Zero Shot and Few Shot Prompting

How to use Generative AI to create content

Monkey See Monkey Do

So far we have learned that LLMs are trained on a vast amount of data and build assumptions of the world.

When we query an LLM without any examples, we are utilizing it's prebuilt knowledge of the world to answer the prompt.

Alternatively when we provide examples, then we are guiding the LLM to learn from new information

Zero Shot Prompting

LLMs are capable of answering prompts with zero shots. This is providing a prompt without any context.

Example:

Classify the text into neutral, negative or positive.

Text: I think the vacation is okay.

Sentiment:

Output:

Neutral

In the previous example, the LLM already understands sentiment so it is able to provide a response to the prompt. That's Zero Shot prompting at work

Few Shot Prompting

LLMs are also capable of performing more complex operations using in context learning.

Here we provide some examples and the LLM can learn from the context of the prompt in order to give a better answer.

Example:

A "whatpu" is a small, furry animal native to Tanzania. An example of a sentence that uses

the word whatpu is:

We were traveling in Africa and we saw these very cute whatpus.

To do a "farduddle" means to jump up and down really fast. An example of a sentence that uses

the word farduddle is:

Output:

When we won the game, we all started to farduddle in celebration.

We see here that the model kinda learned the task with just one example. From here we can expand on that and give it 3-shots, 5-shots, or more.

Limitations to few shot prompting

Few shot prompting works for many tasks but falls short with complex reasoning tasks.

For example:

Prompt:

>   The odd numbers in this group add up to an even number: 15, 32, 5, 13, 82, 7, 1.
>
>   A:

Output:

>   Yes, the odd numbers in this group add up to 107, which is an even number.

Notice how that wasn't a perfect answer. This highlights the limitations of using few shot prompting. To answer that question we will need more advanced prompting techniques