

```
pip install torch transformers langchain
```

```
Requirement already satisfied: typing-extensions>=4.10.0 in /usr/local/lib/python3.12/site-packages (4.10.0)
Requirement already satisfied: setuptools in /usr/local/lib/python3.12/site-packages (68.0.0)
Requirement already satisfied: sympy>=1.13.3 in /usr/local/lib/python3.12/site-packages (1.13.3)
Requirement already satisfied: networkx in /usr/local/lib/python3.12/site-packages (3.3)
Requirement already satisfied: jinja2 in /usr/local/lib/python3.12/site-packages (3.1.3)
Requirement already satisfied: fsspec in /usr/local/lib/python3.12/site-packages (2024.10.0)
Requirement already satisfied: nvidia-cuda-nvrtc-cu12==12.6.77 in /usr/local/lib/python3.12/site-packages (12.6.77)
Requirement already satisfied: nvidia-cuda-runtime-cu12==12.6.77 in /usr/local/lib/python3.12/site-packages (12.6.77)
Requirement already satisfied: nvidia-cuda-cupti-cu12==12.6.80 in /usr/local/lib/python3.12/site-packages (12.6.80)
Requirement already satisfied: nvidia-cudnn-cu12==9.10.2.21 in /usr/local/lib/python3.12/site-packages (9.10.2.21)
Requirement already satisfied: nvidia-cublas-cu12==12.6.4.1 in /usr/local/lib/python3.12/site-packages (12.6.4.1)
Requirement already satisfied: nvidia-cufft-cu12==11.3.0.4 in /usr/local/lib/python3.12/site-packages (11.3.0.4)
Requirement already satisfied: nvidia-curand-cu12==10.3.7.77 in /usr/local/lib/python3.12/site-packages (10.3.7.77)
Requirement already satisfied: nvidia-cusolver-cu12==11.7.1.2 in /usr/local/lib/python3.12/site-packages (11.7.1.2)
Requirement already satisfied: nvidia-cusparse-cu12==12.5.4.2 in /usr/local/lib/python3.12/site-packages (12.5.4.2)
Requirement already satisfied: nvidia-cusparselt-cu12==0.7.1 in /usr/local/lib/python3.12/site-packages (0.7.1)
Requirement already satisfied: nvidia-nccl-cu12==2.27.3 in /usr/local/lib/python3.12/site-packages (2.27.3)
Requirement already satisfied: nvidia-nvtx-cu12==12.6.77 in /usr/local/lib/python3.12/site-packages (12.6.77)
Requirement already satisfied: nvidia-nvjitlink-cu12==12.6.85 in /usr/local/lib/python3.12/site-packages (12.6.85)
Requirement already satisfied: nvidia-cufile-cu12==1.11.1.6 in /usr/local/lib/python3.12/site-packages (1.11.1.6)
Requirement already satisfied: triton==3.4.0 in /usr/local/lib/python3.12/site-packages (3.4.0)
Requirement already satisfied: huggingface-hub<1.0,>=0.34.0 in /usr/local/lib/python3.12/site-packages (0.34.0)
Requirement already satisfied: numpy>=1.17 in /usr/local/lib/python3.12/site-packages (1.26.4)
Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.12/site-packages (24.1)
Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.12/site-packages (6.0.2)
Requirement already satisfied: regex!=2019.12.17 in /usr/local/lib/python3.12/site-packages (2024.11.6)
Requirement already satisfied: requests in /usr/local/lib/python3.12/site-packages (2.32.3)
Requirement already satisfied: tokenizers<=0.23.0,>=0.22.0 in /usr/local/lib/python3.12/site-packages (0.23.0)
Requirement already satisfied: safetensors>=0.4.3 in /usr/local/lib/python3.12/site-packages (0.5.2)
Requirement already satisfied: tqdm>=4.27 in /usr/local/lib/python3.12/site-packages (4.67.1)
Requirement already satisfied: langchain-core<1.0.0,>=0.3.72 in /usr/local/lib/python3.12/site-packages (0.3.72)
Requirement already satisfied: langchain-text-splitters<1.0.0,>=0.3.9 in /usr/local/lib/python3.12/site-packages (0.3.9)
Requirement already satisfied: langsmith>=0.1.17 in /usr/local/lib/python3.12/site-packages (0.1.17)
Requirement already satisfied: pydantic<3.0.0,>=2.7.4 in /usr/local/lib/python3.12/site-packages (2.10.6)
Requirement already satisfied: SQLAlchemy<3,>=1.4 in /usr/local/lib/python3.12/site-packages (2.0.36)
Requirement already satisfied: hf-xet<2.0.0,>=1.1.3 in /usr/local/lib/python3.12/site-packages (1.1.3)
Requirement already satisfied: tenacity!=8.4.0,<10.0.0,>=8.1.0 in /usr/local/lib/python3.12/site-packages (9.0.0)
Requirement already satisfied: jsonpatch<2.0.0,>=1.33.0 in /usr/local/lib/python3.12/site-packages (1.33.0)
Requirement already satisfied: httpx<1,>=0.23.0 in /usr/local/lib/python3.12/site-packages (0.23.0)
Requirement already satisfied: orjson>=3.9.14 in /usr/local/lib/python3.12/site-packages (3.10.15)
Requirement already satisfied: requests-toolbelt>=1.0.0 in /usr/local/lib/python3.12/site-packages (1.0.0)
Requirement already satisfied: zstandard>=0.23.0 in /usr/local/lib/python3.12/site-packages (0.23.0)
Requirement already satisfied: annotated-types>=0.6.0 in /usr/local/lib/python3.12/site-packages (0.6.0)
Requirement already satisfied: pydantic-core==2.33.2 in /usr/local/lib/python3.12/site-packages (2.33.2)
Requirement already satisfied: typing-inspection>=0.4.0 in /usr/local/lib/python3.12/site-packages (0.4.0)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.12/site-packages (3.4.0)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.12/site-packages (3.10)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.12/site-packages (2.3.0)
```

Requirement already satisfied: anyio in /usr/local/lib/python3.12/dist-packages  
Requirement already satisfied: httpcore==1.\* in /usr/local/lib/python3.12/dist-packages  
Requirement already satisfied: h11>=0.16 in /usr/local/lib/python3.12/dist-packages  
Requirement already satisfied: jsonpointer>=1.9 in /usr/local/lib/python3.12/dist-packages  
Requirement already satisfied: sniffio>=1.1 in /usr/local/lib/python3.12/dist-packages

```
from transformers import AutoModelForCausalLM, AutoTokenizer, pipeline
from langchain_community.llms import HuggingFacePipeline
from langchain.prompts import PromptTemplate
```

```
-----
---
ModuleNotFoundError                                Traceback (most recent call
last)
/tmp/ipython-input-2111519355.py in <cell line: 0>()
      1 from transformers import AutoModelForCausalLM, AutoTokenizer,
pipeline
----> 2 from langchain_community.llms import HuggingFacePipeline
      3 from langchain.prompts import PromptTemplate
```

**ModuleNotFoundError:** No module named 'langchain\_community'

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NOTE: If your import is failing due to a missing package, you can manually install dependencies using either `!pip` or `!apt`.

To view examples of installing some common dependencies, click the "Open Examples" button below.

OPEN EXAMPLES

Next steps: [Explain error](#)

```
model_name = "gpt2" # You can use "distilgpt2" for smaller model
tokenizer = AutoTokenizer.from_pretrained(model_name)
model = AutoModelForCausalLM.from_pretrained(model_name)
```

```
pipe = pipeline(
    "text-generation",
    model=model,
    tokenizer=tokenizer,
    max_length=100,
    temperature=0.7,
    top_k=50
)
```

```
local_llm = HuggingFacePipeline(pipeline=pipe)
```

```
/tmp/ipython-input-2498521206.py:1: LangChainDeprecationWarning: The class
local_llm = HuggingFacePipeline(pipeline=pipe)
```

```
prompt = PromptTemplate(
    input_variables=["topic"],
    template="Write a short informative paragraph about {topic} in a friendly
")
```

```
final_prompt = prompt.format(topic="Artificial Intelligence in Retail")
response = local_llm(final_prompt)
print(response)
```

```
/tmp/ipython-input-1541145833.py:2: LangChainDeprecationWarning: The meth
response = local_llm(final_prompt)
Setting `pad_token_id` to `eos_token_id`:50256 for open-end generation.
Write a short informative paragraph about Artificial Intelligence in Reta

Read another blog post on Artificial Intelligence in Retail.

Read another blog post on Artificial Intelligence in Retail. Get a few qu
```

