

Artificial Intelligence (AI) is transforming the way humans interact with technology. One of the most significant advancements in AI is **ChatGPT**, a language model capable of understanding and generating human-like text.

## How ChatGPT Works

ChatGPT is powered by a deep learning model called a **transformer**. It is trained on vast amounts of text data to generate meaningful responses based on user input. The model can be fine-tuned for specific tasks, including answering questions from a set of documents.

## Using PDFs for Question-Answering

ChatGPT can retrieve information from PDFs by following these steps:

1. **Extract Text** – The content of PDFs is processed and converted into searchable text.
2. **Create Embeddings** – Each passage from the PDFs is converted into numerical vectors for efficient searching.
3. **Similarity Search** – When a user asks a question, the system finds the most relevant text snippets from the PDFs.
4. **Generate Answer** – The extracted text is provided to ChatGPT, which formulates a response based on it.