2.2 Transcript

In this module we're going to look at how we can program a generative AI.

The every large language model comes with an API for integrating the module into an application. For example, and I have in this notebook here you can see I've put in links to each of these three APIs, which are the three most common large language models out there.

OpenAI is ChatGPT, which everybody knows about. And Google has Gemini API and meta has the LLama API.

It's important for these, models to provide APIs because for gen AI or for AI or for anything actually to be useful, it has to be incorporated into the business, applications that that a business has, because it has to be, you know, has to be very specific to that business itself.

So, for example, a couple of examples here. If you have a Delta Airlines customer service chatbot, then it has to be Delta specific.

If somebody says what time does flight 42 arrive?

It has to know that flight 42 refers to Delta Flight 42 and not the United or Lufthansa or something else.

And if you have a small business and you're using an AI application to manage your invoices and do your accounting for you and do all kinds of stuff there at the back end, then it has to know about the account labels that you use, like what kind of ledgers you have and the details about your accounting system, because that was going to be unique to your small business.

So for making gen AI useful in the business world at least, or actually in almost any world, you have to have an API that will let you sort of incorporate the large language model into your own application.

Keep in mind that what LLMS are really and we give this example earlier as well.

They are really well educated applications.

So they can speak English very well.

They can construct good sentences, but they may not have specific knowledge about the business or the application that you are working with.

They have general knowledge. They're very good at general knowledge.

So you always need to sort of train them to give you more specific responses to whatever you want to do with, whatever business you're running or whatever application you want to write and those, to do that, you need an API because you're going to communicate with the large language model.

You're going to tell it, hey, flight 42 arrives at 4 p.m.

So it's think of it as a database that has 42 flight number and 4 p.m. arrival time, and it has to be expressed to the user or the final customer as flight 42 will arrive at LaGuardia airport at 4:10 p.m.

Right, in English. So that's what the the large language model can do for you.

There are many examples of AI applications already in use, and I've listed some of them over here.

You can see that the customer service chatbots are probably the easiest, because what you need to do is you need to give your procedures or, rules or regulations or whatever else you have and put it into an AI system, and then use the AI's natural language capabilities to extract information from your data and present it to the user.

How do I return my product? You know, that kind of stuff. Let's say you have to return to return the product.

You have to send in the request within seven days we'll send you a return label.

You print it out, attach it to your box, blah, blah. You know, that kind of stuff. Discovering new proteins.

So this is actually a very interesting application that is next to an article that tells you how scientists and in fact, a Nobel Prize winning scientist has used AI to find new proteins.

And what the scientists says is that the AI comes out with proteins that humans would not have come up with.

It's the kind of very novel and in the way they structure them.

So you can think of AI because of all the knowledge it's collected from everywhere, in every discipline, as doing things that we, who tend to be more specialized in our activities cannot do.

You know, in a sense. So it's, it's a very interesting application. You should definitely read that article diagnosing systems.

And I think there are a bunch of articles that I read that say that, sometimes an AI system actually is better at diagnosis than the doctor and that can happen.

Right? Because the AI, again, if you go to, an orthopedic specialist, for example, the specialist may not know as much about, I don't know, coronary heart disease or cancer or something else.

And but I know something about all of them. So it can sort of look across the spectrum and give you a diagnosis.

Accessibility, learning history. I've listed a whole bunch here.

You can take a look at them and whatever interests you.

It's well worth looking at because there are many different ways in which you can use AI.