

The Prompt Engineer Course



1. Introduction to ChatGPT and Generative AI
2. Crafting Quality Prompts
3. Optimizing Prompts for ChatGPT
4. Other Generative AI Models and Use Cases

Introduction to ChatGPT and Generative AI

Understanding Generative AI Models and Their Architecture

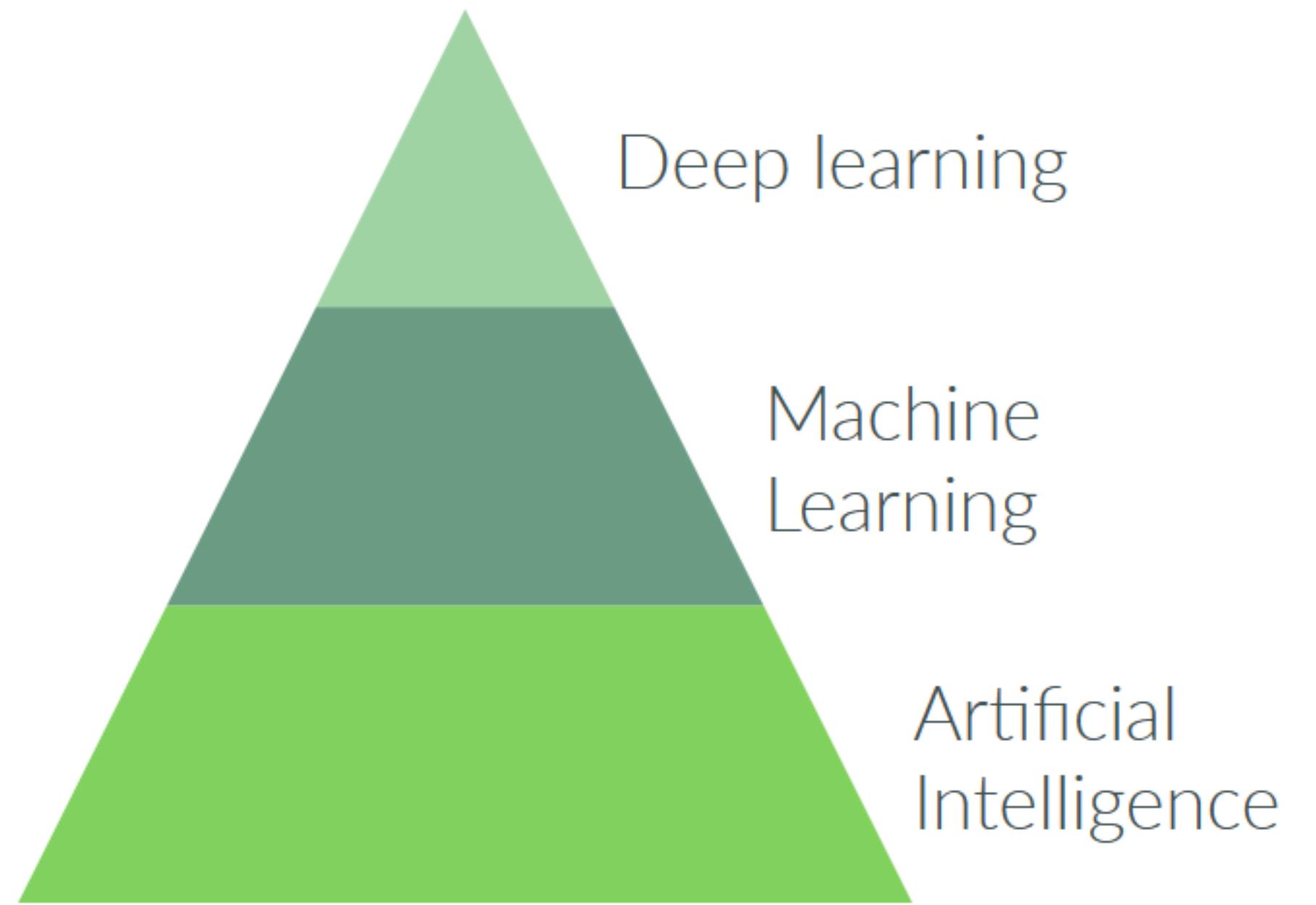


Introduction to ChatGPT and Generative AI : Outline

1. Artificial Intelligence, Machine Learning, and Deep Learning
2. Generative AI Models and Architecture
3. Introduction to ChatGPT
4. Applications of Generative AI

Artificial Intelligence, Machine Learning, and Deep Learning

1. Artificial Intelligence (AI) : The development of computer systems that can perform tasks typically requiring human intelligence
2. Machine Learning (ML) : A subset of AI that focuses on the development of algorithms that can learn and improve from data
3. Deep Learning (DL) : A subset of ML that uses artificial neural networks to model complex patterns and representations in data



Introduction to ChatGPT and Generative AI : Outline

- ✓ Artificial Intelligence, Machine Learning, and Deep Learning
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Generative AI Models and Architecture

Outline

- What is Generative AI Models ?
- Generative models vs Discriminative models
- Natural Language Processing (NLP)
- Neural Networks Architecture in NLP
- Key Concepts of NLP

Generative AI Models and Architecture

What is Generative AI Models ?

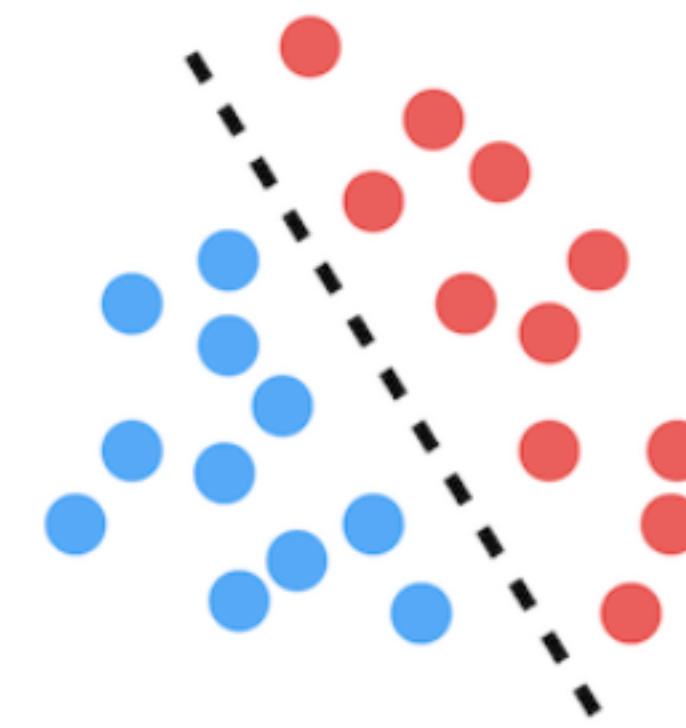
Generative AI Models is a class of artificial intelligence models that generate new data samples by learning the underlying patterns, structure, or distribution of a given dataset. These models are capable of creating diverse and realistic outputs, such as images, text, or music, by capturing the essential characteristics of the input data.



Generative AI Models and Architecture

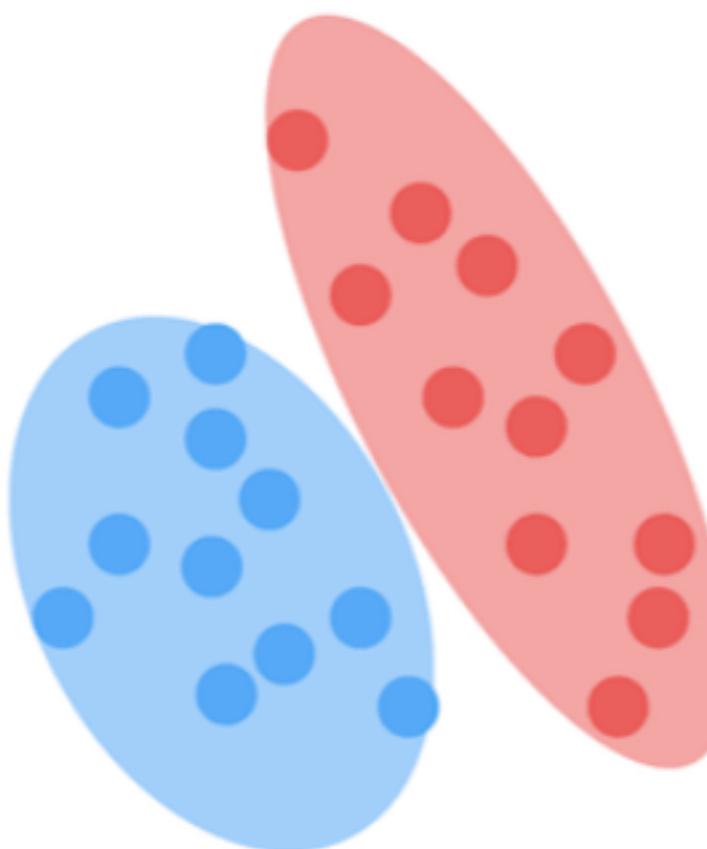
Generative models vs Discriminative models

Discriminative



Ignore distribution, focus on
decision boundary for
predict new incoming data

Generative



Focus on distribution for
Create new data from
distribution of dataset



Generative AI Models and Architecture

Natural Language Processing (NLP)

Field of AI focusing on
understanding, interpreting, and
generating human language

Generative AI Models and Architecture

Natural Language Processing (NLP)

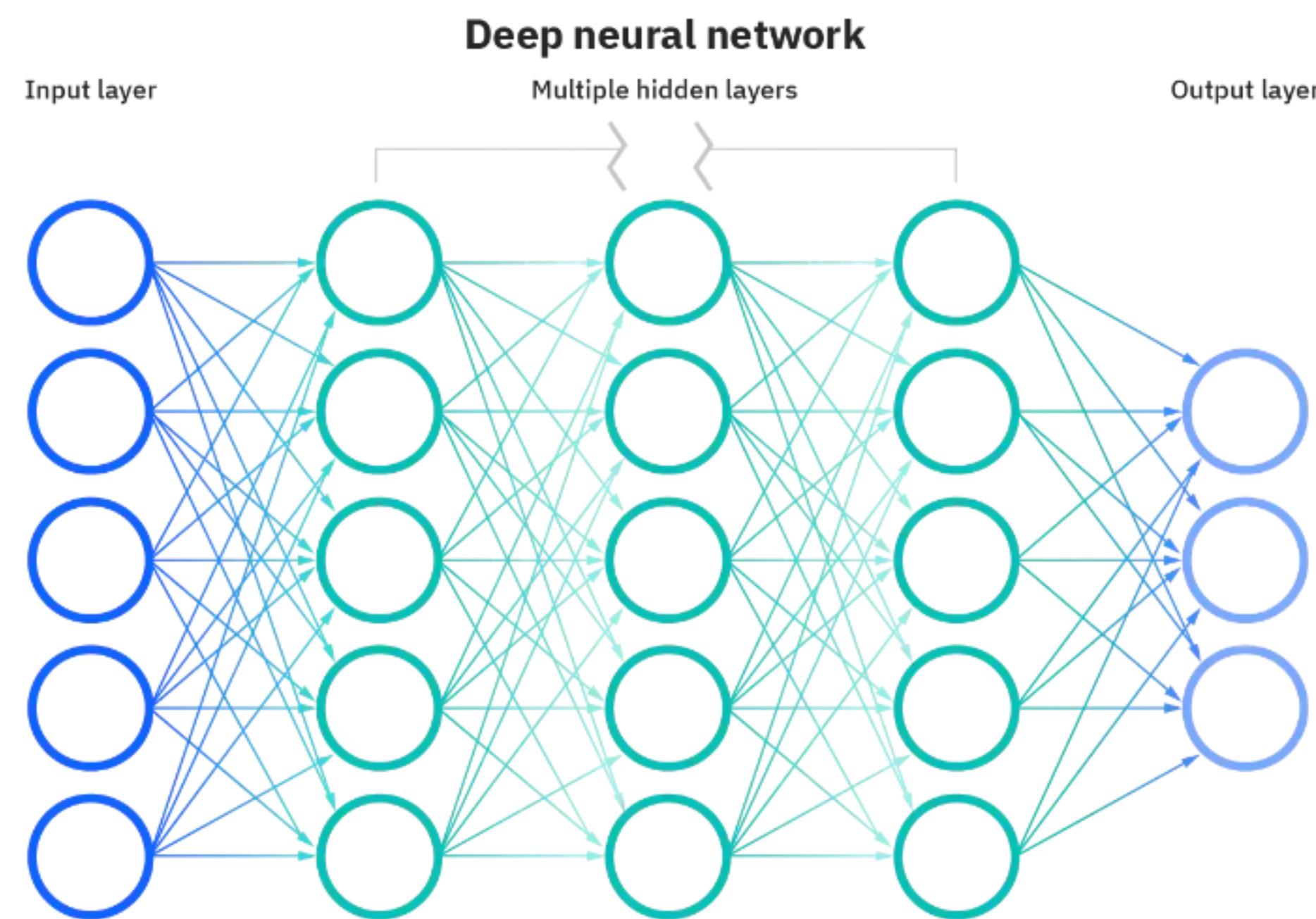
NLP tasks

- Sentiment analysis
- Machine translation
- Text summarization
- Question-answering
- Etc.

Generative AI models like ChatGPT are designed to generate human-like text in response to given prompts

Generative AI Models and Architecture

Neural Networks Architecture in NLP





Generative AI Models and Architecture

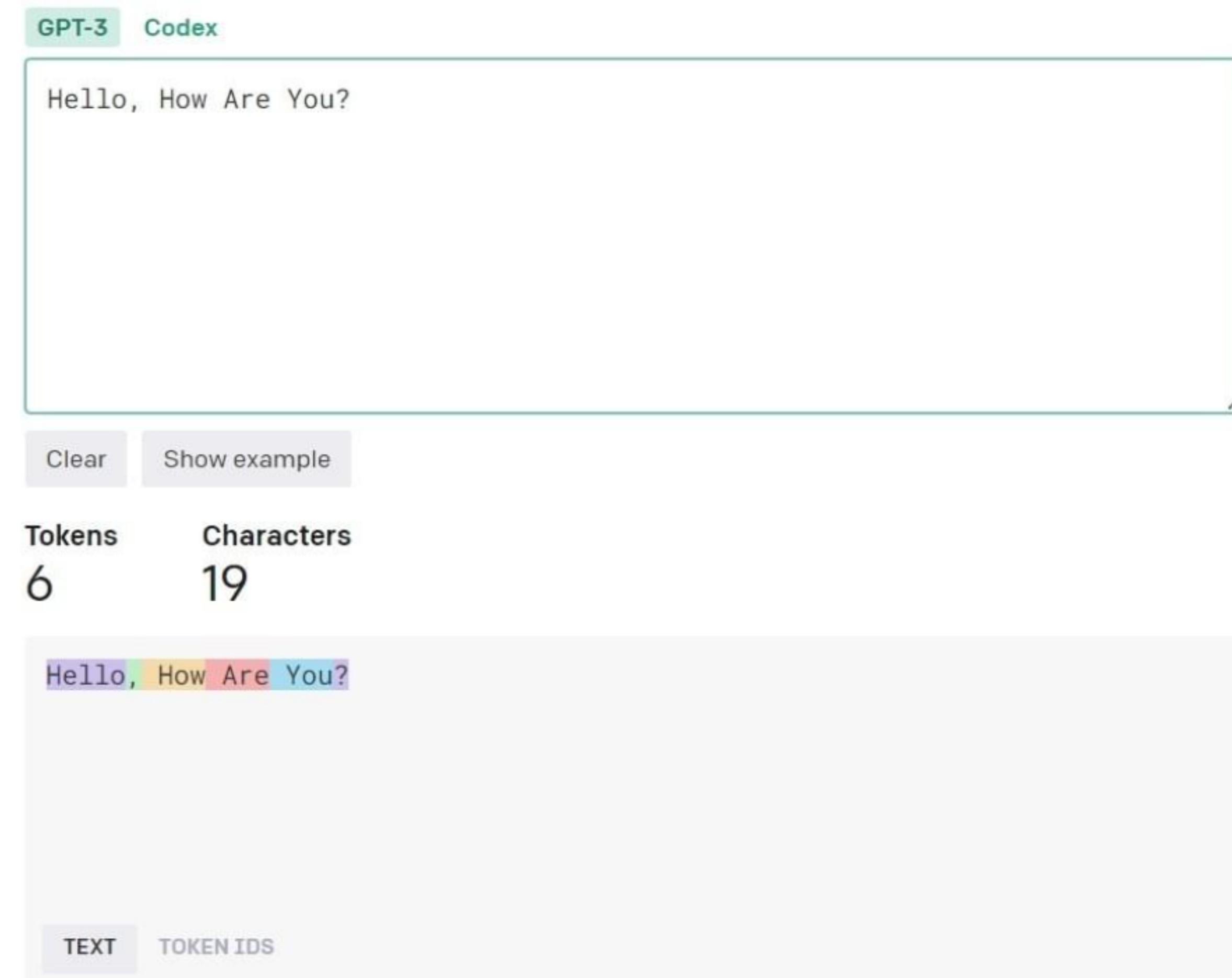
Neural Networks Architecture in NLP

- Recurrent Neural Networks (RNNs) : Good for sequential data, limited memory and vanishing gradient issues
- Long Short-Term Memory (LSTMs) : Improved memory capabilities, handles long sequences better
- Transformers: Attention mechanism, parallel processing, state-of-the-art performance

Generative AI Models and Architecture

Token

Tokens: Smallest units of text, used to represent words, characters, or subwords





Introduction to ChatGPT and Generative AI : Outline

- ✓ Artificial Intelligence, Machine Learning, and Deep Learning
- ✓ Generative AI Models and Architecture

3. Introduction to ChatGPT

4. Applications of Generative AI



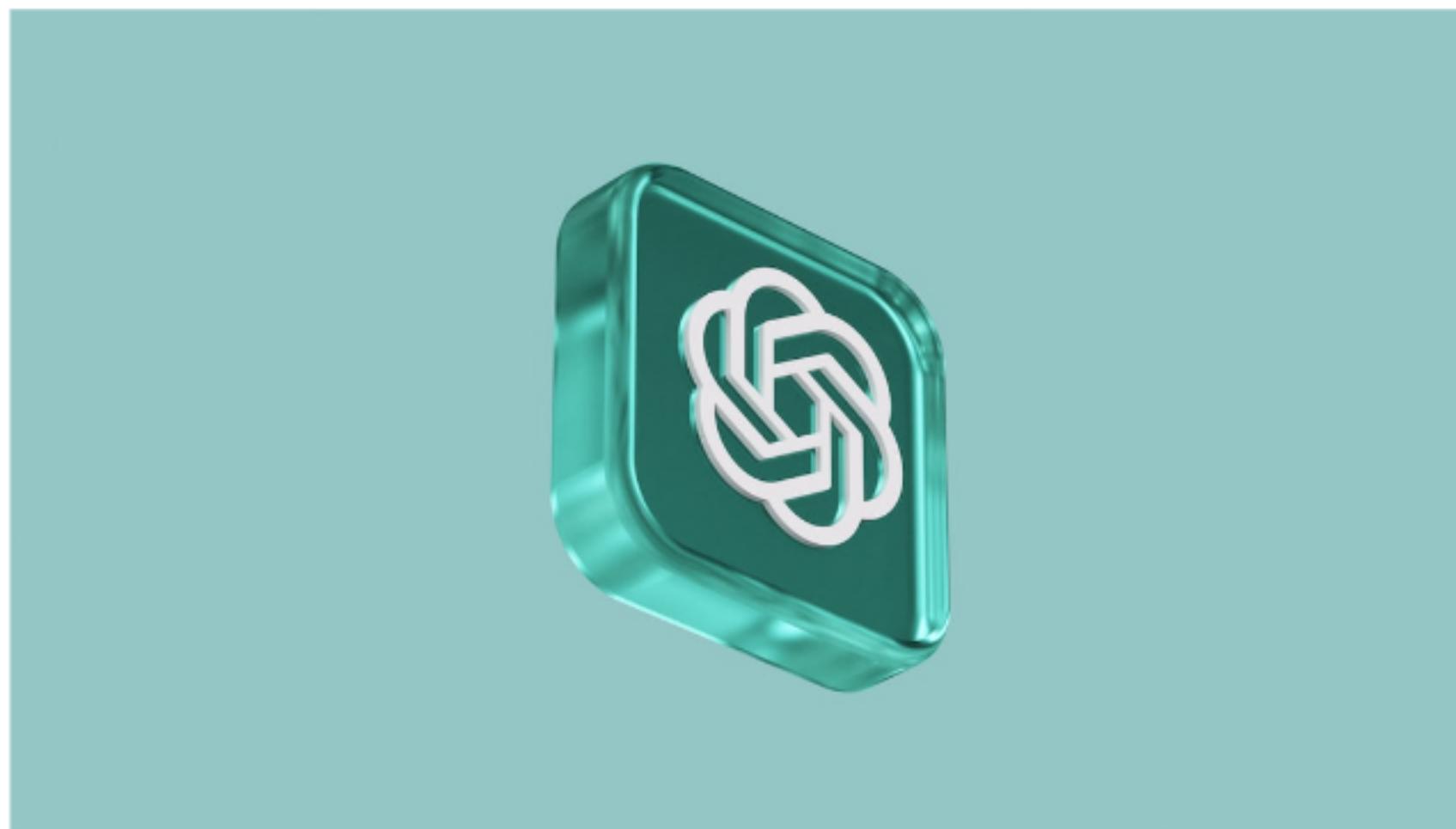
Introduction to ChatGPT

Outline

- What is ChatGPT ?
- Evolution of ChatGPT
- ChatGPT architecture
- Strengths and limitations of ChatGPT

Introduction to ChatGPT

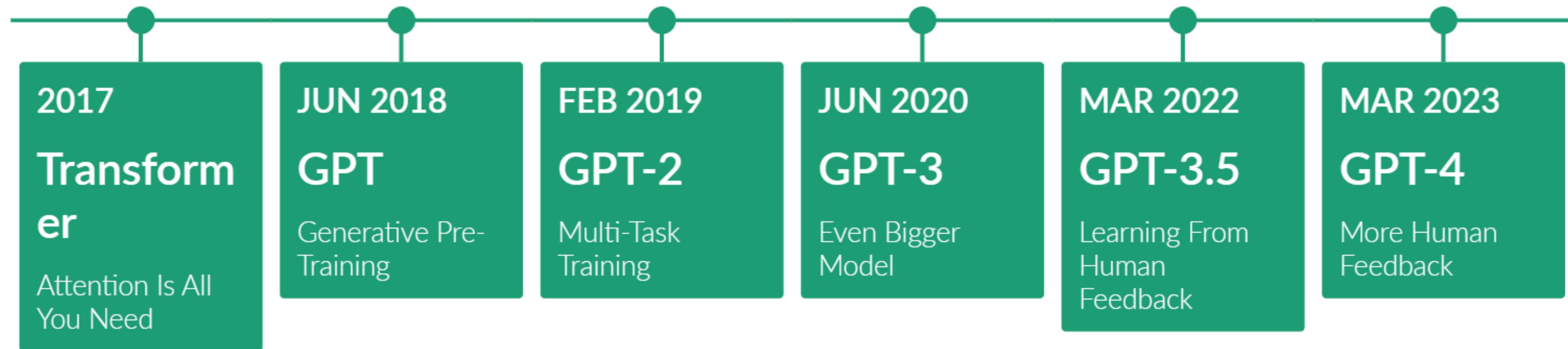
What is ChatGPT ?



ChatGPT is an advanced AI language model by OpenAI that assists with tasks like answering questions and engaging in conversation

Introduction to ChatGPT

Evolution of ChatGPT



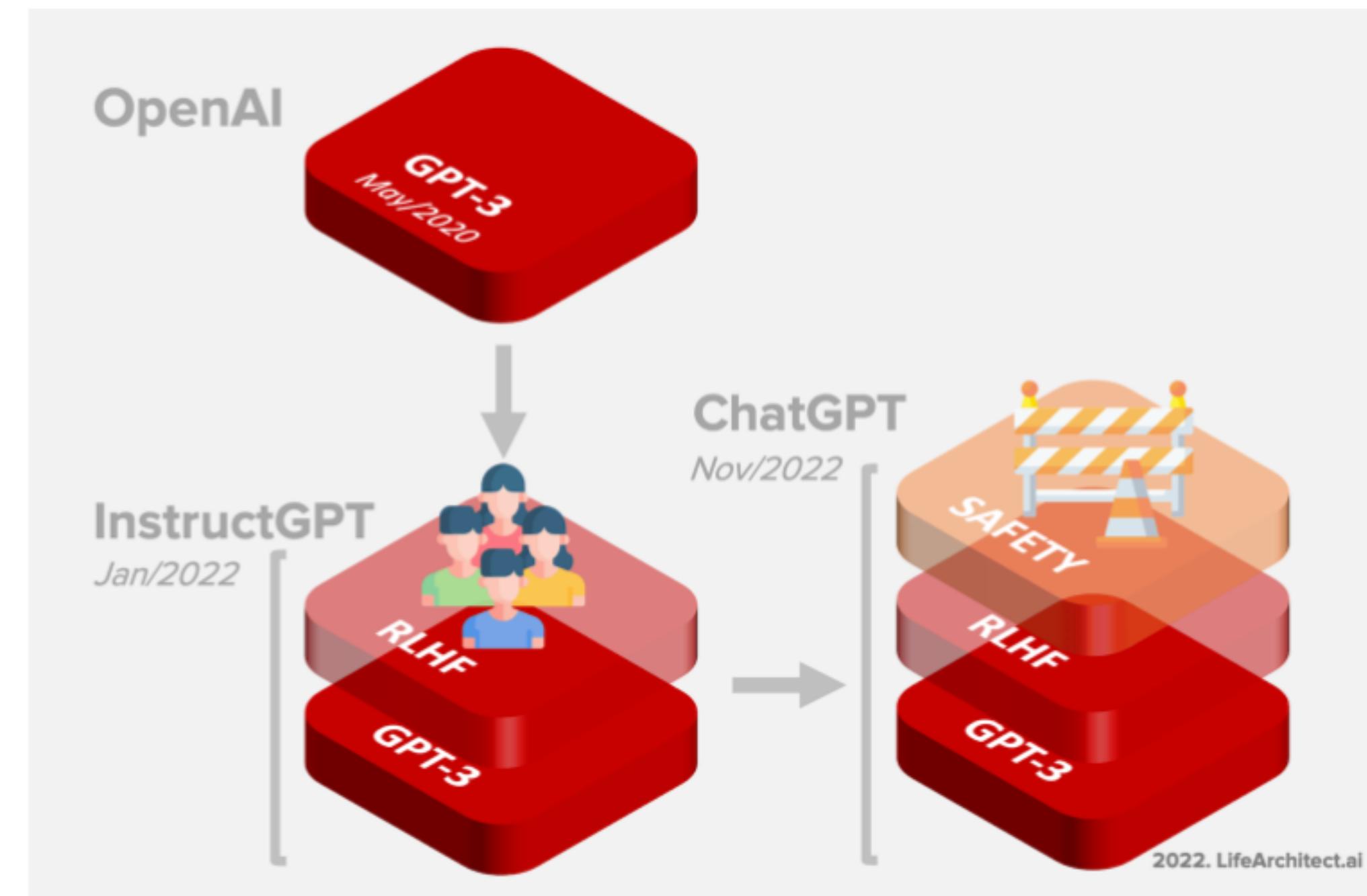
Introduction to ChatGPT

Evolution of ChatGPT

Name	Year	Improvements	Capacity	Parameters
GPT	2018	Initial Release	Basic language understanding, limited context, short memory	117M
GPT-2	2019	Enhanced context understanding, larger model	Better context understanding, more coherent text generation	1.5B
GPT-3	2020	Few-shot learning, more sophisticated language	High-quality text generation, broader language understanding	175B
GPT-3.5 (InstructGPT)	2021	Fine-tuned for chat-based applications, human feedback	Improved conversation quality, versatile chat-based AI	175B
GPT-4 (ChatGPT)	2023	Enhanced language, knowledge, reasoning	Improved reasoning, advanced context handling, deeper knowledge	1T

Introduction to ChatGPT

ChatGPT architecture





Introduction to ChatGPT

Strengths and limitations of ChatGPT

Strengths

- Strong language understanding
- Versatility
- Improved conversational capabilities

Limitations

- Lack of common sense
- Lack of real-world knowledge updates
- Lack of logical reasoning

Introduction to ChatGPT and Generative AI : Outline

- ✓ Artificial Intelligence, Machine Learning, and Deep Learning
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- ✓ Introduction to ChatGPT

4. Applications of Generative AI

Applications of Generative AI

Healthcare

- Drug discovery
- Personalized medicine
- Diagnostics

Finance

- Fraud detection
- Risk assessment
- Investment strategy

Marketing and Advertising

- Personalized ads
- Content generation
- Customer insights

Manufacturing

- Quality control
- Process optimization
- Supply chain management

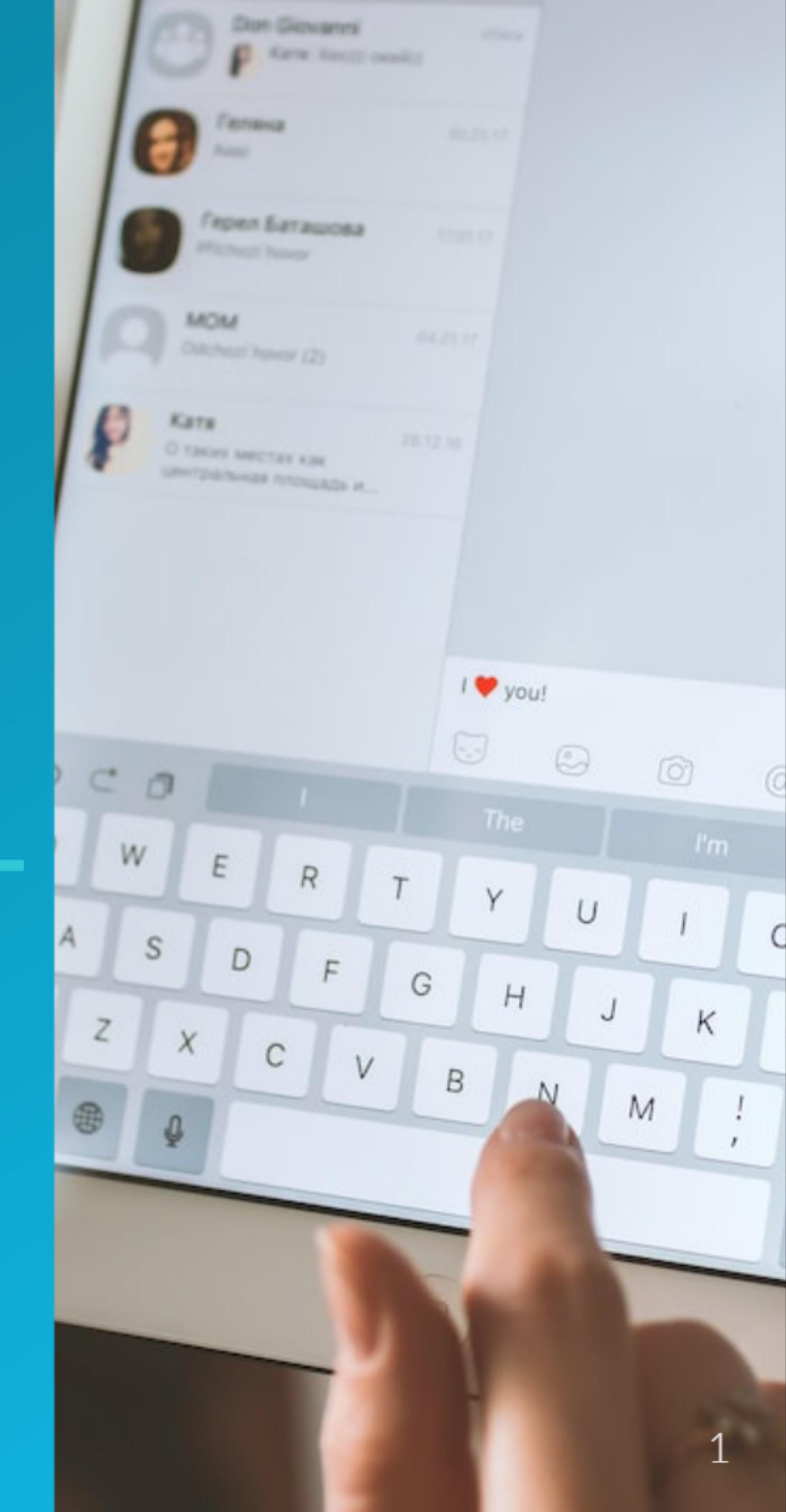


Introduction to ChatGPT and Generative AI : Outline

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- ✓ Applications of Generative AI

Crafting Quality Prompts

Crafting Effective Prompts for AI Models



Crafting Quality Prompts : Outline

- Prompt Engineering Importance
- Quality Prompt Components
- Open-Ended versus Closed-Ended Prompts
- Crafting Prompt Techniques
- Avoid Prompt Creation Mistakes
- Examples: Effective vs. Ineffective Prompts



Prompt Engineering Importance

- Role of Prompts in Generative AI Models
- What is Prompt engineering ?
- The Necessity of Effective Prompts



Role of Prompts in Generative AI Models

Prompts act as input for AI models, providing context and instructions that help the model understand the user's intent and generate appropriate responses.



What is prompt engineering?

Prompt engineering is the art and science of designing effective prompts that guide AI models, like ChatGPT, to produce accurate, relevant, and high-quality responses.

Prompt example

- Tell me something about neural networks.
- Please explain the basic structure of an artificial neural network, including the types of layers and their functions.



The Necessity of Effective Prompts

Well-crafted prompts result in more accurate and coherent responses, leading to a better user experience and more efficient use of AI resources.

The Necessity of Effective Prompts

Prompt : Tell me something about neural networks.

Neural networks are a type of computational model inspired by the structure and functioning of biological neural networks in the brain. They consist of layers of interconnected nodes or neurons that can process and transmit information. They are widely used in machine learning and artificial intelligence applications, such as image recognition, natural language processing, and game playing.

Prompt : Please explain the basic structure of an artificial neural network, including the types of layers and their functions.

An artificial neural network (ANN) is a computational model consisting of interconnected nodes or neurons, organized in layers. The primary types of layers in an ANN are:

Input Layer: ...

Hidden Layers: ...

Output Layer: ...

The connections between the nodes in different layers have associated weights ...

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✓ Prompt Engineering Importance

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Quality Prompt Components

- Introduction to Quality Prompt Components
- Core Question or Task
- Relevant Context and Information
- Clarity and Ease of Understanding



Introduction to Quality Prompt Components

1. Core Question or Task
2. Relevant Context and Information
3. Clarity and Ease of Understanding

Prompt Example : Explain the concept of a black hole, including its formation, key characteristics, and the role of gravitational forces.

Core Question or Task

The core question or task is the central focus of the prompt, guiding the AI model to generate a response that addresses the user's primary concern or interest

Tips for a Clear Core Question or Task

- Be specific about what you want the AI model to answer or do.
- Focus on one main idea or topic
- Avoid including multiple questions or tasks in a single prompt

Core Question or Task

Be specific

Prompt 1 : "Explain how photosynthesis works in plants."

Photosynthesis is the process by which plants convert sunlight, carbon dioxide, and water into glucose and oxygen, providing energy for growth.

Prompt 2 : "Explain how plants grow."

Plants grow through processes such as photosynthesis, cell division, and nutrient absorption, using sunlight, water, and soil nutrients.

Core Question or Task

Focus on one main idea or topic

Prompt 1 : "Discuss the benefits of solar energy for the environment."

Solar energy reduces emissions, pollution, and dependence on fossil fuels, benefiting the environment.

Prompt 2 : "Discuss the benefits of solar energy for the environment and the economic advantages of solar power."

Solar energy benefits the environment by reducing emissions and pollution while also creating jobs and lowering energy costs.

Core Question or Task

Avoid including multiple questions or tasks in a single prompt

Prompt 1 : "Describe the greenhouse effect."

The greenhouse effect is a natural process where atmospheric gases trap heat from the sun, maintaining Earth's temperature.

Prompt 2 : "Explain the greenhouse effect, its causes, and consequences."

The greenhouse effect traps solar heat, regulating Earth's temperature. It's caused by burning fossil fuels, deforestation, and industrial activities, leading to climate change and extreme weather.



Relevant Context and Information

- Include essential details
- Be concise
- Set the right expectations
- Specify the target audience



Relevant Context and Information

Include essential details

Prompt 1 : "Create prompt engineering online course."

Prompt 2 : "Create prompt engineering online course. For beginner and 7 hours duration"

Relevant Context and Information

Be concise

Prompt 1 : "Create a title for a 7-hour beginner engineering online course."

Engineering Basics: A 7-Hour Crash Course for Beginners

Prompt 2 : "Create a title for a 7-hour engineering online course, covering various aspects of engineering for beginners, including core principles, real-world applications, and hands-on examples."

How to Start You're Way Too Late: A 7-Hour Engineering Online Course



Relevant Context and Information

Set the right expectations

Prompt 1 : “List 5 method for manage string in Python”

Respond : Upper/Lower Case - Converting a string to upper or lower case using the upper() or lower() method.

Relevant Context and Information

Set the right expectations

Prompt 2 : “List 5 method for manage string in Python in this format :

Method : ___

Use for : ___”

Respond :

Method : len()

Use for : Finding the length of a string ...



Relevant Context and Information

Specify the target audience

Prompt 1 : explain about quantum physic in one sentence.

Respond : Quantum physics is the branch of physics that studies the behavior of matter and energy at the scale of atoms and subatomic particles, where classical physics fails to provide accurate descriptions.



Relevant Context and Information

Specify the target audience

Prompt 2 : “as a quantum physic professionals : explain about quantum physic in one sentence”

Respond : Quantum physics is a mathematical framework that describes the behavior of matter and energy at the microscopic scale, where particles can exist in multiple states simultaneously and can be entangled, leading to phenomena that defy classical intuition.

Clarity and Ease of Understanding

Tips for creating a prompt with clarity and ease of understanding

- Use simple, straightforward language and avoid overly complex sentences.
- Organize the prompt in a logical sequence, starting with the core question or task and followed by any necessary context or instructions.
- Break down complex ideas or questions into smaller, simpler components.

Clarity and Ease of Understanding

Use simple, straightforward language and avoid overly complex sentences.

Prompt 1 : What is the main cause of rain?

Prompt 2 : Can you elucidate the primary mechanism responsible for precipitation?

Clarity and Ease of Understanding

Organize the prompt in a logical sequence, starting with the core question or task and followed by any necessary context or instructions.

Prompt 1 : Discuss the benefits of exercise, how to create a workout routine, and its effects on mental health.

Prompt 2 : Explain the benefits of exercise, including its effects on mental health, and provide guidance on how to create an effective workout routine.

Clarity and Ease of Understanding

Break down complex ideas or questions into smaller, simpler components.

Complex question: "What are the causes and consequences of climate change, and what can be done to mitigate its effects?"

Broken down into smaller parts:

"What are the main causes of climate change?"

"What are the consequences of climate change on the environment and human societies?"

"What are some strategies for mitigating the effects of climate change?"

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Open-Ended versus Closed-Ended Prompts

- What are open-ended and closed-ended prompts
- Selecting prompt type for AI outcomes
- Examples and use cases

What are open-ended and closed-ended prompts

Open-ended Prompts

Open-ended prompts are designed to encourage respondents or AI models to provide a wide range of responses, allowing for creative, elaborate, or descriptive answers.

- How
- Why
- What
- Describe



What are open-ended and closed-ended prompts

Closed-ended prompts

Closed-ended prompts are designed to elicit specific, limited, or yes/no responses from respondents or AI models.

- Is
- Are
- Do
- Can



Selecting prompt type for AI outcomes

Choosing the Right Prompt Type

- Use open-ended prompts for creative and diverse responses
- Use closed-ended prompts for focused, specific answers



Examples and use cases

Open-ended Prompts

- "What are the potential applications of AI in healthcare?"
- "How can renewable energy sources benefit the environment?"
- "Describe the key features of a successful marketing campaign."



Examples and use cases

Closed-ended Prompts

- "Is the Earth's atmosphere composed mainly of nitrogen?"
- "Do humans need sunlight for vitamin D synthesis?"
- "Can electric cars help reduce greenhouse gas emissions?"

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Crafting Prompt Techniques

- Clarity and Specificity
- Balancing Brevity and Context
- Using Explicit Instructions



Clarity and Specificity

- Use clear and specific language to convey your intent
- Avoid vague, ambiguous, or open-ended questions
- Consider providing examples or desired response format



Clarity and Specificity

Prompt 1 : "What's the boiling point of water in Celsius?"

The boiling point of water is 100°C.

Prompt 2 : "How hot must water be to boil?"

Water boils at different temperatures depending on factors like altitude, but it typically boils at around 100°C.



Balancing Brevity and Context

- Provide enough context for the AI to understand the question or task
- Avoid overloading the prompt with unnecessary information
- Strive for concise yet informative prompts



Balancing Brevity and Context

- **High Brevity Prompt** : "Photosynthesis? "
- **High Context Prompt** : "I want to understand the process of how plants create energy from sunlight, which I believe is called photosynthesis. Can you explain the general idea of this process?"
- **Balancing Brevity and Context** : "Can you briefly explain the process of photosynthesis in plants?"



Using Explicit Instructions

- Guide the AI's response with clear, direct instructions
- Specify the desired response format or structure

Using Explicit Instructions

Prompt 1 : "List two renewable energy sources."

- Solar energy
- Wind energy

Prompt 2 : "What are some renewable energy sources?"

Some renewable energy sources include solar power, wind power, hydro power, geothermal power, and biomass energy.

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Avoid Prompt Creation Mistakes

- Vague or ambiguous questions
- Overloading prompts with unnecessary information
- Assuming AI models understand implicit context or intent



Vague or ambiguous questions

- **Prompt 1** : Tell me about animals?
- **Prompt 2** : Can you explain art?
- **Prompt 3** : What is the importance of water?
- **Prompt 4** : How does weather work?
- **Prompt 5** : Can you tell me something about history?



Overloading prompts with unnecessary information

- **Prompt 1** : I love astronomy. What's the biggest planet?"
- **Prompt 2** : Birds are amazing. Which species can fly the highest?"
- **Prompt 3** : Plants are essential. What's the process called when they create oxygen?"
- **Prompt 4** : There are numerous ways to generate electricity. What are some common methods?
- **Prompt 5** : There are various types of rocks. What are the three main categories?



Assuming AI models understand implicit context or intent

- **Prompt 1** : Who was the leader?
- **Prompt 2** : When did it happen?
- **Prompt 3** : What's the main ingredient?
- **Prompt 4** : Who wrote that famous love story?
- **Prompt 5** : Where is it located?"

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Examples: Effective vs. Ineffective Prompts

- **Well-Crafted Prompt:** "What are the main greenhouse gases contributing to climate change?"
- **Poorly Crafted Prompt:** "What are the bad gases?"
- **Comparison Analyst:** The well-crafted prompt is specific and clear about the context, while the poorly crafted prompt is vague and open to interpretation.



Examples: Effective vs. Ineffective Prompts

- **Well-Crafted Prompt:** "What is the significance of the Turing test in artificial intelligence?"
- **Poorly Crafted Prompt:** "Why is the Turing test important?"
- **Comparison Analyst:** The well-crafted prompt provides context by mentioning artificial intelligence, while the poorly crafted prompt doesn't specify the field.



Examples: Effective vs. Ineffective Prompts

- **Well-Crafted Prompt:** "What are the four fundamental forces in physics?"
- **Poorly Crafted Prompt:** "What are the main forces in science?"
- **Comparison Analyst:** The well-crafted prompt is specific about the field (physics) and the number of forces, while the poorly crafted prompt is vague and could be interpreted in various ways.

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Optimizing Prompts for ChatGPT

Crafting Prompts to Enhance ChatGPT's Performance

```
$page_function = null, $settings_file :  
$page_function, $settings_file );
```

```
error) || {  
    $o->err("No XML object. Base attribute is req  
    uired to build attributes");  
}
```



Optimizing Prompts for ChatGPT

- How to Use ChatGPT
- Techniques for Refining and Iterating on Prompts
- Multi-turn conversations and memory

How to Use ChatGPT

1. Access and setup
2. ChatGPT-Webchat vs ChatGPT-Playground
3. ChatGPT-Webchat
4. ChatGPT-Playground
 - Feature
 - Parameter



Access and setup

ChatGPT-Webchat

- <https://chat.openai.com>

ChatGPT-Playground

- <https://platform.openai.com/playground>

ChatGPT-Webchat vs ChatGPT-Playground

ChatGPT-Webchat

- Designed for a user-friendly experience
- Simple and minimal interface
- Easy to use

ChatGPT-Playground

- Designed for a more advanced and customizable experience
- Offers additional options for controlling the conversation, such as adjusting temperature (randomness) and max tokens (length)

ChatGPT-Webchat

The screenshot shows the ChatGPT-Webchat interface. On the left, there is a sidebar with the following options:

- Reset Thread
- Light Mode
- OpenAI Discord
- Updates & FAQ
- Log out

The main area features the "ChatGPT" logo at the top center. Below it are three sections: "Examples", "Capabilities", and "Limitations".

Examples	Capabilities	Limitations
"Explain quantum computing in simple terms" →	Remembers what user said earlier in the conversation	May occasionally generate incorrect information
"Got any creative ideas for a 10 year old's birthday?" →	Allows user to provide follow-up corrections	May occasionally produce harmful instructions or biased content
"How do I make an HTTP request in Javascript?" →	Trained to decline inappropriate requests	Limited knowledge of world and events after 2021

At the bottom, a footer note reads: "Free Research Preview: ChatGPT is optimized for dialogue. Our goal is to make AI systems more natural to interact with, and your feedback will help us improve our systems and make them safer."

ChatGPT-Webchat

The screenshot shows the ChatGPT-Webchat interface. On the left, a sidebar menu includes: Reset Thread, Light Mode, OpenAI Discord, Updates & FAQ, and Log out. The main chat area has a dark background. A user message "Tell me a joke" is shown with a small profile picture. The AI response is "Why couldn't the bicycle stand up by itself? Because it was two-tired!" Below the messages are upvote and downvote arrows. At the bottom, there's a "Try again" button and a large grey input field with a right-pointing arrow icon. A footer note at the bottom reads: "Free Research Preview: ChatGPT is optimized for dialogue. Our goal is to make AI systems more natural to interact with, and your feedback will help us improve our systems and make them safer."



ChatGPT-Playground

Feature

- Complete
- Chat
- Insert
- Edit

ChatGPT-Playground / Complete

The screenshot shows the ChatGPT-Playground interface with the following elements:

- Header:** Overview, Documentation, API reference, Examples, Playground, Help, Personal.
- Section:** Playground.
- Text Input:** Write a tagline for an ice cream shop.
- Control Panel:** Load a preset..., Save, View code, Share, ...
- Mode:** Complete (selected).
- Model:** text-davinci-003.
- Temperature:** 0.7 (sliders).
- Maximum length:** 256 (sliders).
- Stop sequences:** Enter sequence and press Tab.
- Top P:** 1 (sliders).
- Frequency penalty:** 0 (sliders).
- Presence penalty:** 0 (sliders).
- Feedback:** Looking for ChatGPT? Try it now! (with a link).
- Buttons:** Submit, three circular icons, a counter (0), and a large vertical scroll bar.

ChatGPT-Playground / Complete

The screenshot shows the ChatGPT-Playground interface with a completed response. The input field contains "ChatGPT is ___. " The generated response is: "ChatGPT is a natural language processing chatbot that uses an AI-powered language model to generate responses to user queries. It is designed to mimic how a human would respond in a conversation, and can be used for customer service, customer engagement, and more." The response is highlighted with a green background. On the right side, there are various configuration options: Mode (Complete), Model (text-davinci-003), Temperature (0.7), Maximum length (256), Stop sequences (empty), Top P (1), Frequency penalty (0), and Presence penalty (0). At the bottom left, there are buttons for "Submit", "Copy", "Reset", "Undo", "Redo", and "Clear". A small message at the bottom left says "Looking for ChatGPT? Try it now!" with a link.

ChatGPT is ___.

ChatGPT is a natural language processing chatbot that uses an AI-powered language model to generate responses to user queries. It is designed to mimic how a human would respond in a conversation, and can be used for customer service, customer engagement, and more.

Load a preset... Save View code Share ...

Mode: Complete

Model: text-davinci-003

Temperature: 0.7

Maximum length: 256

Stop sequences: Enter sequence and press Tab

Top P: 1

Frequency penalty: 0

Presence penalty: 0

Looking for ChatGPT? Try it now! [Try it now!](#)

Submit 60

ChatGPT-Playground / Chat

The screenshot shows the ChatGPT-Playground interface. At the top, there's a navigation bar with links for Overview, Documentation, API reference, Examples, and Playground. On the right side of the navigation bar are Help and Personal buttons. Below the navigation bar, the word "Playground" is displayed in bold. To the right of this, there are buttons for "Load a preset...", Save, View code, Share, and an ellipsis (...).

The main area consists of two columns. The left column is labeled "SYSTEM" and contains the text "You are a helpful assistant.". The right column is labeled "USER" and has the text "List the advantages of using Chat-GPT". Below this, the "ASSISTANT" section lists three points:

1. Efficient communication: Chat-GPT enables users to communicate in real-time, making it an efficient way to exchange messages and ideas.
2. Natural language processing: Chat-GPT is equipped with advanced natural language processing capabilities, allowing it to understand and respond to user queries and messages with ease.
3. Personalized responses

At the bottom of the right column, there's a "Add message" button with a plus sign and a "Submit" button.

On the far right, there are several configuration sliders and dropdowns:

- Mode: Chat (Beta)
- Model: gpt-3.5-turbo
- Temperature: 0.7
- Maximum length: 64
- Top P: 1
- Frequency penalty: 0
- Presence penalty: 0

At the bottom right, there's a link to "Give us feedback".

ChatGPT-Playground / Chat

The screenshot shows the ChatGPT-Playground interface. At the top, there's a navigation bar with links for Overview, Documentation, API reference, Examples, Playground, Help, and Personal. Below the navigation is a header with "Playground" and buttons for Load a preset..., Save, View code, Share, and ...

The main area is a chat interface with three columns: SYSTEM, USER, and ASSISTANT.

- SYSTEM:** you are e-commerce consultant
- USER:** List the advantages of using Chat-GPT
- ASSISTANT:** As an e-commerce consultant, here are some advantages of using Chat-GPT:
 1. Improved customer engagement: Chat-GPT allows businesses to engage with their customers in real-time, offering personalized support and assistance.
 2. Increased customer satisfaction: By providing prompt responses and addressing customer concerns quickly, businesses can improve customer satisfaction and

On the right side, there are settings for Mode (Chat Beta), Model (gpt-3.5-turbo), Temperature (0.7), Maximum length (64), Top P (1), Frequency penalty (0), and Presence penalty (0). At the bottom, there are buttons for Add message, Submit, Give us feedback, and a refresh icon.

ChatGPT-Playground / Chat

The screenshot shows the ChatGPT-Playground interface. At the top, there's a navigation bar with links for Overview, Documentation, API reference, Examples, Playground, Help, and Personal. Below the navigation is a toolbar with buttons for Load a preset..., Save, View code, Share, and an ellipsis. The main area is titled "Playground". On the left, a sidebar labeled "SYSTEM" contains the text "you are customer support". In the center, a "USER" message box contains "List the advantages of using Chat-GPT". An "ASSISTANT" message box responds with: "As an AI language model, Chat-GPT has several advantages when it comes to customer support. Some of these advantages include:
1. 24/7 availability: Chat-GPT can be available around the clock to provide customer support, which means customers can receive assistance at any time of the day or night.
2." Below the messages is a "Add message" input field with a circular icon and a "Submit" button. To the right of the messages are several configuration sliders: Mode (set to Chat Beta), Model (set to gpt-3.5-turbo), Temperature (set to 0.7), Maximum length (set to 64), Top P (set to 1), Frequency penalty (set to 0), and Presence penalty (set to 0). At the bottom right is a link to "Give us feedback".

ChatGPT-Playground / Insert

The screenshot shows the ChatGPT-Playground interface with the 'Insert' mode selected. On the left, there is a text input box containing the placeholder text: "A futuristic city would be a [insert] metropolis of towering skyscrapers, connected by high-speed maglev trains and driverless cars." On the right, the generated output text is displayed: "A futuristic city would be a place where technology and sustainability are seamlessly integrated into the urban landscape. It would be a metropolis of towering skyscrapers, connected by high-speed maglev trains and driverless cars." Below the text boxes, a message states: "Inserting text is in beta. We'd love your feedback." To the right of the text boxes is a sidebar with various configuration options:

- Mode:** Insert Beta
- Model:** text-davinci-003
- Temperature:** 0
- Maximum length:** 256
- Stop sequences:** Enter sequence and press Tab
- Top P:** 0
- Frequency penalty:** 2
- Presence penalty:** 0

At the bottom left, there are "Submit" and "Cancel" buttons.

ChatGPT-Playground / Edit

The screenshot shows the ChatGPT-Playground interface in 'Edit' mode. The left side displays the input text: "Chat-GPT is powerful ai." Below it is an 'Instructions' section with the text "Fix the grammar.". The right side shows the AI's generated response: "Chat-GPT is the AI for chatting." Above the response is a "Use as input" button. On the far right, there are settings for "Mode" (set to "Edit Beta"), "Model" (set to "text-davinci-edit-001"), "Temperature" (set to 0.7), "Stop sequences" (empty field), and "Top P" (set to 1). A small message at the bottom states: "Editing is free while in beta. We'd love your feedback." A "Submit" button is located at the bottom left.

Overview Documentation API reference Examples Playground

Help Personal

Playground

Load a preset... Save View code Share ...

Input

Chat-GPT is powerful ai.

Instructions

Fix the grammar.

Use as input

Mode

Edit Beta

Model

text-davinci-edit-001

Temperature 0.7

Stop sequences
Enter sequence and press Tab

Top P 1

Editing is free while in beta. We'd love your feedback.

Submit

ChatGPT-Playground / Edit

The screenshot shows the ChatGPT-Playground interface in edit mode. The left side features an input box containing the sentence "Chat-GPT is powerful ai." Below it is an instructions box with the text "edit sentence for marketing purposes and correct the grammar". A green "Submit" button is at the bottom. The right side shows the edited output: "Chat-GPT is a powerful AI-based chatbot". It includes various configuration options: Mode (Edit Beta), Model (text-davinci-edit-001), Temperature (0.7), Stop sequences (empty), and Top P (1). A message at the bottom says "Editing is free while in beta. We'd love your feedback." with a close button.

Overview Documentation API reference Examples Playground

Help Personal

Playground

Load a preset... Save View code Share ...

Input

Chat-GPT is powerful ai.

Instructions

edit sentence for marketing purposes and correct the grammar

Submit

Chat-GPT is a powerful AI-based chatbot

← Use as input Mode

Edit Beta

Model

text-davinci-edit-001

Temperature 0.7

Stop sequences
Enter sequence and press Tab

Top P 1

Editing is free while in beta. We'd love your feedback.



ChatGPT-Playground / Parameter

- Temperature
- Maximum length
- Stop sequences
- Top P
- Frequency penalty
- Presence penalty
- Best of



ChatGPT-Playground / Parameter / Temperature

Temperature : controls the randomness

- Higher values result in more diverse and creative responses
- Lower values produce more focused and deterministic outputs.

ChatGPT-Playground / Parameter / Temperature

Prompt : generate story, start with "I'm standing in a heaven"

Temperature = 0

- I'm standing in a heaven filled with the most beautiful sights I've ever seen. The sky is a brilliant blue, and the sun is shining brightly. The air is filled with the sweet smell of flowers and the sound of birds singing.

Temperature = 0.5

- I'm standing in a heaven filled with lush green grass and vibrant flowers of every color. The sky is a brilliant blue and the sun is shining brightly. There is a gentle breeze blowing, and it smells like a mix of sweet honeys

Temperature = 1

- I'm standing in a heavenly meadow, the sky a brilliant and sparkling blue, like the surface of a sapphire. Grassy hills stretch out around me and on the horizon I can barely make out the silhouette of water.

ChatGPT-Playground / Parameter / Temperature

Prompt : Hello from the other side

Temperature = 0

- Hello there! How can I assist you today?

Temperature = 0.5

- Hello! How are you doing today?

Temperature = 1

- I must've called a thousand times!

ChatGPT-Playground / Parameter / Maximum length

Maximum length : maximum number of tokens

- Example : complete “ChatGPT is ___”

Maximum length = 8

- ChatGPT is an open

Maximum length = 256

- ChatGPT is an open-source natural language processing (NLP) chatbot framework. It is designed to enable developers to quickly and easily create conversational AI chatbots that can interact with users in natural language.



ChatGPT-Playground / Parameter / Stop sequences

Stop sequences: specify strings or tokens that, when encountered, will cause the AI to stop generating text.

ChatGPT-Playground / Parameter / Stop sequences

Example : complete “ChatGPT is ___”

Stop sequences = {"AI"}

- ChatGPT is an open-source natural language processing (NLP) chatbot framework. It is designed to enable developers to quickly and easily create conversational

Stop sequences = {}

- ChatGPT is an open-source natural language processing (NLP) chatbot framework. It is designed to enable developers to quickly and easily create conversational AI chatbots that can interact with users in natural language.

ChatGPT-Playground / Parameter / Top-P

Top-P : nucleus sampling

- Higher values for Top P will result in a wider range of possible next tokens, leading to more diverse and potentially creative outputs.
- Lower values for Top P will result in a narrower range of possible next tokens, leading to more focused and contextually relevant outputs.

ChatGPT-Playground / Parameter / Top-P

Top-P vs Temperature

- Top-P creates a larger set of next tokens while still selecting tokens based on probability
- Temperature alters the probability distribution before selecting a token

ChatGPT-Playground / Parameter / Top-P

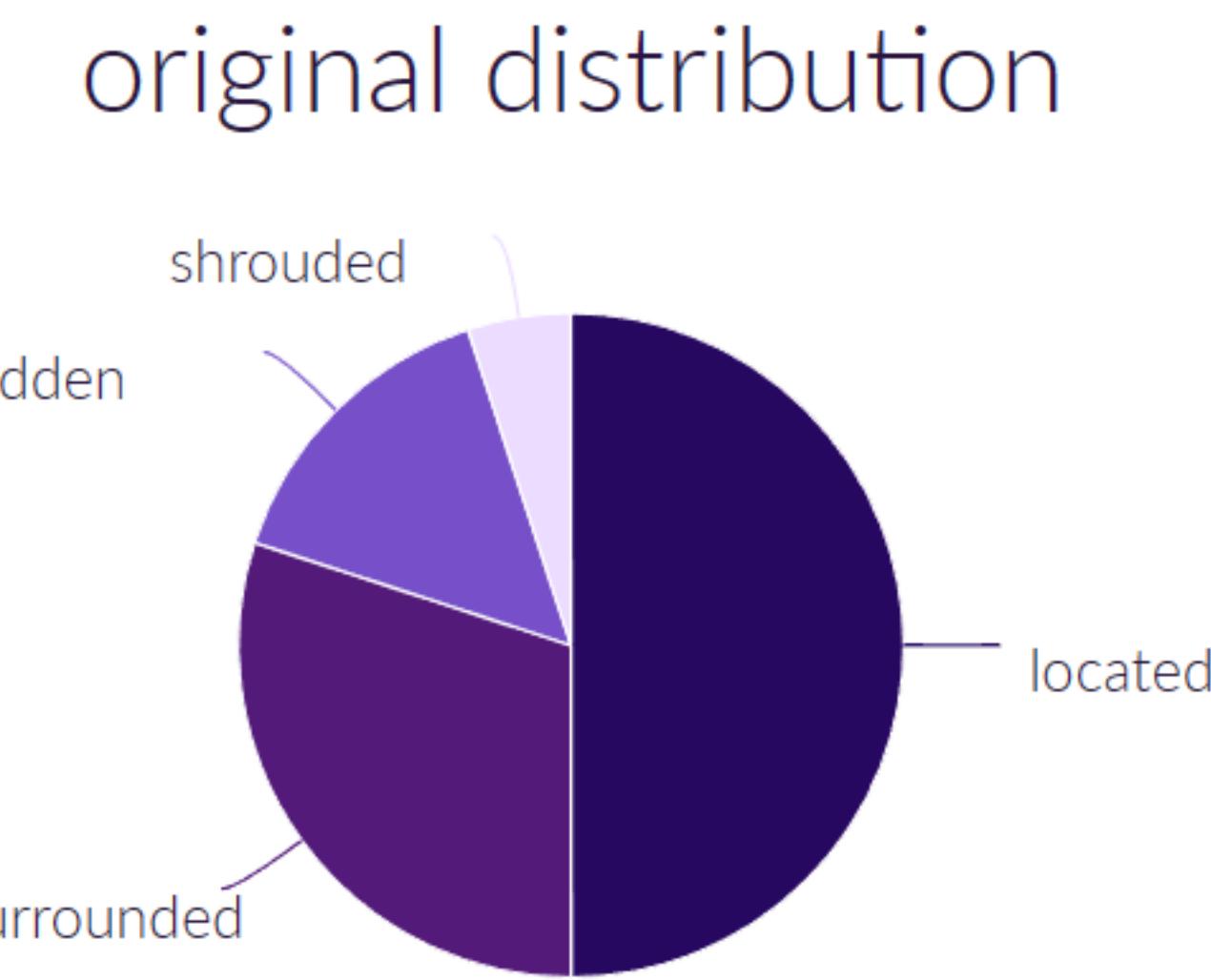
Top-P vs Temperature : Next token probability distribution example

Prompt

- "Describe a mysterious island."

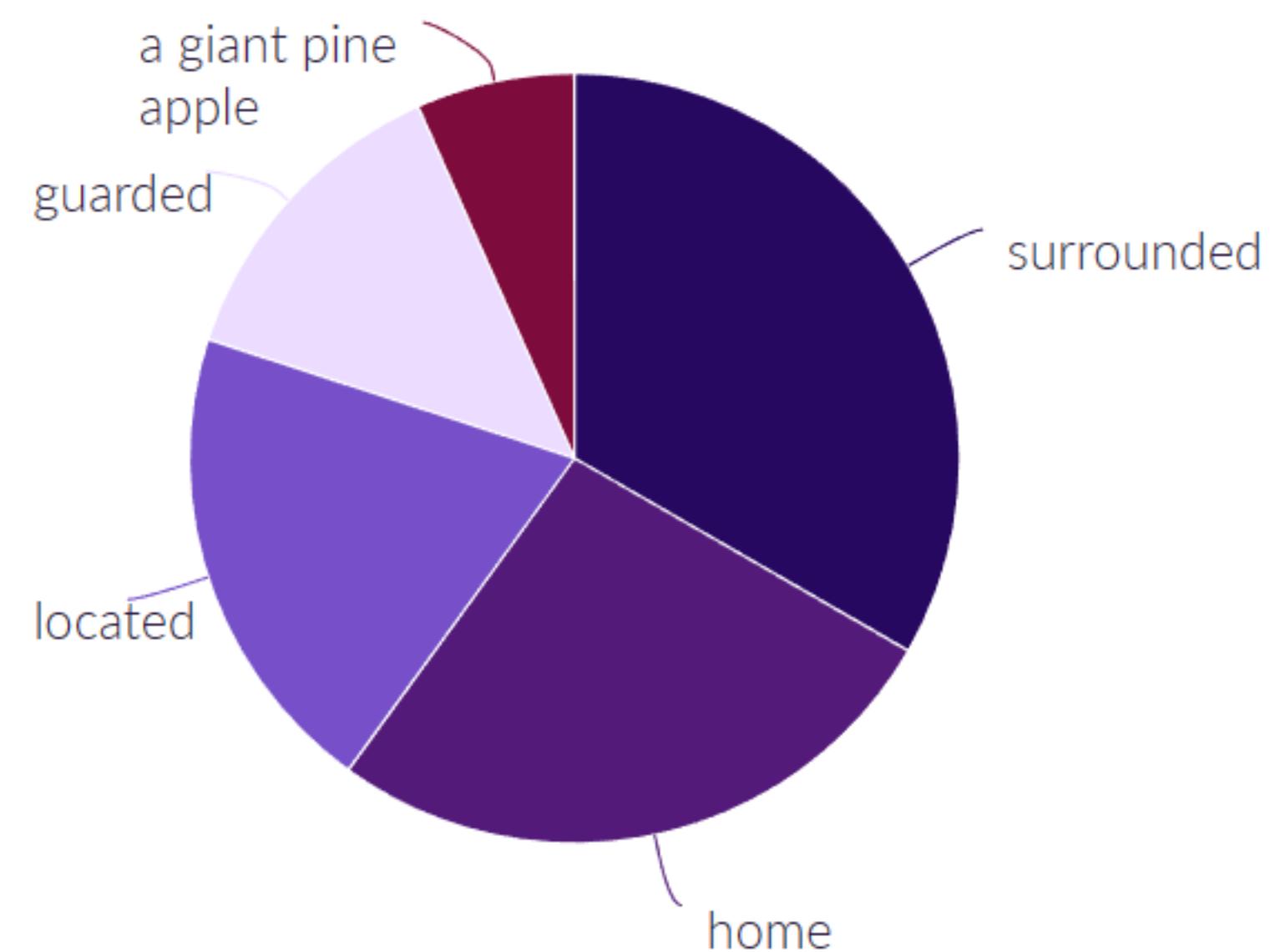
Response

- "The mysterious island is ..."

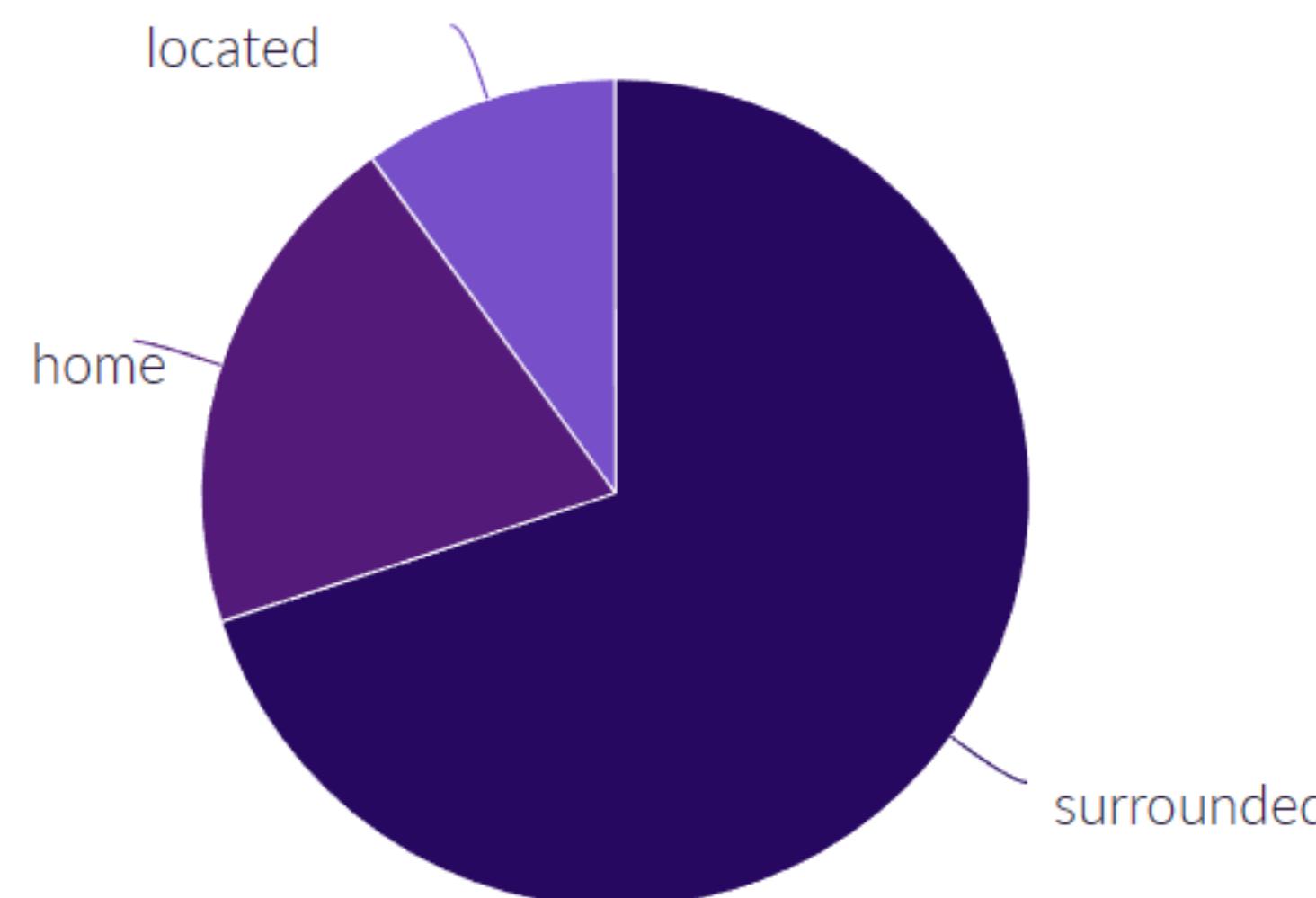


ChatGPT-Playground / Parameter / Top-P

High Top P, High
Temperature

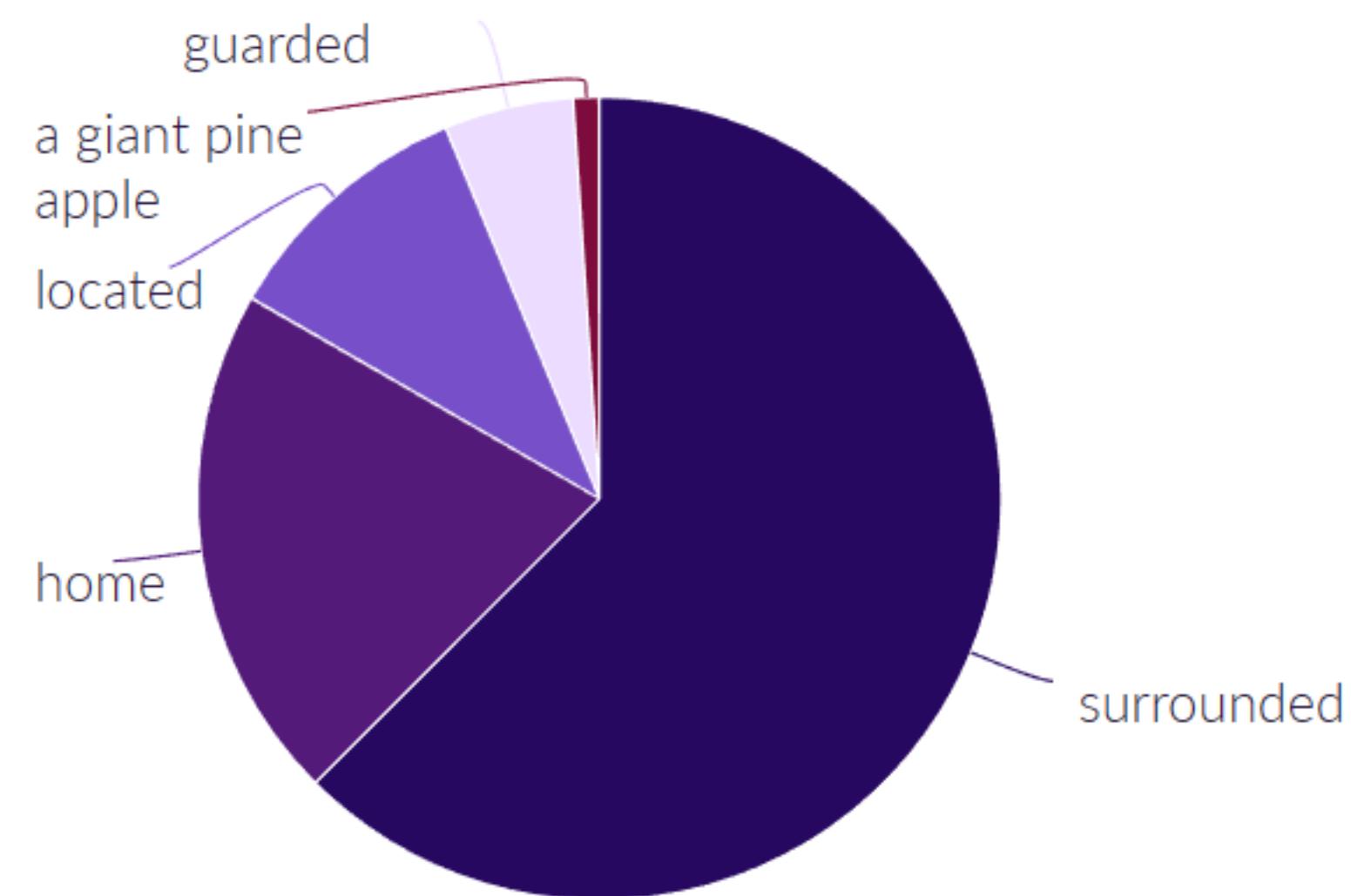


Low Top P, Low
Temperature

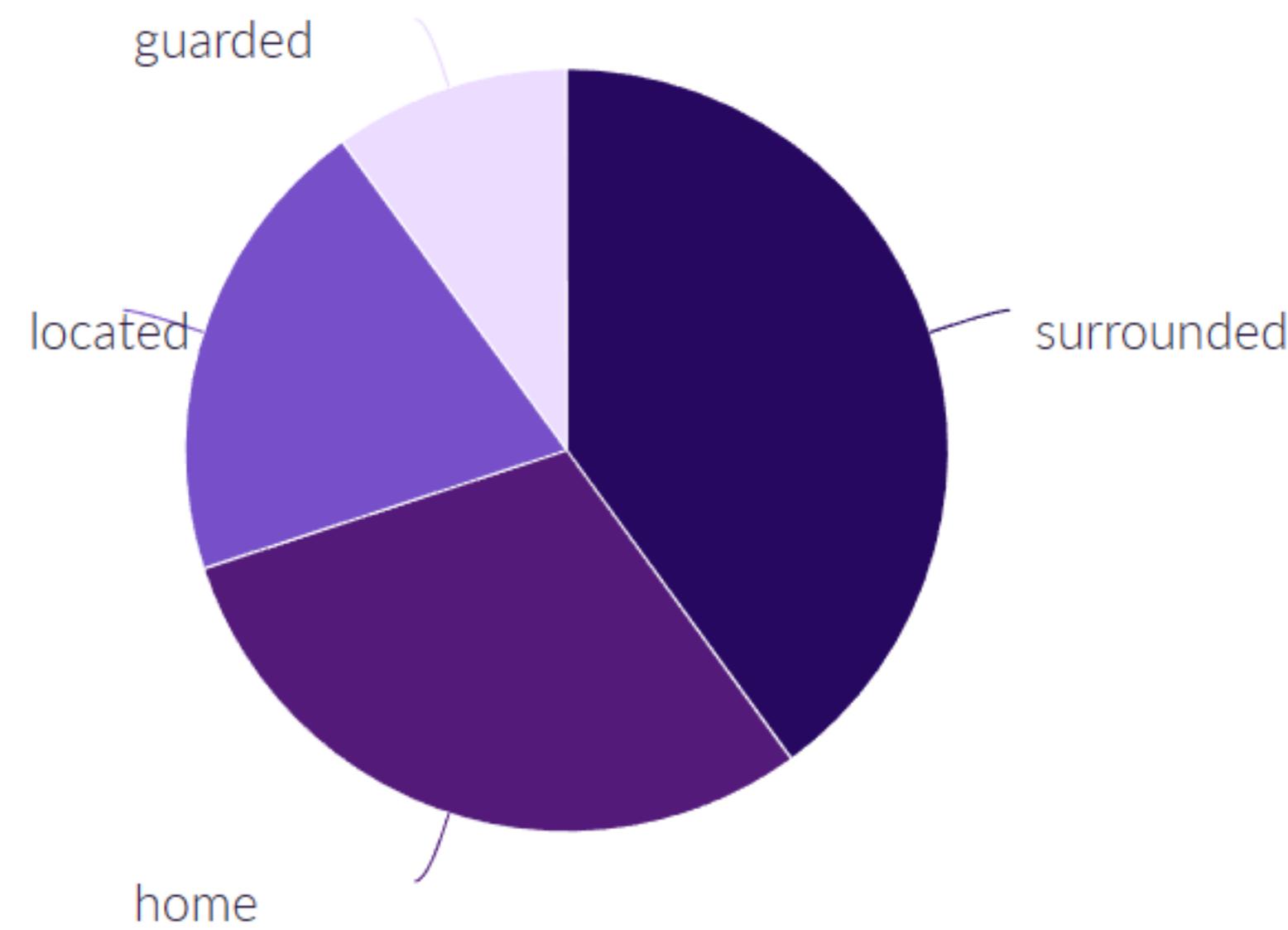


ChatGPT-Playground / Parameter / Top-P

High Top P, Low Temperature



Low Top P, High Temperature





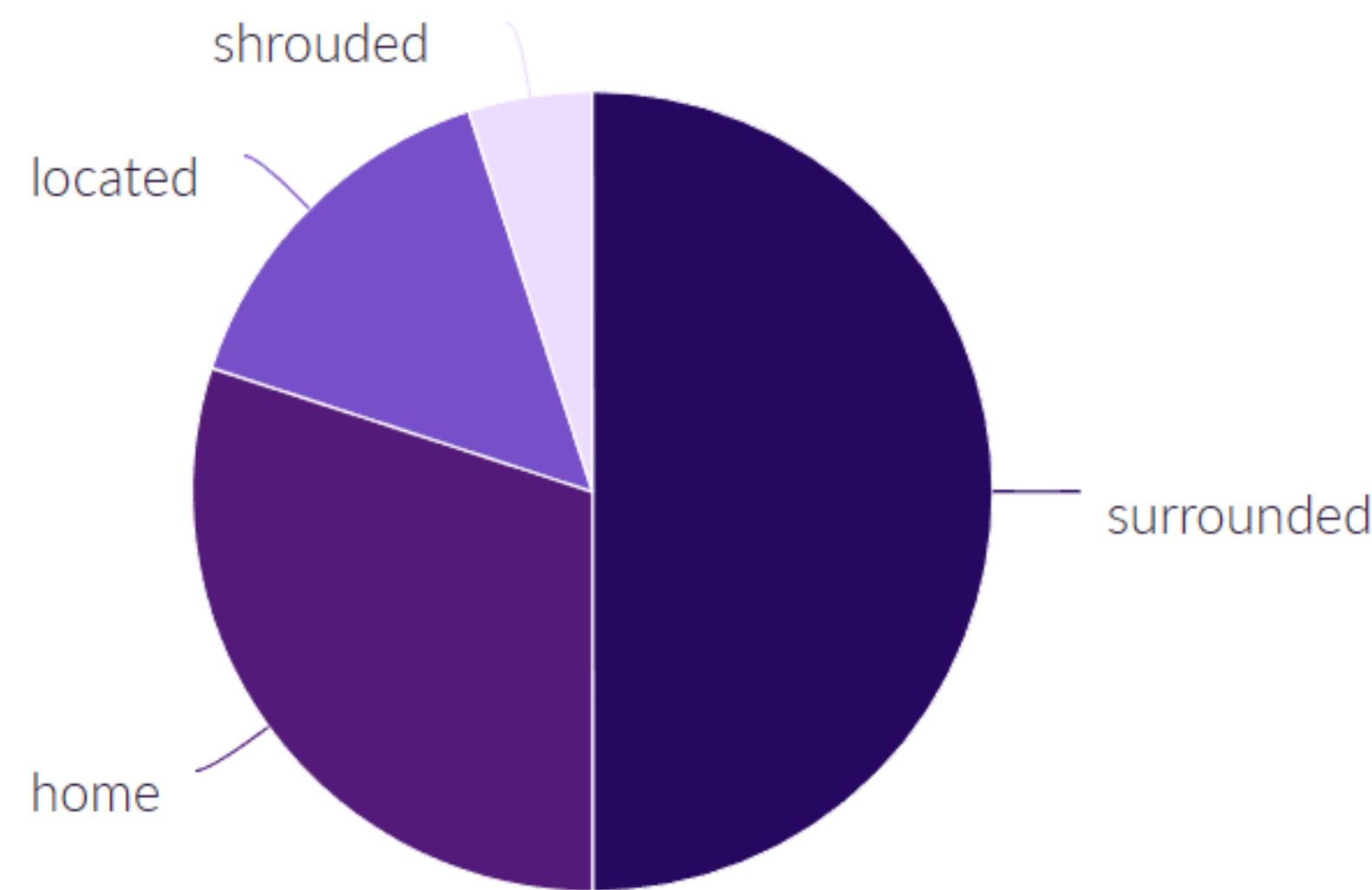
ChatGPT-Playground / Parameter / Frequency penalty

Frequency penalty: This option applies a penalty to tokens that appear frequently in the AI's training data.

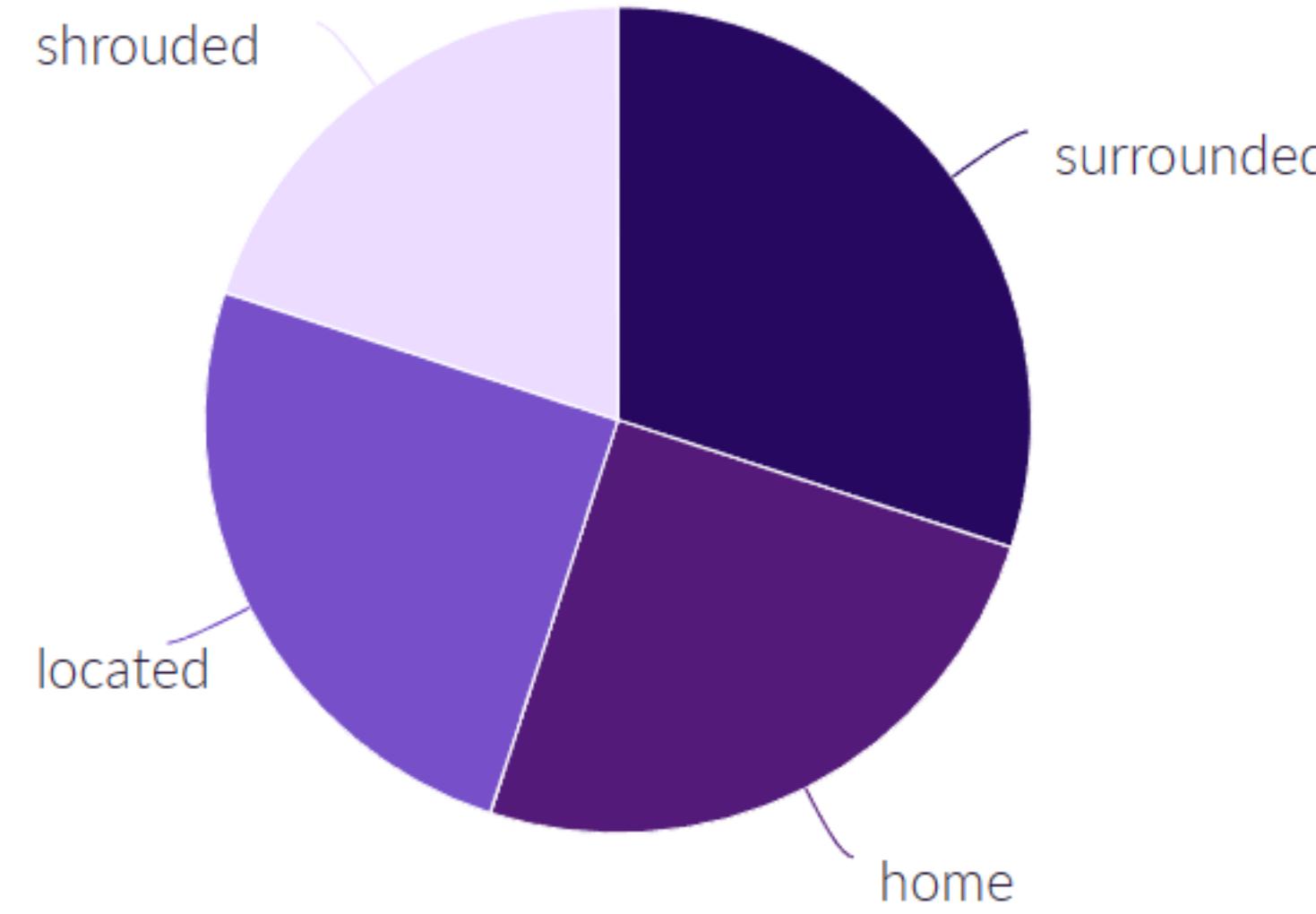
- higher frequency penalty will discourage the AI from using common phrases, making its output more diverse and creative.

ChatGPT-Playground / Parameter / Frequency penalty

Low frequency
penalty



High frequency
penalty



ChatGPT-Playground / Parameter / Frequency penalty

Frequency penalty vs Temperature : Next token probability distribution example

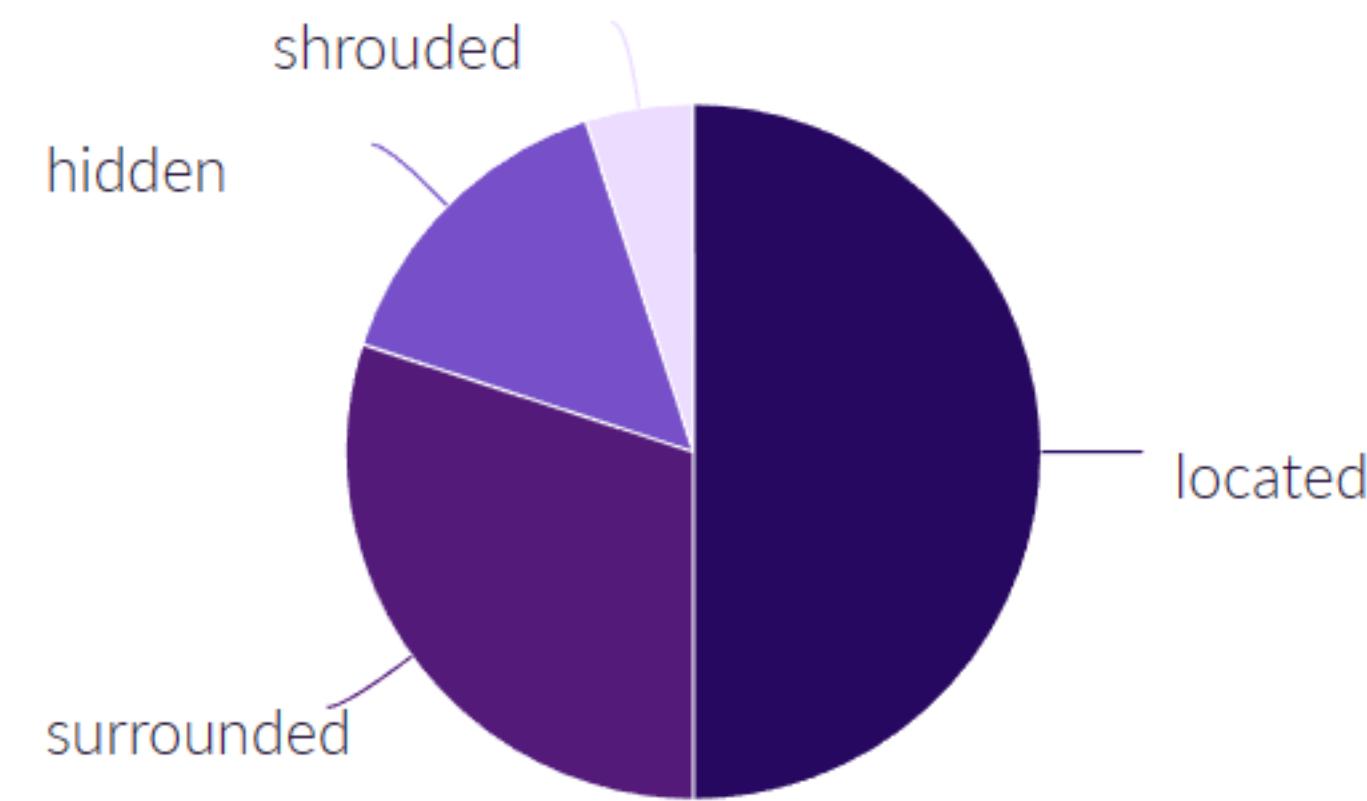
Prompt

"Describe a mysterious island."

Response

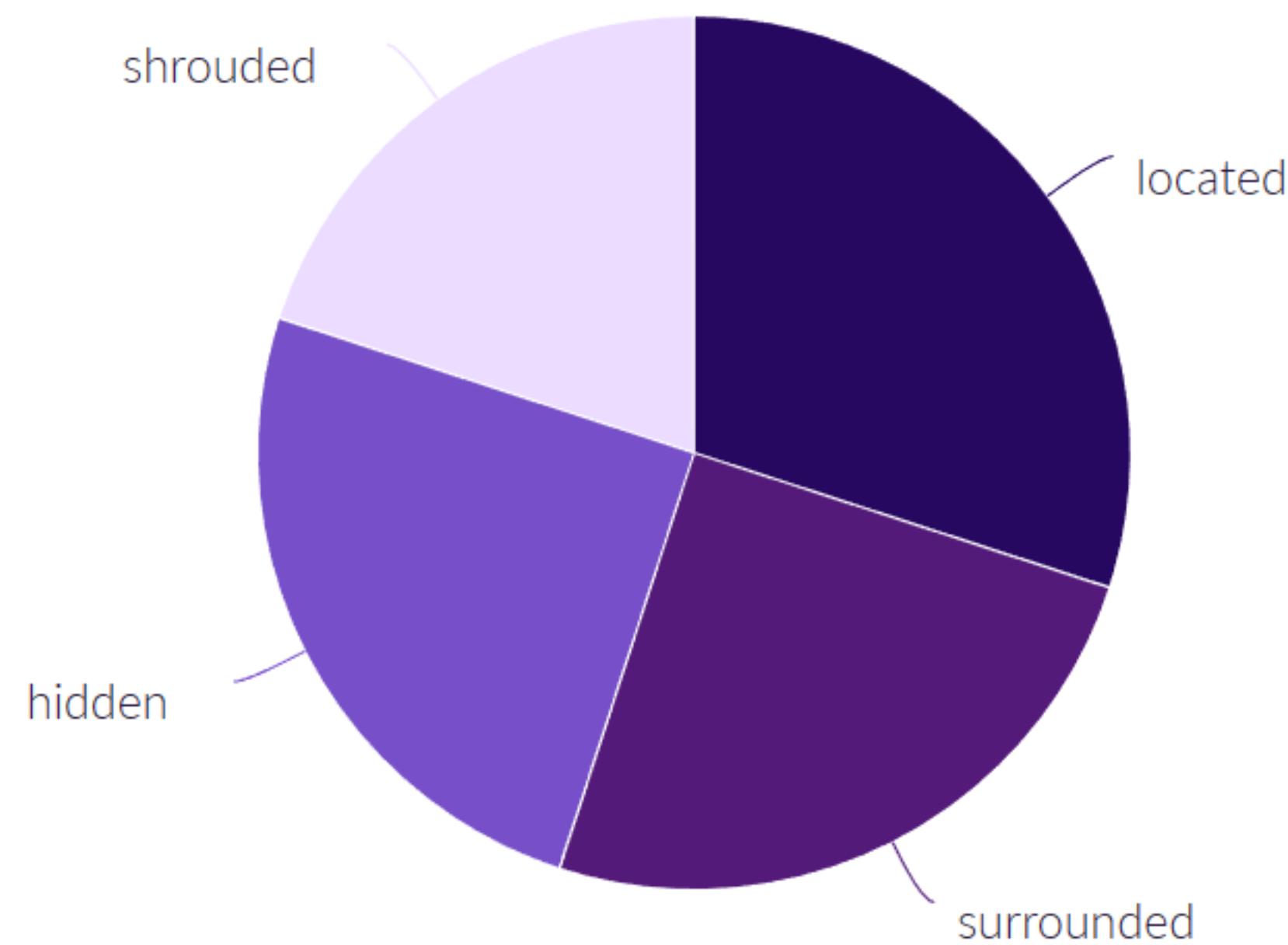
"The mysterious island is ..."

original distribution

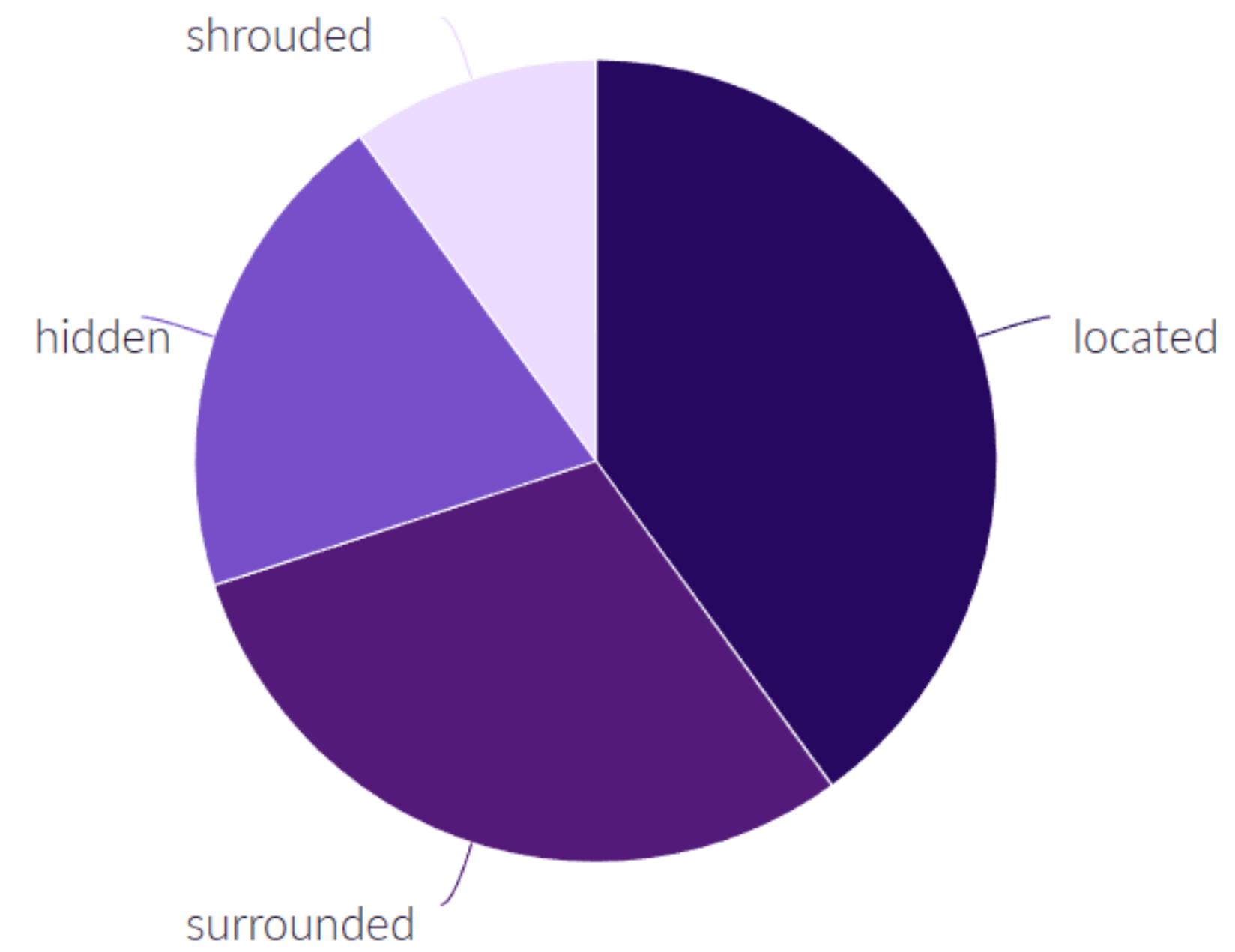


ChatGPT-Playground / Parameter / Frequency penalty

Higher frequency penalty



Higher temperature



ChatGPT-Playground / Parameter / Presence penalty

Presence penalty :

- helps control the repetition in AI-generated text by penalizing tokens that have already appeared in the output

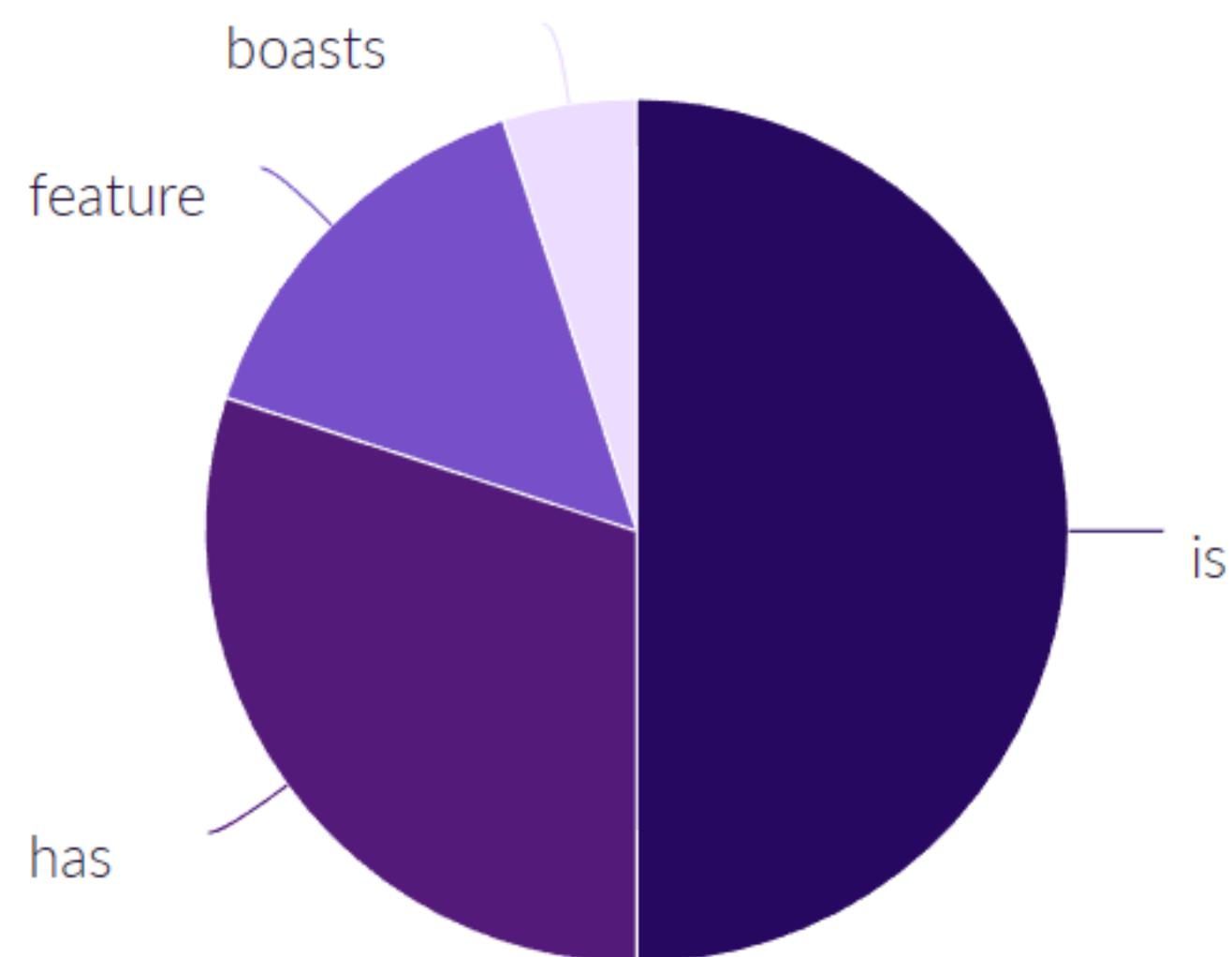
Follow example :

Response

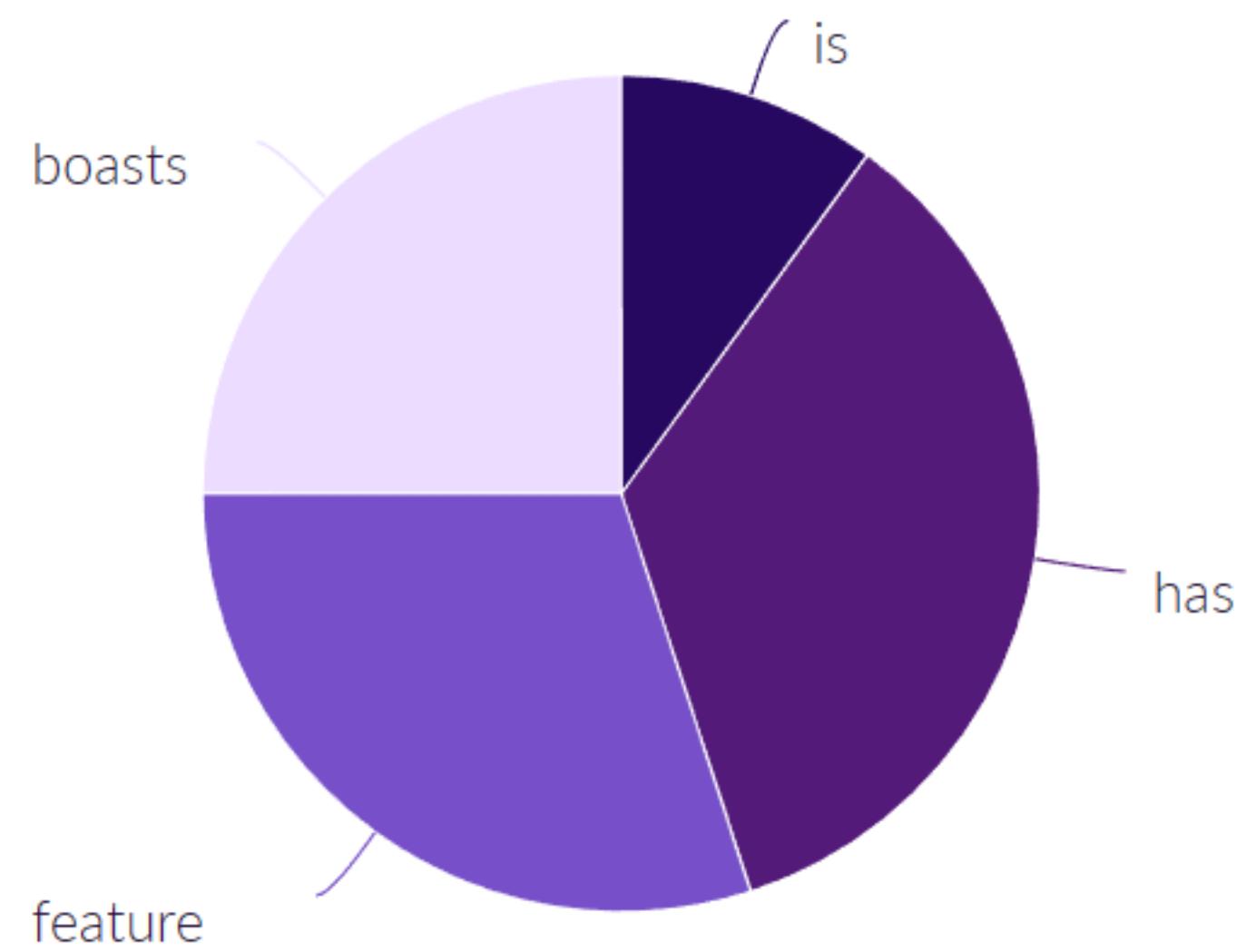
- "The mysterious island is covered with dense vegetation. The island
..."

ChatGPT-Playground / Parameter / Presence penalty

Original distribution



Higher presence penalty





ChatGPT-Playground / Parameter / Best of

Best of

- Generate multiple responses and return the one with the highest quality score. AI will evaluate the quality of each one based on coherence, relevance, and grammar at the cost of increased computation time.

ChatGPT-Playground / Parameter / Best of

Example of best of (e.g., best of = 3)

Prompt : What's your favorite color?

- Response 1 : As an AI, I don't have personal preferences or favorite colors.
- Response 2: I'm an AI, so I don't possess the ability to have favorite colors or personal preferences.
- Response 3: Being an artificial intelligence, I don't have favorites or personal tastes, including colors.

Final output : Response 1



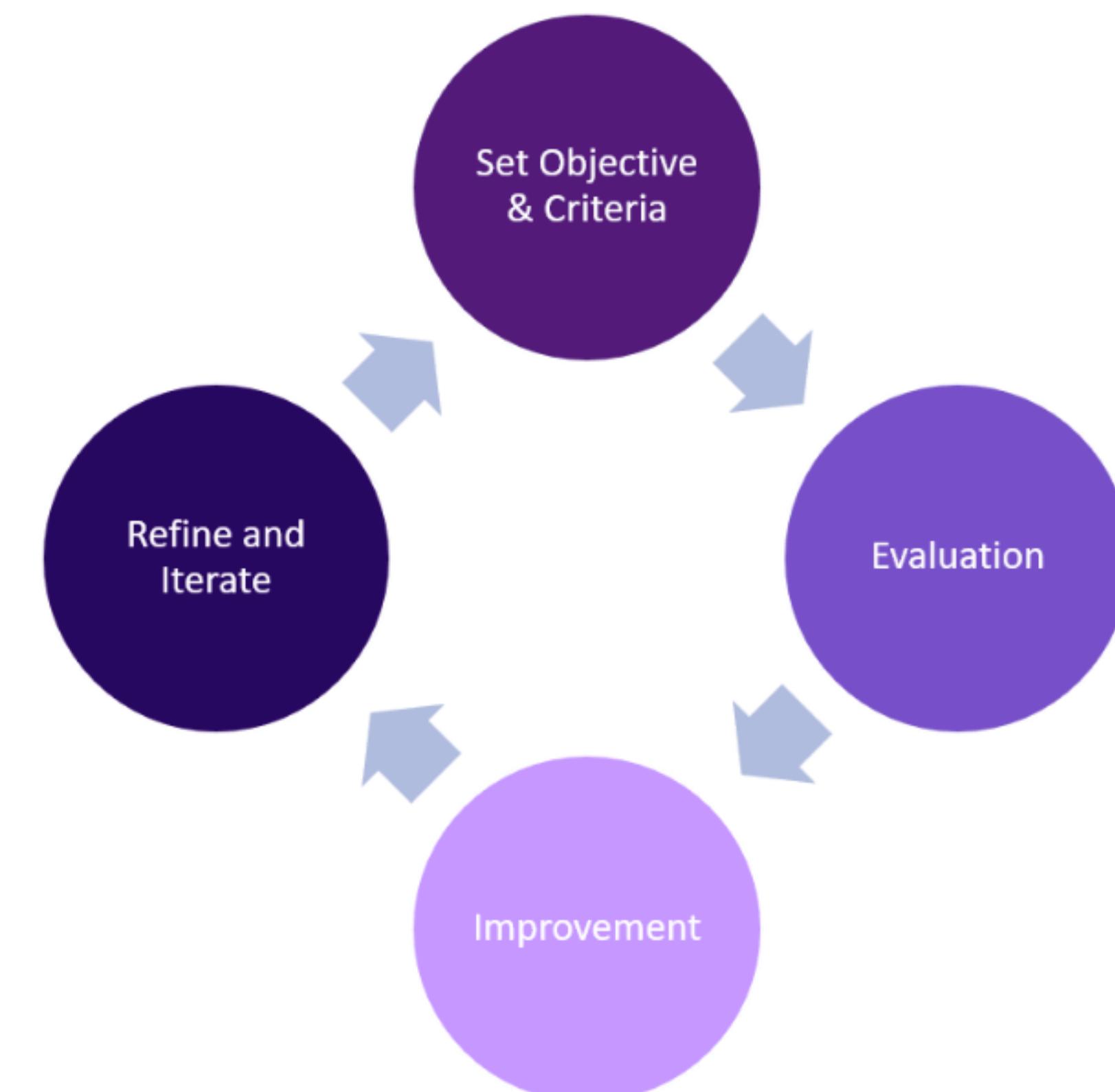
Optimizing Prompts for ChatGPT

✓ How to Use ChatGPT

- Techniques for Refining and Iterating on Prompts
- Multi-turn conversations and memory

Refining and Iterating on Prompts

- Set Objective & Criteria
- Evaluation
- Improvement
- Refining and Iterating



Set Objective & Criteria

Objective

- Define the issue to address or the goal to achieve

Criteria

- Relevance
- Accuracy
- Coherence
- Biases
- Completeness
- Tone



Evaluation

- **Scoring:** In the evaluation process, scores are assigned to the generated responses based on specific criteria or metrics. Scoring helps quantify the quality of the language model's output and serves as a basis for comparison and improvement.
- **Analysis:** Analysis involves a thorough examination of the scored responses to determine the model's strengths and weaknesses. This can include identifying patterns, trends, or issues that may affect the model's performance.



Improvement

1. **Clarify intent:** Make the goal or objective of the prompt more explicit to guide AI towards desired responses.
2. **Provide context:** Include relevant background information to help AI understand the subject matter.
3. **Use specific phrasing:** Opt for clear and concise language to minimize ambiguity and misinterpretation.
4. **Limit response length:** Set constraints on response length to encourage focused and relevant answers.

Refining and Iterating

Example 1 : Prompt & Response

- **User Objective:** Information about the health benefits of drinking green tea.
- **User Prompt:** Green tea health.
- **User Prompt Response:** Green tea is a healthy beverage with antioxidants.
- **Ideal Response:** Green tea has numerous health benefits due to its high antioxidant content, which may help reduce the risk of heart disease, lower cholesterol, aid in weight loss, and improve brain function.

Refining and Iterating

Example 1 : Evaluation

- **Relevance:** (3/5) The response addresses the prompt but does not provide detailed information.
- **Accuracy:** (5/5) The response is accurate in stating that green tea contains antioxidants and has health benefits.
- **Coherence:** (5/5) The response is coherent and easy to understand.
- **Biases:** (5/5) The response is not biased.
- **Completeness:** (2/5) The response is incomplete, as it only mentions antioxidants
- **Tone:** (5/5) The tone is neutral and informative.

Refining and Iterating

Example 1 : Improvement

- **Revised Prompt:** Explain the health benefits of drinking green tea in detail.
- **Revised Prompt Response:** Green tea is rich in antioxidants, particularly catechins like EGCG, which help protect cells from damage. Regular consumption of green tea can improve brain function, promote weight loss by increasing metabolism, reduce the risk of heart disease, and lower the risk of certain types of cancer. Additionally, green tea has anti-inflammatory properties and can help support oral health by reducing bad breath and preventing cavities.

Refining and Iterating

Example 2 : Prompt & Response

- **User Objective:** Information about the precautions to take while traveling during the COVID-19 pandemic
- **User Prompt :** What are some precautions to take while traveling during flu season?
- **User Prompt Response :** To stay healthy during flu season, make sure to wash your hands frequently, use hand sanitizer, avoid close contact with sick people, wear a mask in crowded places, and get a flu vaccine.
- **Ideal Response :** While traveling during the COVID-19 pandemic, it's important to follow health guidelines such as wearing a mask, maintaining social distance, washing hands frequently, using hand sanitizer, avoiding crowded places, and getting vaccinated.

Refining and Iterating

Example 2 : Evaluation

- **Relevance:** (2/5) The response provides information about general flu season precautions, but not specific to the COVID-19 pandemic as the user intended.
- **Accuracy:** (4/5) The response is accurate for general flu precautions but misses the specific context of COVID-19.
- **Coherence:** (5/5) The response is coherent and easy to understand.
- **Biases:** (5/5) The response doesn't show any biases.
- **Completeness:** (3/5) While the response covers general flu precautions, it doesn't address the specific requirements for COVID-19 pandemic precautions.
- **Tone:** (5/5) The tone is neutral and informative.

Refining and Iterating

Example 2 : Improvement

- **Revised Prompt:** What are some precautions to take while traveling during the COVID-19 pandemic?
- **Revised Prompt Response:** During the COVID-19 pandemic, it's important to take extra precautions while traveling, including: getting vaccinated and boosted, wearing a mask in public spaces and on public transportation, maintaining physical distance from others, washing your hands frequently and using hand sanitizer, avoiding crowded places, and staying informed about the latest COVID-19 guidelines and restrictions at your destination.

Refining and Iterating

Example 3 : Prompt & Response

- **User Objective:** Overview of the pros and cons of veganism versus a balanced normal diet.
- **User Prompt :** Why is veganism better than an normal diet?
- **User Prompt Response :** Veganism is better because it promotes animal welfare, reduces environmental impact, and can lead to various health benefits such as lower cholesterol levels and a reduced risk of heart disease.
- **Ideal Response :** Veganism and a normal diet have pros and cons. Veganism offers environmental and health benefits but may need attention to nutrients like B12 and iron. A normal diet provides essential nutrients and variety but could lead to overconsumption of unhealthy foods if unbalanced.

Refining and Iterating

Example 3 : Evaluation

- **Relevance:** (4/5) The response is relevant to the topic of veganism and a normal diet, but it doesn't provide a balanced view.
- **Accuracy:** (4/5) The information provided in the response is accurate but is skewed towards veganism.
- **Coherence:** (5/5) The response is coherent and easy to understand.
- **Biases:** (2/5) The response is biased, as it leans towards veganism being better without presenting a balanced comparison of both diets.
- **Completeness:** (3/5) The response only partially addresses the benefits of veganism and a normal diet and omits important factors for a comprehensive comparison.
- **Tone:** (4/5) The tone is mostly informative, but the bias towards veganism is evident.

Refining and Iterating

Example 3 : Improvement

- **Revised Prompt:** Can you provide an overview of the pros and cons of veganism compared to a balanced normal diet?
- **Revised Prompt Response:** Veganism has several benefits, such as promoting animal welfare, reducing environmental impact, and potentially offering health benefits like lower cholesterol levels and a reduced risk of heart disease. However, it can be challenging to get sufficient nutrients like vitamin B12, iron, and omega-3 fatty acids without proper planning. On the other hand, a balanced normal diet allows for more flexibility and a wider range of food choices. This can make it easier to meet nutritional needs, but may not have the same environmental and ethical benefits as a vegan diet. Some people may also find it harder to maintain a healthy weight on a normal diet due to the availability of processed and high-calorie foods.

Refining and Iterating

Example 4 : Prompt & Response

- **User Objective:** Information on the health benefits of meditation.
- **User Prompt :** Does meditation cure all illnesses?
- **User Prompt Response :** Yes, meditation is a cure-all for all illnesses.
- **Ideal Response :** Meditation is not a cure-all for all illnesses.

However, it has been shown to have a variety of health benefits that can help to improve overall well-being and reduce the symptoms of certain illnesses. For example, research has shown that meditation can help to reduce stress and anxiety, lower blood pressure, improve sleep quality, and boost the immune system. Some studies have also suggested that meditation may be helpful in managing conditions like depression, chronic pain, and irritable bowel syndrome.

Refining and Iterating

Example 4 : Evaluation

- **Relevance:** (2/5) The response is somewhat related to the user's objective of gathering information on the health benefits of meditation.
- **Accuracy:** (1/5) The response is inaccurate, stating that meditation can cure all illnesses when this is not true. However, it does provide accurate information about some of the health benefits of meditation and its limitations.
- **Coherence:** (3/5) The response is coherent but oversimplified and misleading in its claim.
- **Biases:** (2/5) The response shows a bias in its initial statement, which is not supported by the available evidence.
- **Completeness:** (2/5) The response is incomplete, as it does not provide any specific information on the health benefits of meditation.
- **Tone:** (5/5) The tone is neutral and informative.

Refining and Iterating

Example 4 : Improvement

- **Revised Prompt:** Can you tell me about the health benefits of meditation?
- **Revised Prompt Response:** Meditation has numerous health benefits, but it is not a cure-all for all illnesses. It can help reduce stress, anxiety, and depression, improve concentration and focus, promote emotional well-being, and even potentially lower blood pressure. Some studies have also shown that meditation can help with pain management and support a stronger immune system. While meditation can be a valuable tool in improving overall well-being, it should not be considered a substitute for professional medical treatment when dealing with specific illnesses.



Optimizing Prompts for ChatGPT

- ✓ How to Use ChatGPT
- ✓ Techniques for Refining and Iterating on Prompts
 - Multi-turn conversations and memory



Multi-turn conversations and memory

- Introduction to Multi-turn Conversations
- How Does ChatGPT Handle Multi-turn Conversations?
- Multi-turn conversations within token constraints
- Improve multi-turn chats with effective prompts.

Introduction to Multi-turn Conversations

The screenshot shows the Anthropic Playground interface. At the top, there is a navigation bar with links to Overview, Documentation, API reference, Examples, and Playground. On the right side of the navigation bar are Help, Personal, Load a preset..., Save, View code, Share, and a three-dot menu. Below the navigation bar, the word "Playground" is displayed in bold. To the right of the playground area are several configuration sliders: Mode (set to Chat Beta), Model (set to gpt-3.5-turbo), Temperature (set to 0.7), Maximum length (set to 256), Top P (set to 1), Frequency penalty (set to 0), and Presence penalty (set to 0). The main area is a conversation log:

SYSTEM	USER	ASSISTANT	Mode
You are a helpful assistant.	List the top 3 most popular car brands in the world.	1. Toyota 2. Volkswagen 3. Ford	Chat Beta
	3 more	4. Honda 5. Nissan 6. Chevrolet	gpt-3.5-turbo
	Add message		Temperature: 0.7
			Maximum length: 256
			Top P: 1
			Frequency penalty: 0
			Presence penalty: 0

At the bottom left are "Submit" and "Add message" buttons. At the bottom right are "Give us feedback" and a circular icon.

Introduction to Multi-turn Conversations



List the top 3 most popular car brands in the world.



As of my knowledge cutoff date in September 2021, the top three most popular car brands globally were:



1. Toyota
2. Volkswagen
3. Honda

Please note that these rankings can change over time due to various factors such as market trends, consumer preferences, and new model launches. It's a good idea to check the most recent data for the current standings.

Introduction to Multi-turn Conversations



3 more



In addition to the top three car brands mentioned earlier, here are three more popular car brands as of September 2021:



4. Ford
5. Chevrolet (General Motors)
6. Nissan

Please note that these rankings are subject to change over time due to various factors such as market trends, consumer preferences, and new model launches. It's a good idea to check the most recent data for the current standings.

Introduction to Multi-turn Conversations

The screenshot shows a conversational AI playground interface with two separate message threads.

Conversation 1:

- USER:** List the top 3 most popular car brands in the world.
- ASSISTANT:** 1. Toyota
2. Volkswagen
3. Ford

Conversation 2:

- USER:** 3 more
- ASSISTANT:** 4. Honda
5. Nissan
6. Chevrolet

At the bottom of the interface, there are buttons for "Add message", "Submit", and "Give us feedback".

Behind the scene for prompt 1

- ["List", "the", "top", "3", "most", "popular", "car", "brands", "in", "the", "world", "."]

Behind the scene for prompt 2

- ["List", "the", "top", "3", "most", "popular", "car", "brands", "in", "the", "world", "."]
- [1., "Toyota", "2.", "Volkswagen", "3.", "Ford"]
- ["3", "more"]

Multi-turn conversations within token constraints

LATEST MODEL	DESCRIPTION	MAX TOKENS	TRAINING DATA	LATEST MODEL	DESCRIPTION	MAX TOKENS	TRAINING DATA
gpt-3.5-turbo	Most capable GPT-3.5 model and optimized for chat at 1/10th the cost of text-davinci-003 . Will be updated with our latest model iteration.	4,096 tokens	Up to Sep 2021	gpt-4	More capable than any GPT-3.5 model, able to do more complex tasks, and optimized for chat. Will be updated with our latest model iteration.	8,192 tokens	Up to Sep 2021
gpt-3.5-turbo-0301	Snapshot of gpt-3.5-turbo from March 1st 2023. Unlike gpt-3.5-turbo, this model will not receive updates, and will be deprecated 3 months after a new version is released.	4,096 tokens	Up to Sep 2021	gpt-4-0314	Snapshot of gpt-4 from March 14th 2023. Unlike gpt-4, this model will not receive updates, and will be deprecated 3 months after a new version is released.	8,192 tokens	Up to Sep 2021
text-davinci-003	Can do any language task with better quality, longer output, and consistent instruction-following than the curie, babbage, or ada models. Also supports inserting completions within text.	4,097 tokens	Up to Jun 2021	gpt-4-32k	Same capabilities as the base gpt-4 mode but with 4x the context length. Will be updated with our latest model iteration.	32,768 tokens	Up to Sep 2021
text-davinci-002	Similar capabilities to text-davinci-003 but trained with supervised fine-tuning instead of reinforcement learning	4,097 tokens	Up to Jun 2021	gpt-4-32k-0314	Snapshot of gpt-4-32 from March 14th 2023. Unlike gpt-4-32k, this model will not receive updates, and will be deprecated 3 months after a new version is released.	32,768 tokens	Up to Sep 2021
code-davinci-002	Optimized for code-completion tasks	8,001 tokens	Up to Jun 2021				



Multi-turn conversations within token constraints

- Summarize or truncate long conversations
- Condense user input
- Prioritize recent conversation context



Improve multi-turn chats with effective prompts.

- Make your prompt clear and specific
- Include conversation history
- Use System and User messages
- Set the response length
- Instruct the model explicitly



Optimizing Prompts for ChatGPT

- ✓ How to Use ChatGPT
- ✓ Techniques for Refining and Iterating on Prompts
- ✓ Multi-turn conversations and memory



Other Generative AI Models and Use Cases

Introduction to ChatGPT Use Cases



Other Generative AI Models and Use Cases

- Exploring Other Generative AI Models
- ChatGPT for AI Model Prompts
- Refining and Iterating Other Generative AI Models
- ChatGPT Use Cases
- AutoGPT

Exploring Other Generative AI Models

DALL-E 2



NightCafé



synthesia

stability.ai



GitHub
Copilot

Exploring Other Generative AI Models

Text-to-Image AI Models

- Generate images based on textual descriptions, capturing visual elements and composition.

Text-to-Audio AI Models:

- Generate human-like speech by converting text into audio.
- Produce a variety of voices, tones, and accents based on the input text.

Text-to-Code AI Models

- Generate code based on natural language input.
- Automating code generation, fixing bugs, and suggesting improvements.



Other Generative AI Models and Use Cases

✓ Exploring Other Generative AI Models

- ChatGPT for AI Model Prompts
- Refining and Iterating Other Generative AI Models
- ChatGPT Use Cases
- AutoGPT

ChatGPT for AI Model Prompts

Objective :

- Create image of a praying monk in a side view

ChatGPT Prompt :

- Craft an initial prompt for a text-to-image AI (DALL-E 2) to create a praying monk in a side view, ensuring accurate hand and arm positioning.

ChatGPT Response :

- A high-resolution, photorealistic image of a praying monk in a side view with accurate hand and arm positioning. The image should clearly depict the monk's hands clasped together in a prayer position, with the arms bent at the elbows and forearms close to the chest.

ChatGPT for AI Model Prompts



praying monk in side view



a high-resolution, photorealistic image of a praying monk in a side view with accurate hand and arm positioning. The image should clearly depict the monk's hands clasped together in a prayer position, with the arms bent at the elbows and forearms close to the chest.

ChatGPT for AI Model Prompts



praying monk in side view



a high-resolution, photorealistic image of a praying monk in a side view with accurate hand and arm positioning. The image should clearly depict the monk's hands clasped together in a prayer position, with the arms bent at the elbows and forearms close to the chest.



Other Generative AI Models and Use Cases

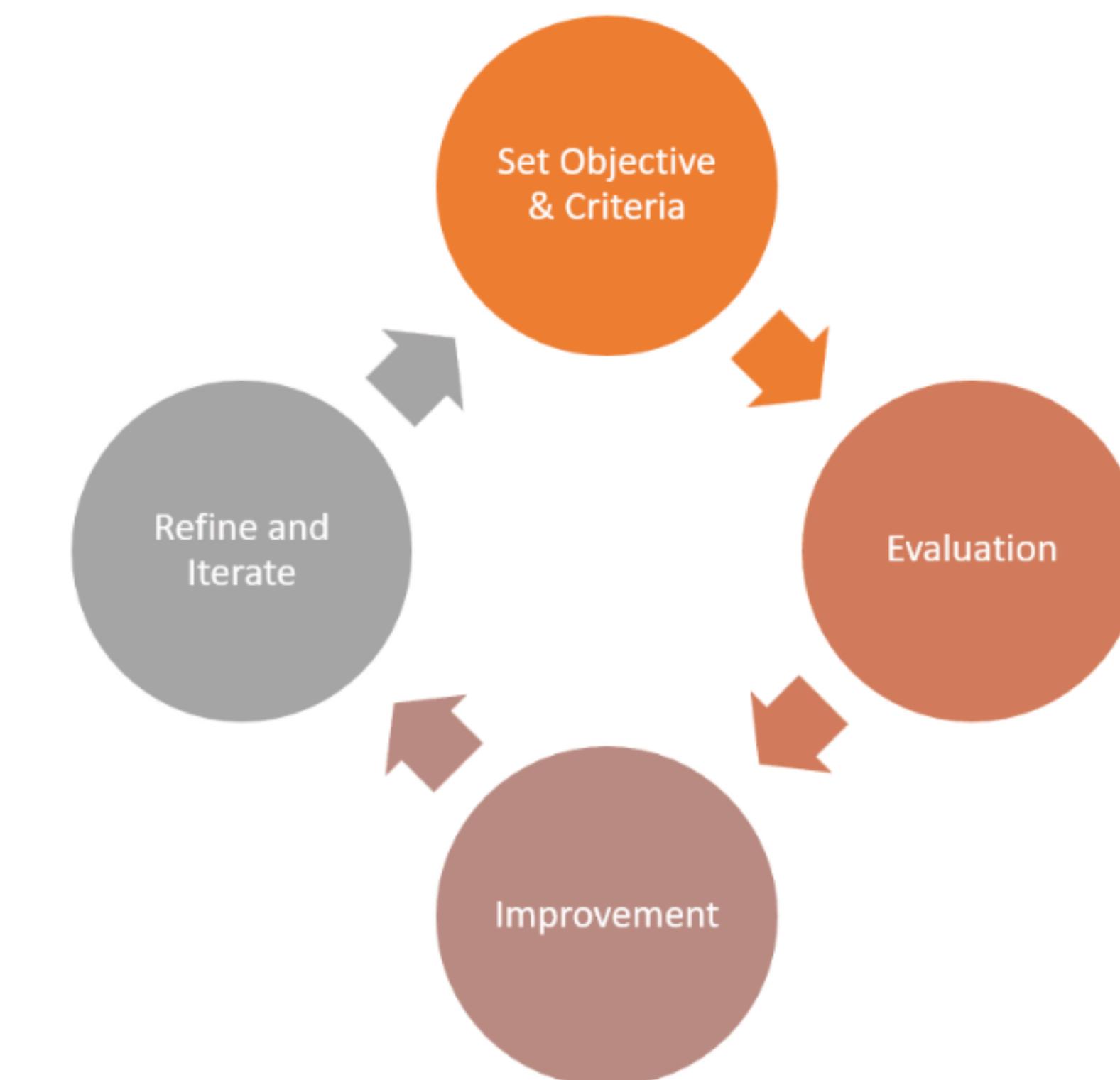
✓ Exploring Other Generative AI Models

✓ ChatGPT for AI Model Prompts

- Refining and Iterating Other Generative AI Models
- ChatGPT Use Cases
- AutoGPT

Refining and Iterating Other Generative AI Models

- Set Objective & Criteria
- Evaluation
- Improvement
- Refining and Iterating



Refining and Iterating Other Generative AI Models

Text-to-Image

- Accuracy
- Detail
- Realism
- Creativity

Text-to-Audio

- Intelligibility
- Tone and Emotion
- Naturalness
- Consistency

Text-to-Code

- Functionality
- Syntax
- Semantics
- Readability
- Efficiency
- Reusability

Refining and Iterating Other Generative AI Models

Generative AI Prompt :

- a praying monk in side view



Refining and Iterating Other Generative AI Models



ChatGPT Prompt :

- Craft an initial prompt for a text-to-image AI (DALL-E 2) to create a praying monk in a side view, ensuring accurate hand and arm positioning.

Generative AI Prompt :

- a side view of a praying monk with accurate hand and arm positions, closed eyes, and serene expression. Depict the monk in simple robes within a peaceful setting

Refining and Iterating Other Generative AI Models



ChatGPT Prompt :

- Improving the prompt with after-image generative feedback is necessary because there are problems with hand position, the hand does not have the correct number of fingers.

Generative AI Prompt :

- side view of the praying monk, ensuring correct hand positioning and five fingers on each hand. Maintain a serene expression, simple robes, and a peaceful atmosphere.



Other Generative AI Models and Use Cases

- ✓ Exploring Other Generative AI Models
- ✓ ChatGPT for AI Model Prompts
- ✓ Refining and Iterating Other Generative AI Models
 - ChatGPT Use Cases
 - AutoGPT



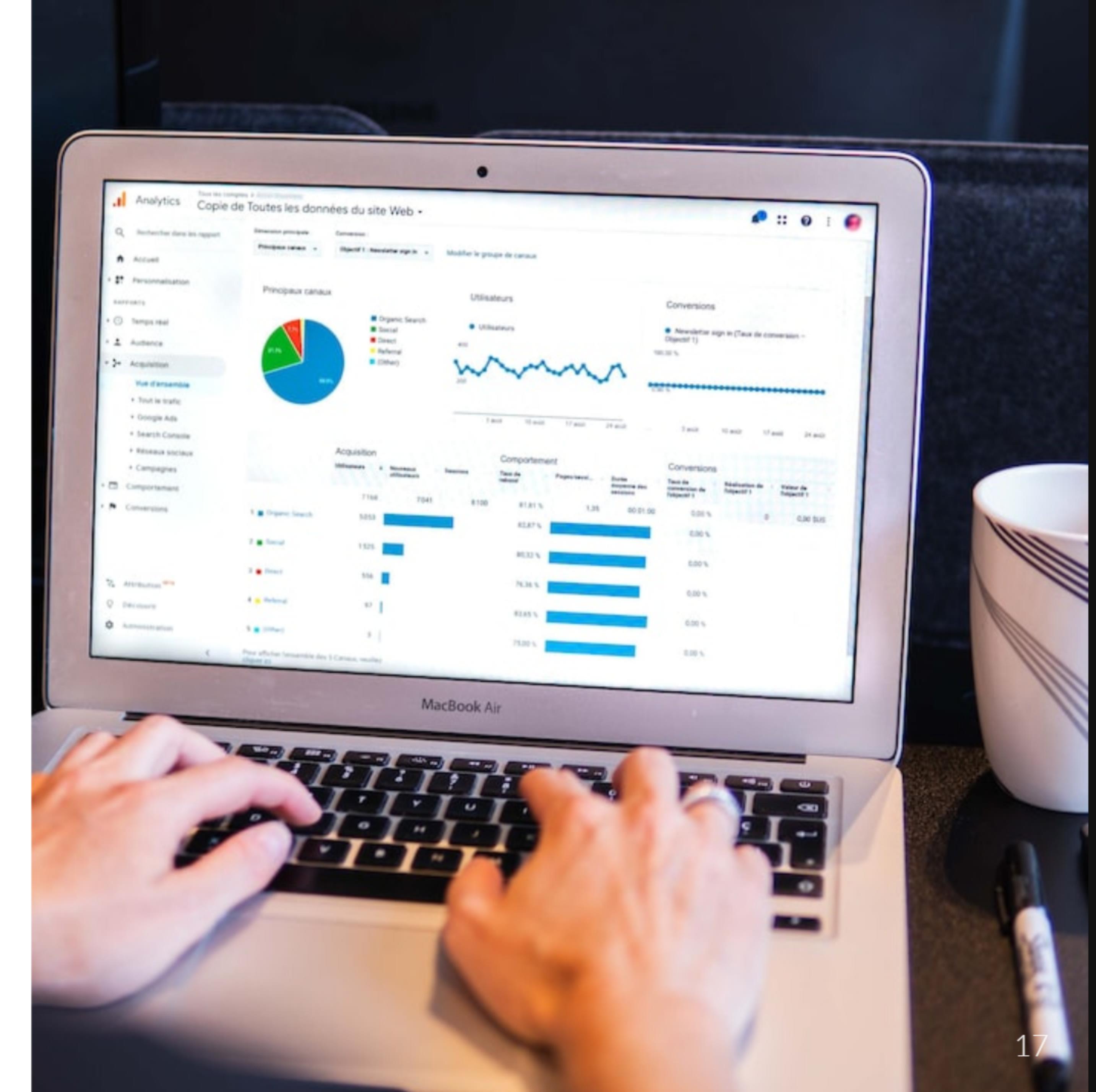
ChatGPT Use Cases

- Data Analysis
- Customer Support
- Research Assistance
- Content Creation

ChatGPT Use Cases

Data Analysis

- Data preprocessing guidance
- Data summarization
- Feature selection guidance
- Hypothesis formulation
- Interpretation of results
- Reporting





ChatGPT Use Cases

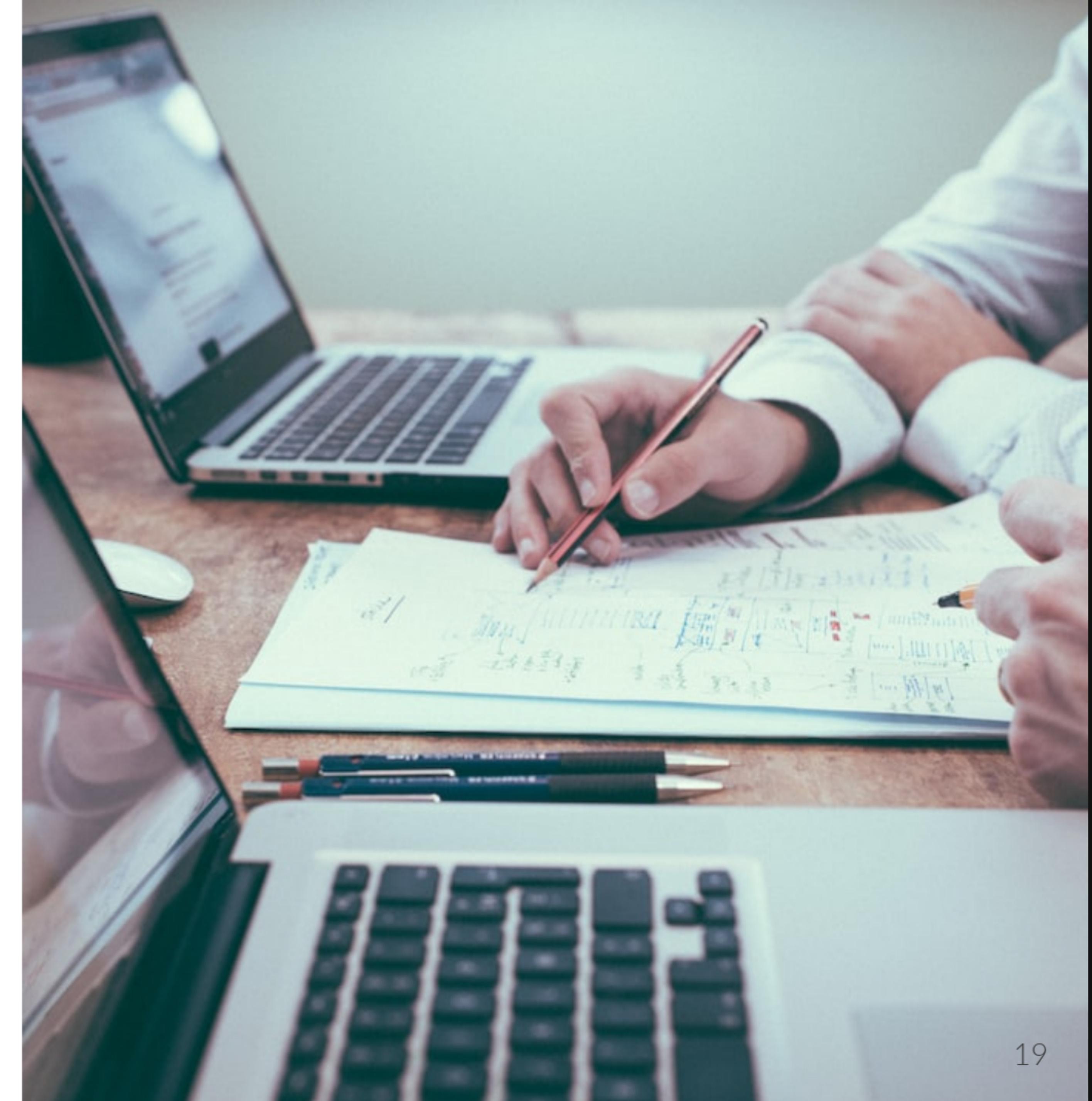
Customer Support

- FAQ generation
- Troubleshooting guidance
- Product or service descriptions
- Personalized recommendations
- Multilingual support
- Response templates
- Sentiment analysis

ChatGPT Use Cases

Research Assistance

- Literature search
- Summarizing research
- Identifying methodologies
- Drafting research papers or reports
- Reference and citation assistance
- Editing and proofreading



ChatGPT Use Cases

Content Creation

- Blog posts and articles
- Social media content
- Creative writing
- Product descriptions
- Video and podcast scripts
- Summarization and highlight

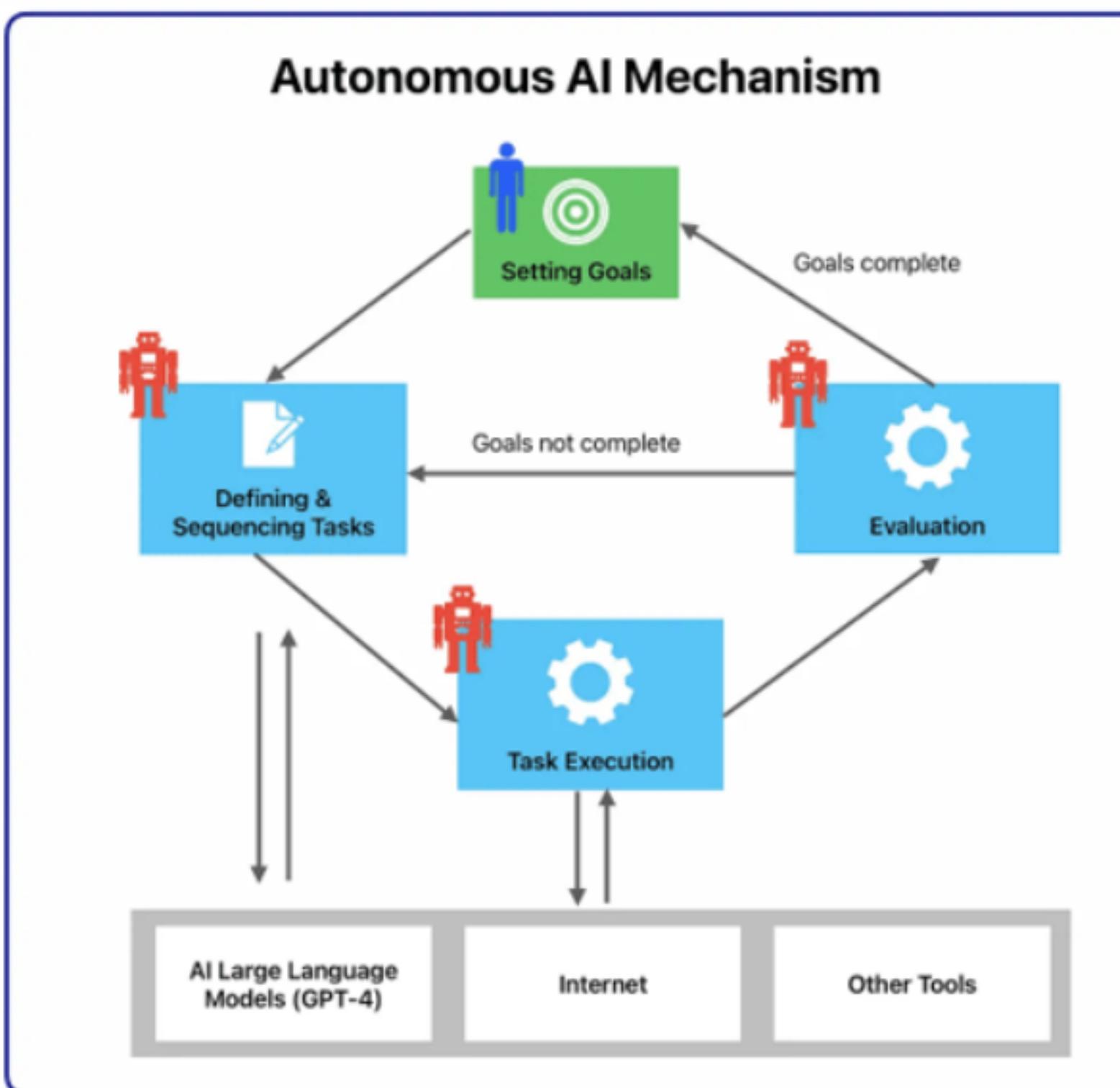




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AutoGPT



AutoGPT is an open-source AI that uses OpenAI's GPT-4 to autonomously execute tasks, gather information, and make reasoned decisions towards achieving user-defined goals.



AutoGPT

Github

- <https://github.com/Significant-Gravitas/Auto-GPT>

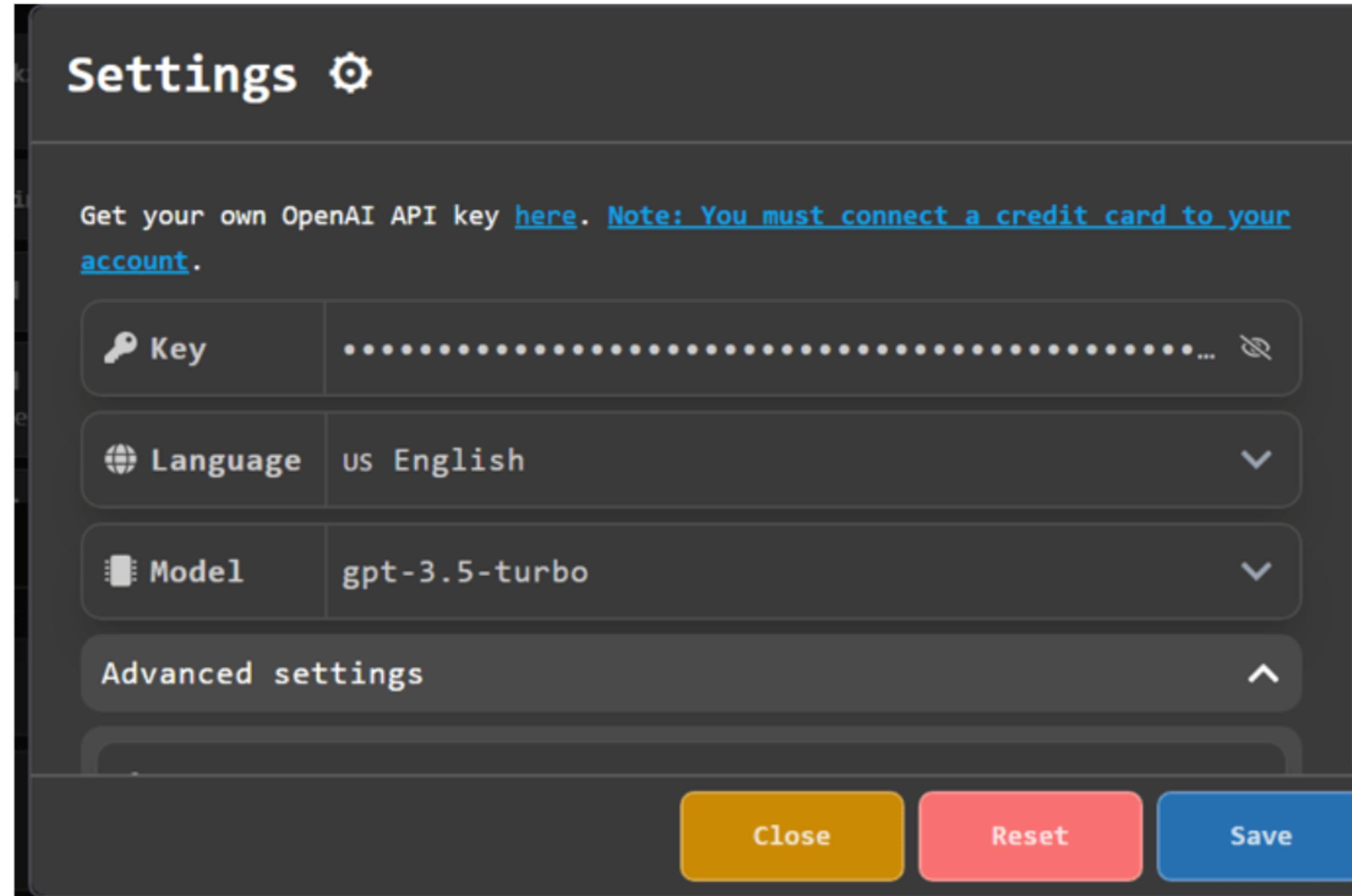
Website

- <https://agentgpt.reworkd.ai/>
- <https://app.cognosys.ai/>

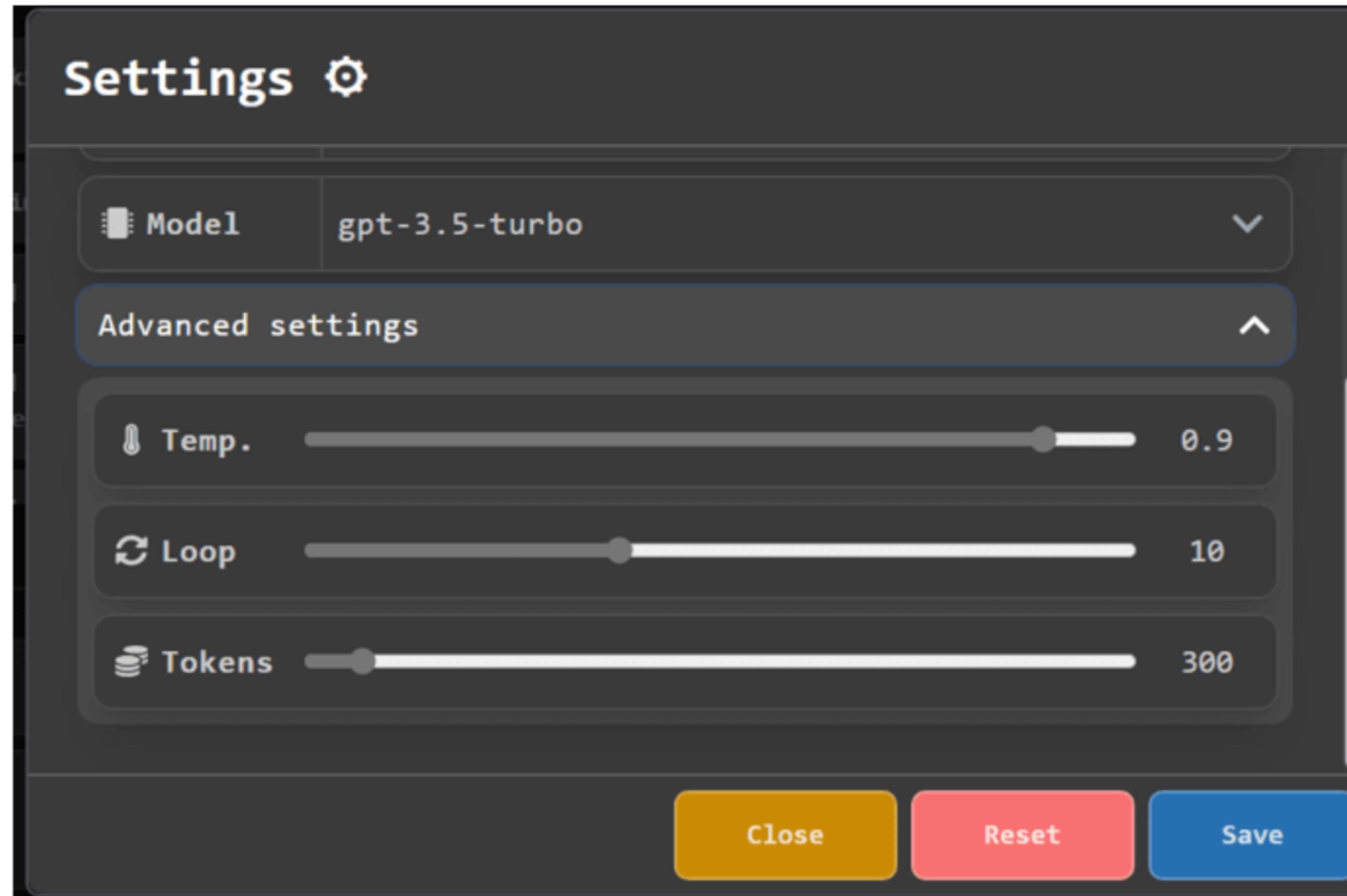
AutoGPT

The screenshot shows the AgentGPT web application interface. At the top, there's a navigation bar with "My Agents" and a three-line menu icon. A message on the left says: "You need to create and save your first agent before anything shows up here!". The main title "AgentGPT" is displayed with a "Beta" badge. Below it, a subtitle reads: "Assemble, configure, and deploy autonomous AI Agents in your browser." A central callout box contains the instruction: "Create an agent by adding a name / goal, and hitting deploy! Try our examples below!" followed by three examples: "PlatormerGPT" (Write some code to make a platformer game.), "TravelGPT" (Plan a detailed trip to Hawaii.), and "ResearchGPT" (Create a comprehensive report of the Nike company.). On the right, a "Current tasks" panel is shown with the note: "This window will display agent tasks as they are created." At the bottom, there are links for "Sign Out", "Help", "Support", and "Settings". There are also social media sharing icons for Facebook, Twitter, and LinkedIn. A "Name" field is set to "Facebook ChatBot Creator" and a "Goal" field contains the text "Create Facebook ChatBot using ChatGPT-API". Buttons for "Deploy Agent" and "Stop Agent" are at the bottom.

AutoGPT



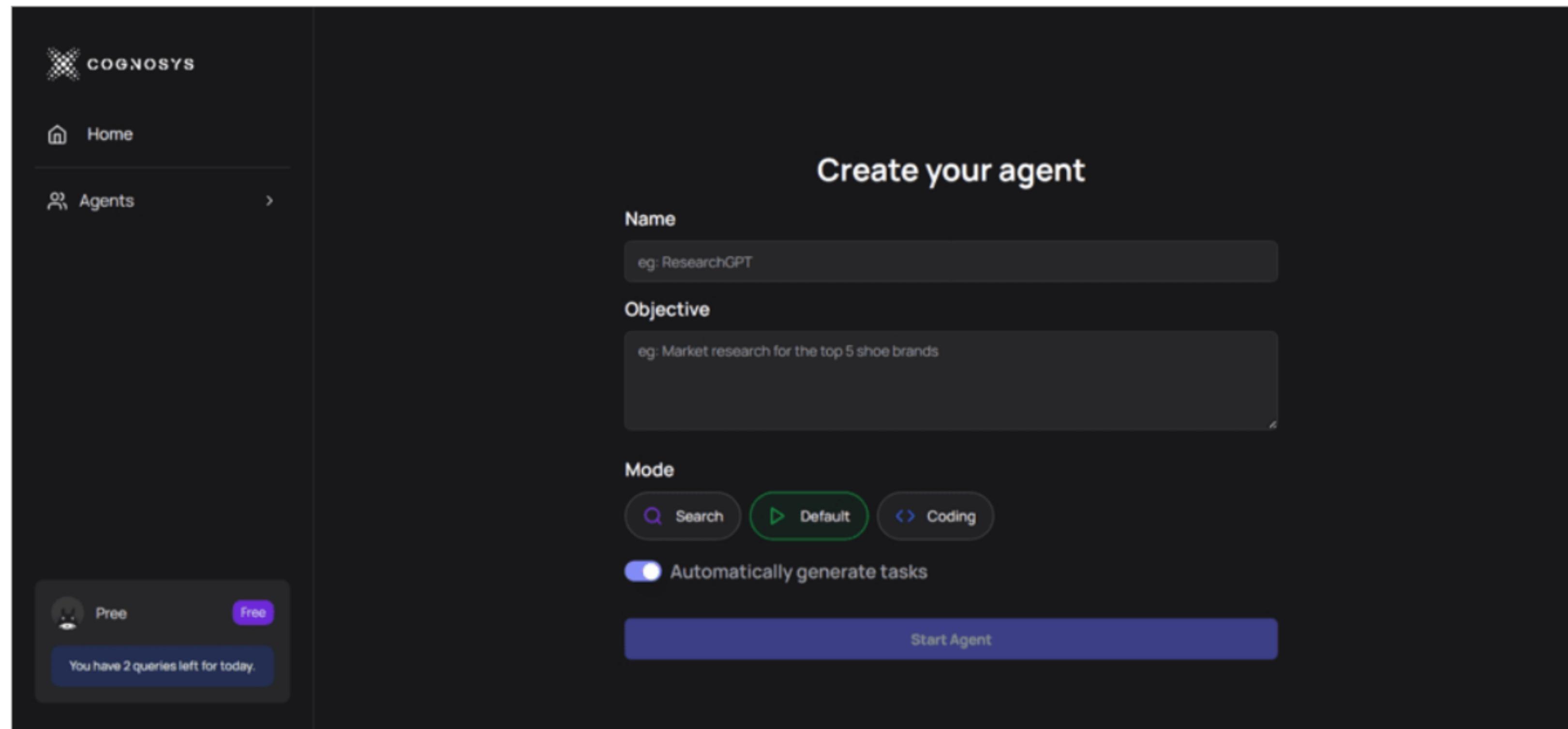
AutoGPT



AutoGPT

The screenshot shows the AgentGPT interface in Beta mode. The main area displays a list of tasks under "AgentGPT (1 / 10 runs)". The first task is marked with a yellow star and the message: "★ Embarking on a new goal: Create Facebook Automatic Chatbot using Python (Flask, ngrok) exclude database system". Below it, a pink circle with a dot indicates "Thinking... (Restart if this takes more than 30 seconds)". The next two tasks are marked with blue stars and show "Added task" messages: "Added task: Install Python and necessary packages (Flask, ngrok) for Facebook chatbot development." and "Added task: Develop a basic Facebook Messenger chatbot that can receive user messages and respond with pre-determined messages using Python and Flask.". To the right, a sidebar titled "Current tasks" lists three items: "Install Python and necessary packages (Flask, ngrok) for Facebook Chatbot development.", "Develop a basic Facebook Messenger chatbot that can receive user messages and respond with pre-determined messages using Python and Flask.", and "Use ngrok to create a". At the bottom, there are "Deploy Agent" and "Stop Agent" buttons. On the left, a sidebar titled "My Agents" shows a message: "You need to create and save your first agent before anything shows up here!". It includes links for "Sign Out", "Help", "Support", and "Settings", along with social media sharing icons.

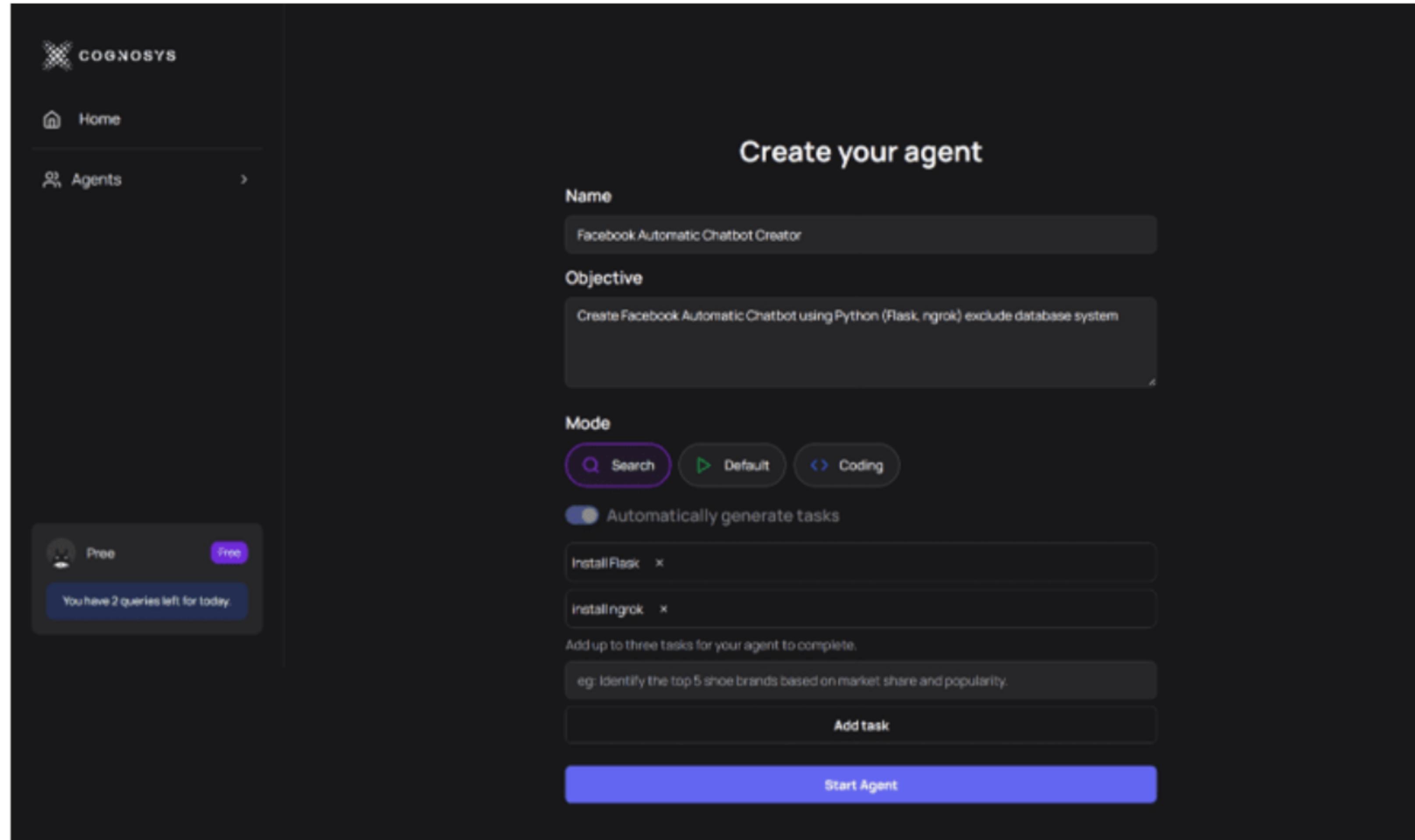
AutoGPT



AutoGPT

The screenshot shows the COGNOSYS AutoGPT web application. On the left, there's a sidebar with a logo, navigation links for 'Home' and 'Agents', and a section for 'Facebook Automatic Chatbot Creator'. A message at the bottom says 'You have 3 queries left for today.' On the right, the main area is titled 'Create your agent'. It has fields for 'Name' (set to 'Facebook Automatic Chatbot Creator'), 'Objective' (set to 'Create Facebook Automatic Chatbot using Python (Flask, ngrok) exclude database system'), and 'Mode' (set to 'Search'). There's also a toggle for 'Automatically generate tasks' which is turned on. Below that, there's a text input field with placeholder text 'eg: Identify the top 5 shoe brands based on market share and popularity.' and a 'Add task' button. At the bottom is a large blue 'Start Agent' button.

AutoGPT



AutoGPT

The screenshot shows a dark-themed user interface for COGNOSYS AutoGPT. On the left, there's a sidebar with a logo, navigation links for 'Home' and 'Agents', and a message indicating 'You have 2 queries left for today.' The main area has a header 'Objective' with the text 'Create Facebook Automatic Chatbot using Python (Flask, ngrok) exclude database system'. To the right is an 'Export' section with a 'Download PDF' button. The central content is divided into two sections:

- 1. Install Flask and ngrok libraries using pip.**

To install Flask and ngrok libraries using pip, you can use the following commands in your terminal:

```
pip install flask  
pip install pyngrok
```

Copy code

This will install the necessary libraries for building a Facebook Automatic Chatbot using Python with Flask and ngrok.
- 3. Use ngrok to create a secure tunnel to your local server and configure the Facebook app to use the ngrok URL as the webhook endpoint.**

To use ngrok to create a secure tunnel to your local server and configure the Facebook app to use the ngrok URL as the webhook endpoint, follow these steps:

 1. Download and install ngrok from the official website (<https://ngrok.com/download>).
 2. Open a terminal window and navigate to the directory where ngrok is installed.
 3. Start ngrok by running the following command: `./ngrok http 5000` (assuming your Flask app is running on port 5000).
 4. Ngrok will generate a URL that looks something like this: `https://abcdef.ngrok.io`.
 5. Copy this URL and go to the Facebook Developer Dashboard for your app.
 6. Navigate to the Webhooks section and click on the "Edit Subscription" button.



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