


# Prompt programming

# Tools

- ChatGPT
- OpenAI Playground
- ArduinoIDE

ChatGPT 4 ▾




### How can I help you today?

- Make up a story**  
about Sharky, a tooth-brushing shark superhero
- Plan a trip**  
to see the northern lights in Norway
- Recommend activities**  
for a team-building day with remote employees
- Brainstorm incentives**  
for a customer loyalty program in a small bookstore

Message ChatGPT...

MIA x CC workspace chats aren't used to train our models. ChatGPT can make mistakes.



Playground Chat

LED strip programming Save View code Share

**SYSTEM**

You are a helpful code assistant that can teach a junior developer how to code. Your language of choice is Arduino (C++). Don't explain the code, just generate the code block itself.

You are programming an Arduino Nano.

On pin 6 is connected an LED strip made of 120 leds RGBW.

**USER** Write a piece of code to light up the entire strip.

**ASSISTANT**

```
```cpp
#include <Adafruit_NeoPixel.h>

#define LED_PIN 6
#define LED_COUNT 120

Adafruit_NeoPixel strip = Adafruit_NeoPixel(LED_COUNT, LED_PIN, NEO_RGBW
+ NEO_KHZ800);

void setup() {
  strip.begin();
  strip.show();
}

void loop() {
  for(int i = 0; i < LED_COUNT; i++) {
    strip.setPixelColor(i, strip.Color(255, 255, 255, 255));
  }
  strip.show();
}
```
```

Add message

Submit

Model

gpt-3.5-turbo

Temperature 1

Maximum length 256

Stop sequences

Enter sequence and press Tab

Top P 1

Frequency penalty 0

Presence penalty 0

API and Playground requests will not be used to train our models. [Learn more](#)

Give us feedback

LED strip programming ✕ ⌵

Save

View code

Share

⋮

code to light up the entire strip.

Adafruit\_NeoPixel.h>


LED\_COUNT 120

```
strip = Adafruit_NeoPixel(LED_COUNT, LED_PIN, NEO_RGBW
```

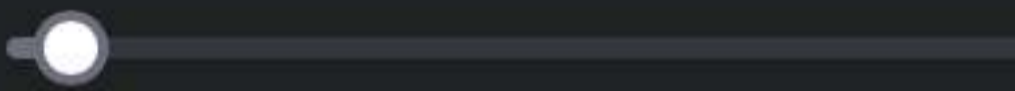
Model

gpt-3.5-turbo ⌵

Temperature 1



Maximum length 256



Stop sequences  
Enter sequence and press Tab

Top P 1

# Playground

Chat ↕

## SYSTEM

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On pin 6 is connected an LED strip made of 120 leds RGBW.

## USER

Write a pi

## ASSISTANT

```
```cpp  
#include
```

```
#define L  
#define L
```

```
Adafruit_
```

**USER**

Write a piece of code to light up the entire strip.

**ASSISTANT**

```
```cpp
#include <Adafruit_NeoPixel.h>

#define LED_PIN 6
#define LED_COUNT 120

Adafruit_NeoPixel strip = Adafruit_NeoPixel(LED_COUNT, LED_PIN, NEO_KHZ800);

void setup() {
```



Playground Chat

LED strip programming Save View code Share

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  }
  strip.show();
}
```
```

Model: gpt-3.5-turbo

Temperature: 1

Maximum length: 256

Stop sequences: Enter sequence and press Tab

Top P: 1

Frequency penalty: 0

Presence penalty: 0

API and Playground requests will not be used to train our models. [Learn more](#)

Submit Give us feedback



# Temperatura? 🥵

|             |   |
|-------------|---|
| Variabile   | Tra 0 e 2.<br>Valore standard 1   |
| Spiegazione | Controlla la randomicità delle risposte.<br>Più il valore è vicino a zero e più il modello diventerà deterministico e ripetitivo.<br>Più il valore è vicino a 2 più il modello diventerà creativo, ma le risposte potrebbero essere errate. |

# Esempi di Prompt - Base ↴

## System Prompt

You are a helpful code assistant that can teach a junior developer how to code. Your language of choice is Arduino (C++). Don't explain the code, just generate the code block itself.

You are programming an Arduino Nano.

On pin 6 is connected an LED strip made of 120 leds RGBW.

+

## User Prompt

Write a piece of code to light up the entire strip.

# Esempi di Prompt - Commento ↴

## System Prompt

You are a helpful code assistant that can teach a junior developer how to code. Your language of choice is Arduino (C++). Don't explain the code, just generate the code block itself.

You are programming an Arduino Nano.

On pin 6 is connected an LED strip made of 120 leds RGBW.

+

## User Prompt

""""

1. Import a potentiometer
2. Import a button
3. Combine the components in order to switch on or off the led strip and change the color.

""""

# Esempi di Prompt - Funzione ↴

## System Prompt

You are a helpful code assistant that can teach a junior developer how to code. Your language of choice is Arduino (C++). Don't explain the code, just generate the code block itself.

You are programming an Arduino Nano.

On pin 6 is connected an LED strip made of 120 leds RGBW.

+

## User Prompt

# function to use a distance sensor to change the color based on the distance between red (0-2 centimeter), orange (3-5 centimeter), yellow (5-8 centimeter), green (8+ centimeter)

# Esempi di Prompt - Spiegazione ↴

## System Prompt

You are a helpful code assistant that can teach a junior developer how to code. Your language of choice is Arduino (C++).  
You are programming an Arduino Nano.  
On pin 6 is connected an LED strip made of 120 leds RGBW.  
Just explain the code provided by the user.

+

## User Prompt

```
void loop() {  
  int distance = getDistance(); //  
  assuming this function reads the  
  distance from sensor  
  [...]  
}
```

# Esempi di Prompt - Bonus 🇮🇹 ↘

## System Prompt

Sei un'assistente di codice che può insegnare a uno sviluppatore junior come sviluppare. Il linguaggio scelto è Arduino (C++). Non spiegare il codice, ma genera il blocco di codice stesso. State programmando un Arduino Nano. Al pin 6 è collegata una striscia LED composta da 120 led RGBW.

+

## User Prompt

Scrivi un codice che accenda tutta la striscia led



# Ma... ChatGPT non è da solo

## Claude.ai

Accesso tramite VPN 🇺🇸

The screenshot shows the Claude AI chat interface. At the top, it says "AI +" and "Lighting an RGBW LED strip with Arduino code". A message from the user (MS) asks for code to light an RGBW LED strip on an Arduino Nano. The AI response is a C++ code block that defines the LED pin and count, initializes the strip, and sets all pixels to white with a 100ms delay between updates.

```
cpp Copy code

#include <Adafruit_NeoPixel.h>


#define LED_PIN 6
#define LED_COUNT 120

Adafruit_NeoPixel strip(LED_COUNT, LED_PIN, NEO_GRBW + NEO_KHZ800);

void setup() {
  strip.begin();
  strip.show();
}

void loop() {
  for (int i = 0; i < LED_COUNT; i++) {
    strip.setPixelColor(i, strip.Color(255, 255, 255, 255));
  }
  strip.show();
  delay(100);
}
```

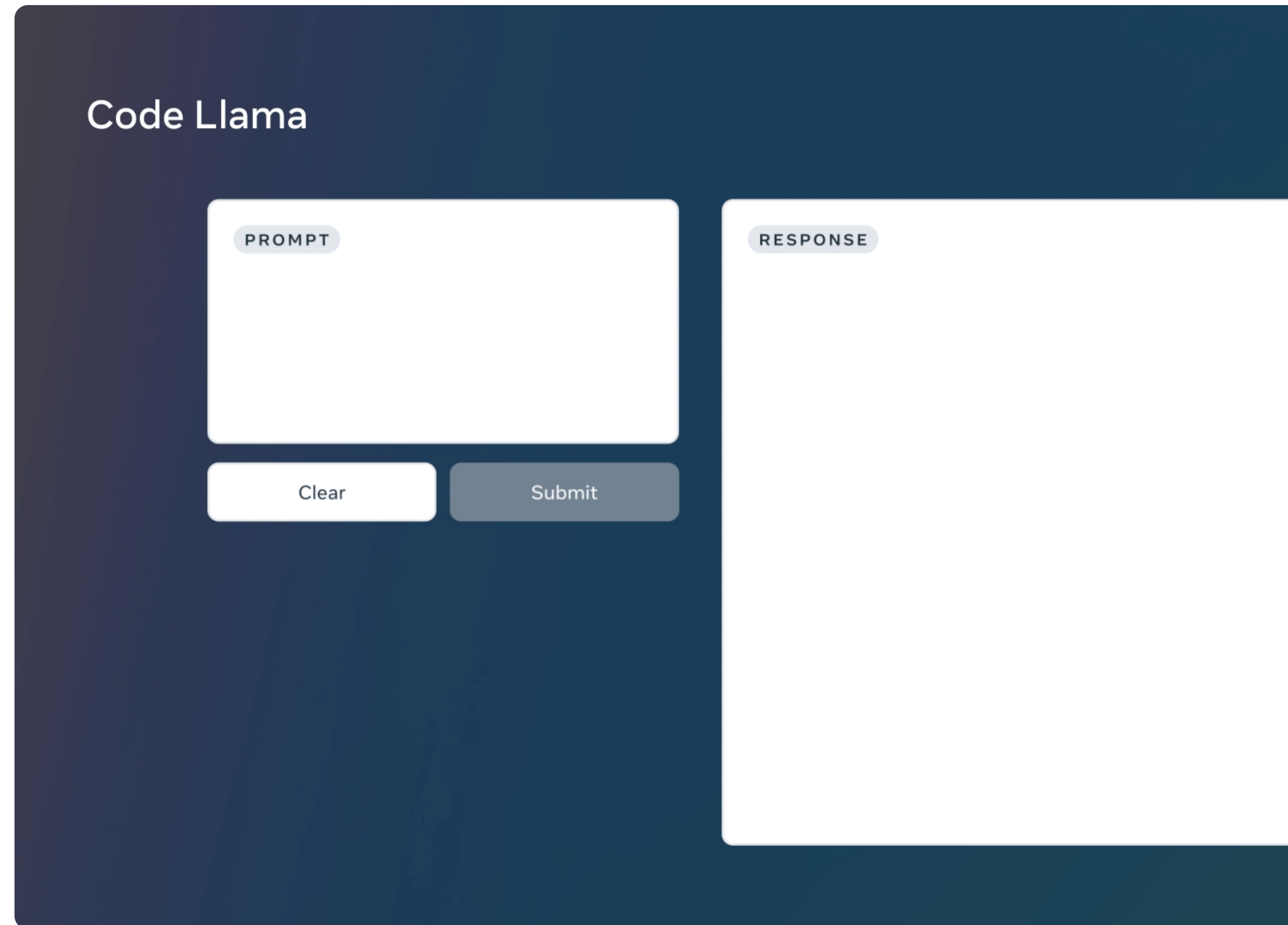
Subscribe to Pro and get **Claude 3 Opus**, our most intelligent model. [Subscribe to Pro](#) ×

Reply to Claude... 

Claude 3 Sonnet

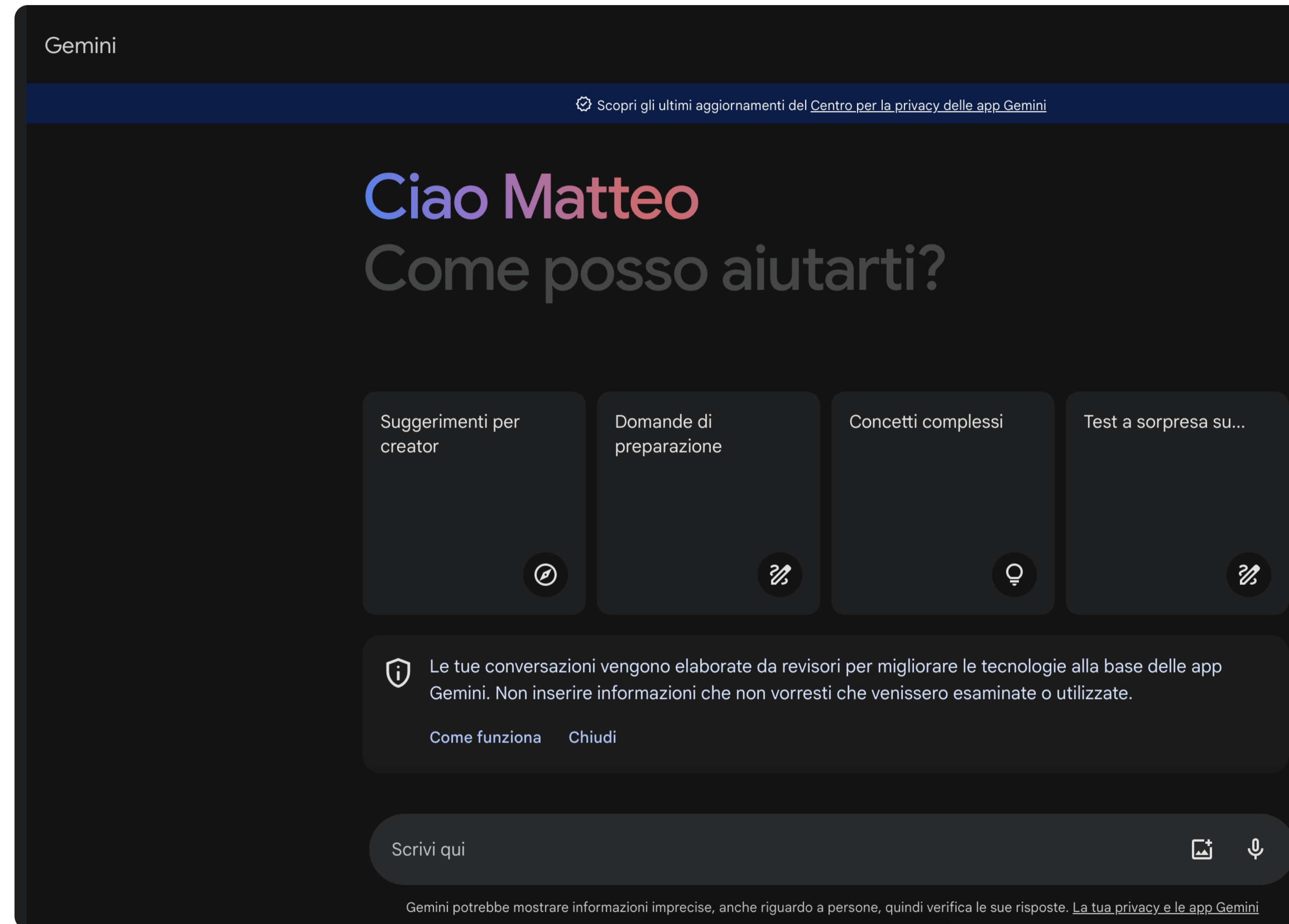
# Ma... ChatGPT non è da solo

## Code Llama



# Ma... ChatGPT non è da solo

## Gemini



**Il miglior modo per imparare a usare sistemi basati su IA è sperimentare e iterare.**

