

Project Goal: Create a simple text completion application using a pre-trained AI model through an API.

Experimentation and Evaluation

First prompt

- Prompt: Why is the sky blue?
- Settings
 - Temperature = 0.7
 - Max_tokens = 100
 - Top_p = 0.75
- Response:

The sky appears blue to us on Earth because of the way the Earth's atmosphere scatters sunlight. When the sun's light reaches the Earth's atmosphere, it is scattered in all directions by all the gases and particles in the air. Blue light is scattered more than other colors because it travels as shorter, smaller waves. This is known as Rayleigh scattering. Therefore, when we look up at the sky, we are seeing blue light from the sun scattered everywhere, causing the sky to appear

Second prompt

- Prompt: Continue this story
- Settings
 - Temperature = 0.5
 - Max_tokens = 150
 - Top_p = 0.20.
- Response:

"What sort of place is this? Where are we?" Alex shouted into the void. "I don't know. We are utterly alone here, battered by this relentless wind. And yet the plane, the wreckage, it's all gone. This isn't making sense!" Jason replied, his words carried away by the wind. "Then why are we here? Why have you brought us here, Jason?" Alex's words held a note of suspicion and fear. "

Third prompt

- Prompt: Summarize the plot of Harry Potter
- Settings:
 - Temperature = 0.8
 - Max_tokens = 300
 - Top_p = 0.20
- Response:

The Harry Potter series follows the adventures of a young wizard, Harry Potter, and his friends, Hermione Granger and Ron Weasley, students at Hogwarts School of Witchcraft and Wizardry. The main story arc concerns Harry's struggle against Lord Voldemort, a dark wizard who intends to kill him someday with a curse placed on him when he was a baby - and his quest to destroy Harry

Potter. Over the course of the series, Harry learns about his true identity as a

Fourth prompt

- Prompt: Explain why carbon monoxide is dangerous
- Settings:
 - Temperature = 0.75
 - Max_tokens = 300
 - Top_p = 0.9
- Response:

Carbon monoxide (CO) is a colorless, odorless, and tasteless gas that is toxic to humans and can cause severe health issues, including death, if gone undetected. The reason carbon monoxide is dangerous is due to its nature as a silent killer. It is produced by various household appliances such as heaters, furnaces, fireplaces, and ovens, as well as by vehicles and other combustion sources. When inhaled, carbon monoxide binds to hemoglobin in the blood, displacing oxygen and causing oxygen deprivation

Fifth prompt

- Prompt: Write a two sentence horror story
- Settings:
 - Temperature = 0.3
 - Max_tokens = 75
 - Top_p = 0.15
- Response:

The boy was alone in the house, but something was watching him, something that did not want him to escape. His heartbeat quickens, and he realizes with a growing sense of dread that he does not know, nor will he ever know, what it was.

Analysis

All the responses from the prompts I've tried are coherent and relevant. From the informational and instructional prompts, I don't notice anything that's blatantly incorrect or biased. I noticed that when the top_p setting is higher, the responses are less vague. The model performs well when the temperature and top_p values are high, because the responses tend to be more in depth with those settings. An issue I noticed is that the responses never end in a complete sentence, until I specified that the response was supposed to be two sentences. So I would improve the application by adding a function that makes sure the last sentence is complete before the model runs out of tokens, and I would add something to validate facts.