Prompt Engineering

Prompt Engineering:-

Prompt engineering is the process of structuring an instruction that can be interpreted and understood by a generative AI model.



• write, refine and optimize prompts

perfect the interaction between humans and Al

continuously monitor those prompts

• maintain an up-to-date prompt



Why Prompt Engineering?

Lets see one demo:

Prompt-1

Correct my paragraph: "Today was great day in the world for me I went Disneyland with my mom. It coukd have been better if it wasn't raining."

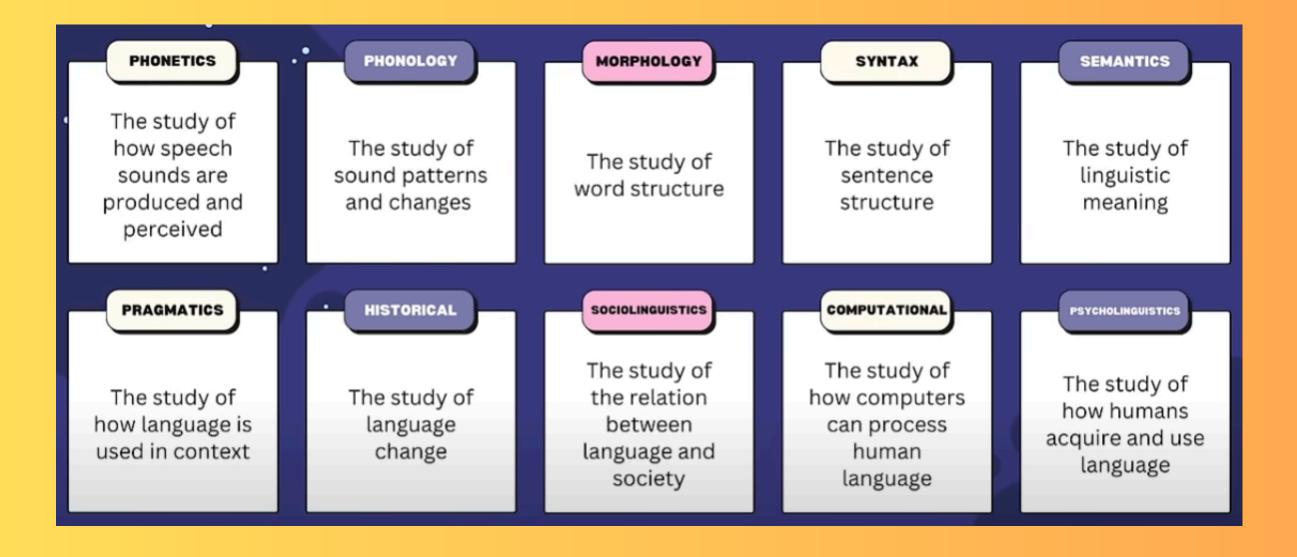
Why Prompt Engineering?

Prompt-2

"I want you to act as a spoken English teacher. I will speak to you in English and you will reply to me in English to practice my spoken English. I want you to keep your reply neat, limiting the reply to 100 words. I want you to strictly correct my grammar mistakes and typos. I want you to ask me a question in your reply. Now let's start practicing, you could ask me a question first. Remember, I want you to strictly correct my grammar mistakes, typos and factual errors"

Linguistics:-

Linguistics is the study of language



Linguistics:-

Linguistics are the key to prompt engineering

Generative Al Model (LLMs)

Model	Vendor/Creator
GPT(GPT-3, GPT-4, etc.)	OpenAl
BERT	Google
LaMDA	Google
PaLM	Google
BLOOM	Hugging Face
LLaMA	Meta
Claude	Anthropic
NeMO LLM	Nvidia
Generate	Cohere

Best Practices to design a prompt

- Clear instruction
- Adopt a persona
- Specify the format
- Avoid leading the answer
- Limit the scope

Best Practices to design a prompt

- When is the election
- when is the next presidential election in USA
- write a code to filter out ages from data
- write a java code to filter out ages from data
- "Write a poem for a sister's high school graduation that will be read out to family and close friend."
- "Write a poem as Helena. Helena is 25 years old and an amazing writer. Her writing style is similar to the famous 21st-century poet Rupi Kaur. Writing as Helena, write¹ a poem for her 18-year-old sister to celebrate her sister's high school graduation.² This will be read out to friends and family at the gathering."

Best Practices to design a prompt

- when is chrismas in america
- what is Bappy's favourite types of food
- "what restaurant should i take Bappy to in Dubai this weekend?"

Types of prompt:

- Zero-short Prompting
- Few-short Prompting

Al Hallucination

An AI Hallucination is when a large language model (LLM) generates false informations



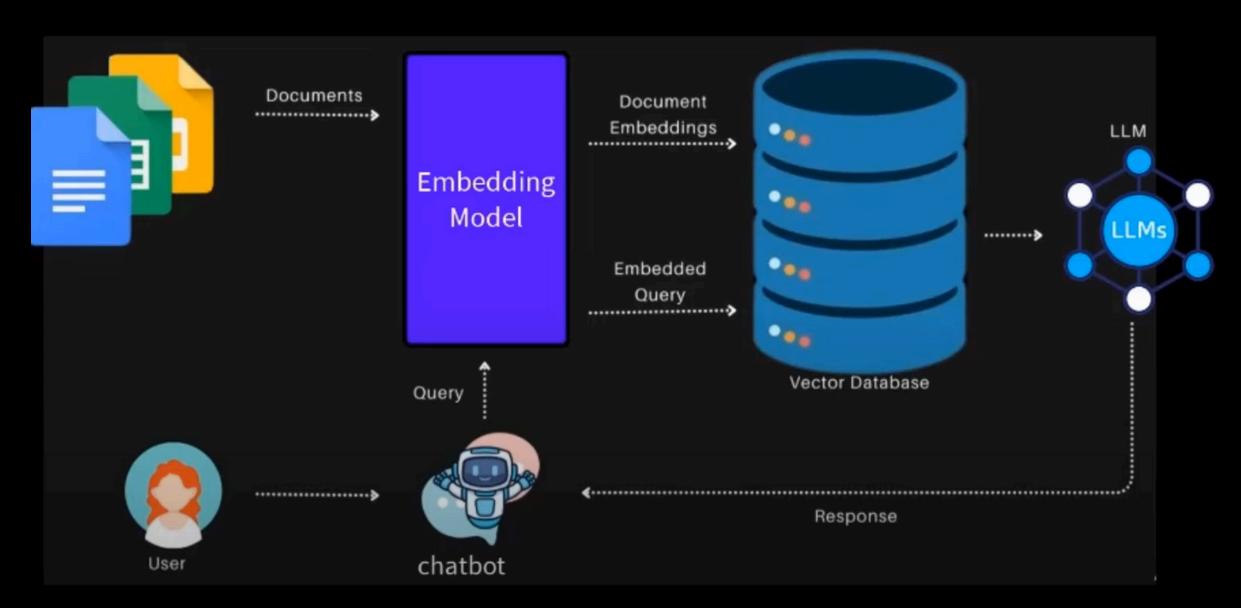
Complete Generative AI

Retrieval Augmented Generation (RAG)

Limitation of LLMs:

- LLMs can't answer correctly to private data
- LLMs can't provide the most current information

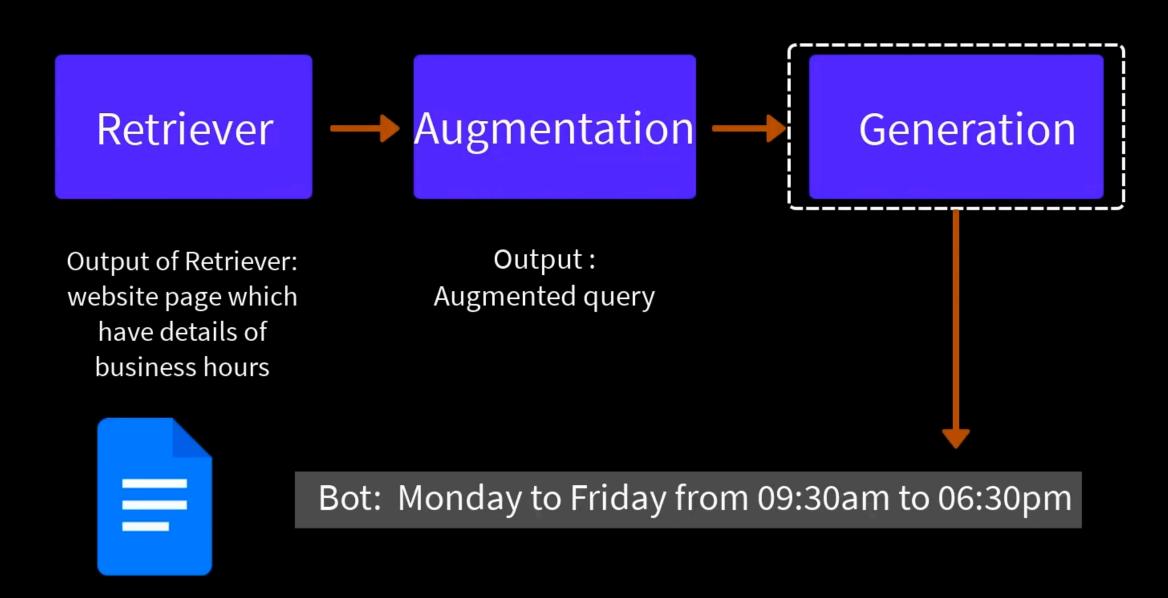
RAG allows LLMs to use external sources for better responses



RAG allows LLMs to use external sources for better responses

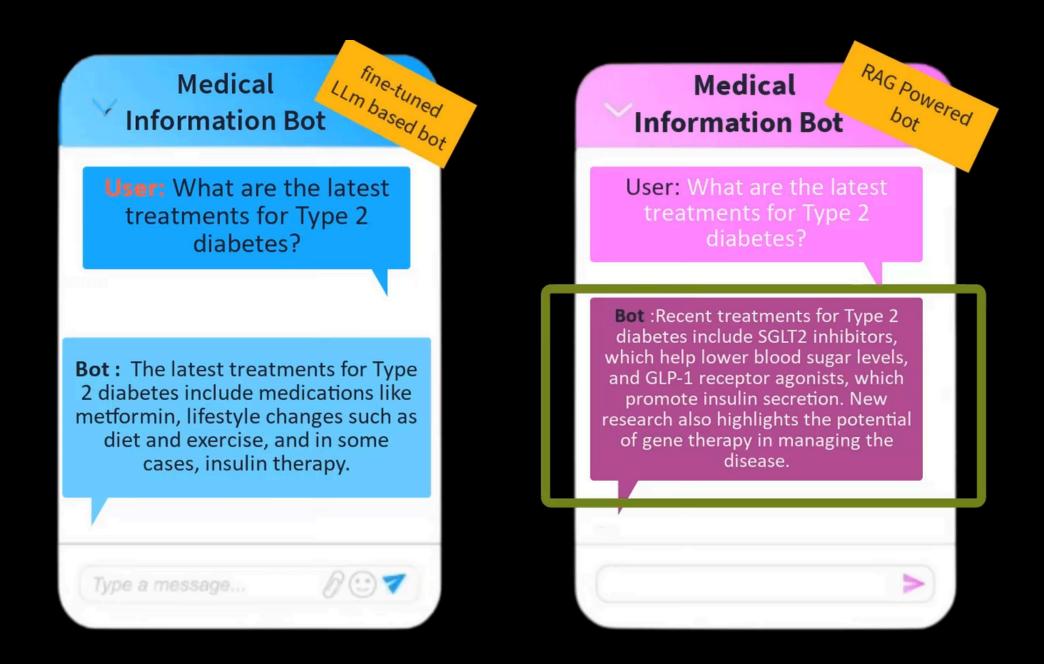
- More accurate ans on private data
- Stay updated with new information

User: What are your business hours?



RAG vs. Fine-tuning

Both extend the abilities of language models



RAG Projects

Build a Q&A App with RAG using Gemini Pro and Langchain

