

LLM Engineering

MASTER AI & LARGE LANGUAGE MODELS



A classic Gen AI week ahead

What you can already do

- Confidently use the OpenAI API including streaming with markdown and JSON generation
 - Use the Anthropic and Google APIs
 - Build UIs for your solutions
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By end of today, you'll be able to

- Create a Chat UI in Gradio
- Provide conversation history in a prompt
- Build your first customer support assistant

An AI Assistant is a very common Gen AI use case

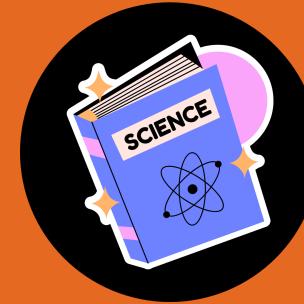
LLM based Chatbots are remarkably effective at conversation



Friendly, knowledgeable persona



Ability to maintain context between messages



Subject matter expertise to answer questions

The use of Prompts with our Assistant



The System Prompt

Set tone

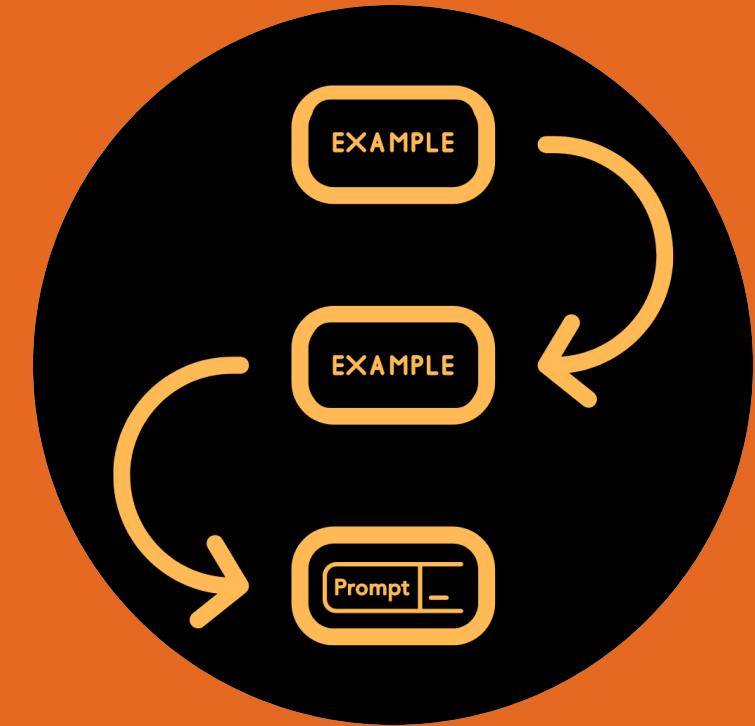
Establish ground-rules, like "If you don't know the answer, just say so"

Provide critical background context



Context

During the conversation, insert context to give more relevant background information pertaining to the topic



Multi-Shot Prompting

Provide example conversations to prime for specific scenarios, train on conversational style and demonstrate complex interactions

Your first chatbot

Chatbot

Well hi there

Hello! It's wonderful to see you. How can I assist you today?

I'd like to buy a tie

That sounds great! Do you have a particular style, color, or occasion in mind for the tie? I'd be happy to help you narrow it down!

a red one for an important presentation

A red tie is a fantastic choice for an important presentation! It conveys confidence and energy.

Would you prefer a solid red tie, or do you think a pattern, like stripes or dots, would work better? Also, are you looking for a specific material, such as silk or cotton?

Retry

Undo

Clear

Type a message...

Submit

A stylized illustration of a person walking away from the viewer on a path through a forest towards a bright sun rising over mountains. The scene is framed by a large sunburst at the top left and features rolling hills, a winding path, and tall evergreen trees.

PROGRESS

Congratulations - 20% milestone

What you can now do

- Describe transformers and explain key terminology
 - Confidently code with the APIs for GPT, Claude and Gemini
 - Build an AI Chatbot Assistant including an interactive UI
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After the next session you'll be able to

- Explain the use of Tools
- Create a Function-calling Tool
- Code an AI Assistant that incorporates Tools