\openai-quickstart-python>C:\Users\jason\AppData\Local\Programs\Python\Python311\python.exe DALLE_API_Request.py
https://oaidalleapiprodscus.blob.core.windows.net/private/org-CkruQd7Qx0ig3mKPi4ArY9t0/user-Wt6l14zNEQ6fNaUIbWw5gat8/img-2DJHzVp1XnK3MT83aNvkfQhn.png?st=2023-03-07T16%3A25%3A10Z&se=2023-03-07T18%3A25%3A10Z&sp=r&sv=2021-08-06&sr=b&rscd=inlin
e&rscd=image/png&skoid=6aaadede-4fb3-4698-a8f6-684d7786b067&sktid=a48cca56-e6da-484e-a814-9c849652bcb3&skt=2023-03-07T16
%3A20%3A14Z&ske=2023-03-08T16%3A20%3A14Z&skv=2021-08-06&sig=zJSyy0KvGU7n%2Bj1n15uqRJ1dSez2dKnGT81AriZ0rKw%3D

G:\03-06-2023\openai-quickstart-python>
```

Create Image Response (URL)

WHISPER API REQUEST

Input file formats include mp3, mp4, mpeg, mpga, m4a, wav, or webm. Defining the input language in ISO-639-1 format will improve accuracy and latency

```
*Whisper_API_Request.py - G:\
\Whisper_API_Request.py (...)
File Edit Format Run Options Window Help
import openai
openai.organization = "org-YOUR_ORG_KEY"
openai.api_key = "YOUR_OPENAI_KEY"

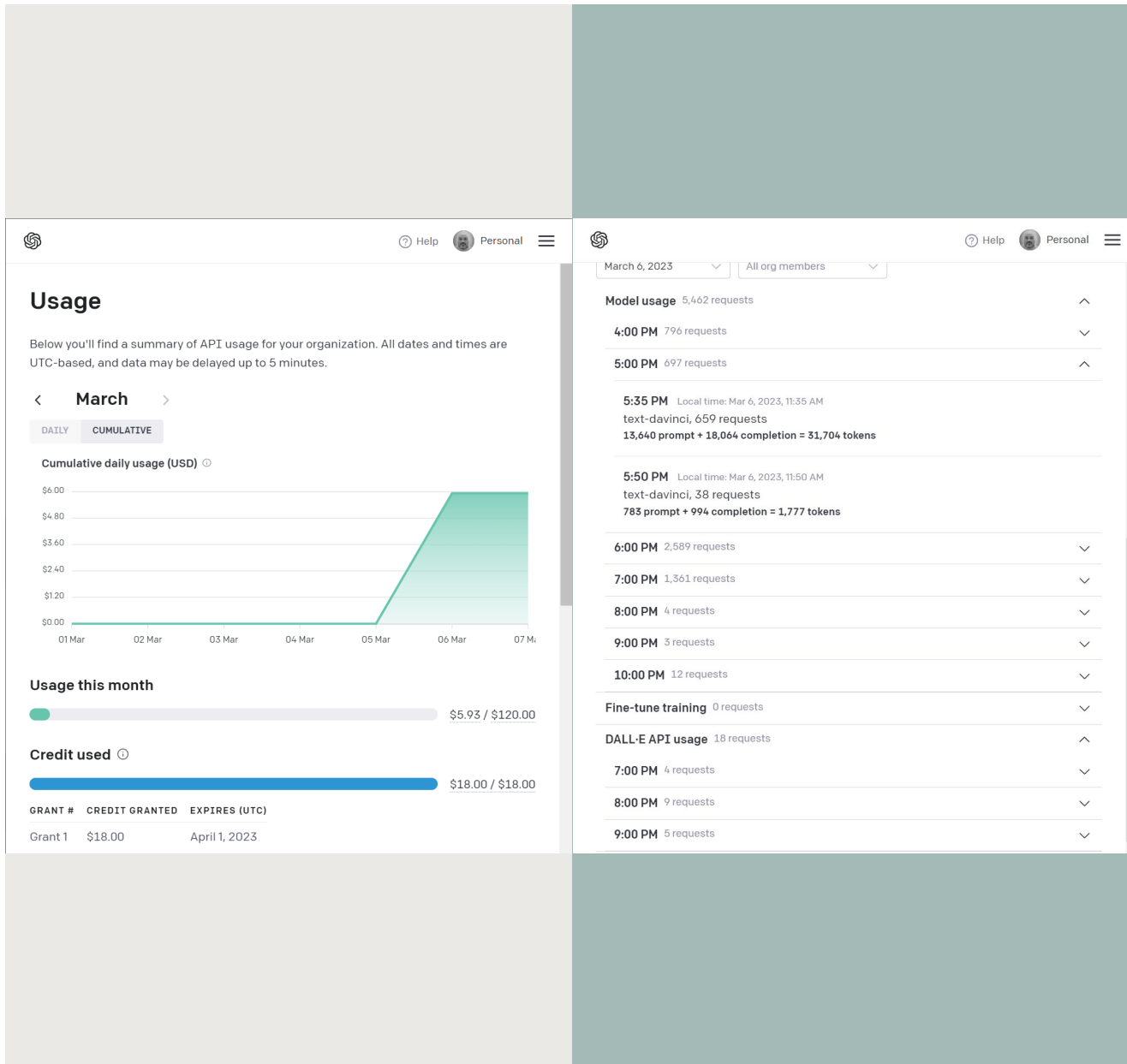
file = open("5_Secrets_to_Writing_with_Chat_GPT_Use_Responsibly.mp3", "rb")
transcription = openai.Audio.transcribe("whisper-1", file)

print(transcription)
```

Ln: 3 Col: 33

```
Command Prompt
{
  "text": "Buckle up, because this is going to be huge for you. No, I mean it. This one is actually a game-changer. Chat GPT is a true superpower when it comes to writing. And getting started and using it as your assistant writer is not very hard. But there's several hidden prompts and formulas that you really need to know about to get the most out of it. And at the end of the day, if you're using Chat GPT, you already have a competitive advantage. But even within that, this content will give you another advantage over all the typical, I'm a large language model, answer receivers. And first, I want to begin with a use case that you've probably already seen, and that's asking to write an essay. But I need you to start thinking differently about this, because this is what Chat GPT really sees in the background. And if you see the formula written out like this, it allows you to craft prompts that are completely unique to you. And then you can start expanding it with building blocks like in the style of, and then you insert the style. And this is really the key to becoming a little more advanced here. Okay, and here a quick tip on a few things you could insert instead of the variables. Instead of essay, you could say poem, blog article, or song. And instead of Hemingway, you could pretty much pick most public personalities that have published a large body of work. This could range all the way from philosophers and religious figures to comedians like Dave Chappelle. Okay, now that you understand the basic writing prompt, I want to show you some tricks and keywords that will help you to get the most out of your writing. I'll just pick the first paragraph in Wikipedia of my favorite artist, and we'll use some of these keywords here. So when I insert it into Chat GPT and put it into quotation marks, one fantastic keyword here is rephrase. What that will do is express the same ideas in a different tone. Now, yes, this could easily be abused to plagiarize, but I'm not here to judge the ethical implications. I'm simply showing what is possible with this technology. And as you can see here, it turns the Wikipedia article into an almost original piece of text, kind of. And if I use a basic plagiarism checker and first check for the Wikipedia article and then for the Chat GPT output after I rephrased it, this is what I get. The Wikipedia article is 80% plagiarized, obviously. Actually, kind of surprising that it's not 100, right? And as you can see, the Chat GPT output gets a 100% unique rating. Now, look, I'm fully aware that universities have more complex plagiarism checkers, but the point is that the keyword rephrase is pretty damn powerful. Okay, so the next super powerful prompt right here focuses on a different aspect of writing. A lot of times when you write, you first have to research. And in order to research, you need to absorb information. And if you do a work well, you absorb a lot of information, like a book. That would also be a typical school assignment, wouldn't it? I could just go ahead and say, provide me with an outline for the book, The Old Man and the Sea. By the way, I read that and so should you. Incredible book. But let's see what Chat GPT can do here. Excellent work, honestly. So as you can see, provide me with an outline is an extremely powerful prompt because you could run this on books, articles, or even transcripts that you feed it yourself. And you can always go in and say, elaborate on a second point. Santiago sets out to sea early one morning, hoping to catch a big fish and end his streak of 84 days without a catch. And then in the end, overall, Santiago's struggle with the fish serves as a metaphor for the human struggle to overcome challenges and persevere in the face of adversity. Legendary story worth reading, but also a very useful prompt. Okay, so here's one that you could totally use for learning purposes when working with a young person. Let's say they write a text and they use pretty basic vocabulary. Yesterday, I went to school. It was really fun. Me and my friends had lunch and then we played cards. Now instead of explaining to that person, hey, maybe you could string these together or maybe you could use more advanced words or adjectives, simply put this in quotation marks and tell Chat GPT the following. Replace my simple vocabulary with advanced English. Yesterday, I visited school. The experience was quite enjoyable. My friends and I shared a meal together and afterwards engaged in a game of cards. And honestly, using a tool like this, this is one of the better ways to communicate with a human being. You can take input that they generated and show them instantly how else this could be approached. And as per usual, you can follow up with, now write it in the style of a video game dialogue and instantly picks a tone of voice that resonates with young people. If you appreciate this content, hit that like button for me. But now let's move on to the next point. All right, and here's my last one and buckle up because this is going to be huge for you. No, I mean it. This one is actually a game changer. Act as a professional spelling and grammar corrector and improver. Sure, I'd be happy to help. Please provide the text. And now we'll completely butcher this and see what it can do. Okay, okay, let's just submit this and see what we get. That is perfect. And here's one bonus tip. Now write that in the style of a Pulitzer Prize winner. If you didn't know Pulitzer Prizes are literary Oscars. Greetings, dear sir or madam. As a connoisseur of the English classic Coca-Cola? Pretty cool. And as previously mentioned, you can think of you think about it. Because act as a professional spelling and grammar corrector right away you can start talking to a psychologist or electrician. And all these had in common is that they took a different approach to communication in certain ways superior to what humans can know. But then there's other best of both worlds, your intuition, emotional intelligence, and knowledge to show you five prompts. But the truth of the matter is there is so much more you can get the maximum out of this revolutionary technology. It's completely free and trust me, I'll make sure it's the opposite of spam. Meanwhile, here's a video with even more creative prompts and as per usual, put these to work responsibly."
}
```

Create Transcription Response - json/Text



TRACK API COST AND USAGE AS YOU WORK

You'll find a summary of API usage for your organization

at <https://platform.openai.com/account/usage>

All dates and times are UTC-based, and data may be delayed up to 5 minutes.



“GENERATIVE AI TECHNOLOGY
LIKE **CHATGPT** IS THE FUTURE FOR
TECHNOLOGY WORKERS, ENABLING
THEM TO WORK SMARTER AND MORE
EFFICIENTLY EVERY DAY.”

LET'S GET STARTED

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<https://www.cartodyne.com>



281-213-0165



<https://www.linkedin.com/company/cartodyne>



CARTODYNE