

```
pip install transformers torch
```

```

24.6/24.6 MB 86.5 MB/s eta 0:00:00
Downloading nvidia_cuda_runtime_cu12-12.4.127-py3-none-manylinux2014_x86_64.whl (883 kB)
883.7/883.7 kB 51.0 MB/s eta 0:00:00
Downloading nvidia_cudnn_cu12-9.1.0.70-py3-none-manylinux2014_x86_64.whl (664.8 MB)
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Downloading nvidia_cufft_cu12-11.2.1.3-py3-none-manylinux2014_x86_64.whl (211.5 MB)
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127.9/127.9 MB 7.4 MB/s eta 0:00:00
Downloading nvidia_cusparses_cu12-12.3.1.170-py3-none-manylinux2014_x86_64.whl (207.5 MB)
207.5/207.5 MB 5.9 MB/s eta 0:00:00
Downloading nvidia_nvjitlink_cu12-12.4.127-py3-none-manylinux2014_x86_64.whl (21.1 MB)
21.1/21.1 MB 53.6 MB/s eta 0:00:00
Installing collected packages: nvidia-nvjitlink-cu12, nvidia-curand-cu12, nvidia-cufft-cu12, nvidia-cuda-runtime-cu12, nvidia-cud
Attempting uninstall: nvidia-nvjitlink-cu12
Found existing installation: nvidia-nvjitlink-cu12 12.5.82
Uninstalling nvidia-nvjitlink-cu12-12.5.82:
Successfully uninstalled nvidia-nvjitlink-cu12-12.5.82
Attempting uninstall: nvidia-curand-cu12
Found existing installation: nvidia-curand-cu12 10.3.6.82
Uninstalling nvidia-curand-cu12-10.3.6.82:
Successfully uninstalled nvidia-curand-cu12-10.3.6.82
Attempting uninstall: nvidia-cufft-cu12
Found existing installation: nvidia-cufft-cu12 11.2.3.61
Uninstalling nvidia-cufft-cu12-11.2.3.61:
Successfully uninstalled nvidia-cufft-cu12-11.2.3.61
Attempting uninstall: nvidia-cuda-runtime-cu12
Found existing installation: nvidia-cuda-runtime-cu12 12.5.82
Uninstalling nvidia-cuda-runtime-cu12-12.5.82:
Successfully uninstalled nvidia-cuda-runtime-cu12-12.5.82
Attempting uninstall: nvidia-cuda-nvrtc-cu12
Found existing installation: nvidia-cuda-nvrtc-cu12 12.5.82
Uninstalling nvidia-cuda-nvrtc-cu12-12.5.82:
Successfully uninstalled nvidia-cuda-nvrtc-cu12-12.5.82
Attempting uninstall: nvidia-cuda-cupti-cu12
Found existing installation: nvidia-cuda-cupti-cu12 12.5.82
Uninstalling nvidia-cuda-cupti-cu12-12.5.82:
Successfully uninstalled nvidia-cuda-cupti-cu12-12.5.82
Attempting uninstall: nvidia-cublas-cu12
Found existing installation: nvidia-cublas-cu12 12.5.3.2
Uninstalling nvidia-cublas-cu12-12.5.3.2:
Successfully uninstalled nvidia-cublas-cu12-12.5.3.2
Attempting uninstall: nvidia-cusparses-cu12
Found existing installation: nvidia-cusparses-cu12 12.5.1.3
Uninstalling nvidia-cusparses-cu12-12.5.1.3:
Successfully uninstalled nvidia-cusparses-cu12-12.5.1.3
Attempting uninstall: nvidia-cudnn-cu12
Found existing installation: nvidia-cudnn-cu12 9.3.0.75
Uninstalling nvidia-cudnn-cu12-9.3.0.75:
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Attempting uninstall: nvidia-cusolver-cu12
Found existing installation: nvidia-cusolver-cu12 11.6.3.83
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Successfully installed nvidia-cublas-cu12-12.4.5.8 nvidia-cuda-cupti-cu12-12.4.127 nvidia-cuda-nvrtc-cu12-12.4.127 nvidia-cuda-ru

```

✓ Default Sentiment Analysis

```

from transformers import pipeline
classifier = pipeline(task="sentiment-analysis")
result = classifier("Hate this")
print(result)

```

No model was supplied, defaulted to distilbert/distilbert-base-uncased-finetuned-sst-2-english and revision 714eb0f (<https://huggingface.co/distilbert/distilbert-base-uncased-finetuned-sst-2-english>)
Using a pipeline without specifying a model name and revision in production is not recommended.

```

config.json: 100% 629/629 [00:00<00:00, 12.2kB/s]
model.safetensors: 100% 268M/268M [00:04<00:00, 75.1MB/s]
tokenizer_config.json: 100% 48.0/48.0 [00:00<00:00, 1.28kB/s]
vocab.txt: 100% 232k/232k [00:00<00:00, 3.36MB/s]
Device set to use cpu
[{'label': 'NEGATIVE', 'score': 0.9997244477720341}]

```

✓ Sentiment Analysis and Text Classification using specific models

```
classifier = pipeline(task = "sentiment-analysis", model = "SamLowe/roberta-base-go_emotions", top_k = None)
classifier("Thanks for nothing")
```



Device set to use cpu

```
[[{'label': 'gratitude', 'score': 0.97365802526474},
 {'label': 'neutral', 'score': 0.019856013357639313},
 {'label': 'annoyance', 'score': 0.016787173226475716},
 {'label': 'disapproval', 'score': 0.009506452828645706},
 {'label': 'realization', 'score': 0.008019838482141495},
 {'label': 'approval', 'score': 0.0076944888569414616},
 {'label': 'disappointment', 'score': 0.004487436730414629},
 {'label': 'sadness', 'score': 0.003128961194306612},
 {'label': 'confusion', 'score': 0.002745995996519923},
 {'label': 'anger', 'score': 0.002674729097634554},
 {'label': 'optimism', 'score': 0.002567069372162223},
 {'label': 'remorse', 'score': 0.002561789471656084},
 {'label': 'joy', 'score': 0.002148170256987214},
 {'label': 'disgust', 'score': 0.0021237549372017384},
 {'label': 'relief', 'score': 0.0020683836191892624},
 {'label': 'admiration', 'score': 0.0017460754606872797},
 {'label': 'surprise', 'score': 0.001724381116218865},
 {'label': 'caring', 'score': 0.0014999490231275558},
 {'label': 'amusement', 'score': 0.0014847194543108344},
 {'label': 'excitement', 'score': 0.001469582086429},
 {'label': 'embarrassment', 'score': 0.0013398922747001052},
 {'label': 'curiosity', 'score': 0.0011303697247058153},
 {'label': 'desire', 'score': 0.0008471838664263487},
 {'label': 'love', 'score': 0.0007699783891439438},
 {'label': 'fear', 'score': 0.0005106464959681034},
 {'label': 'grief', 'score': 0.00044882448855787516},
 {'label': 'pride', 'score': 0.0004322695604059845},
 {'label': 'nervousness', 'score': 0.00021646787354256958}]]
```

```
classifier = pipeline(task = "text-classification", model = "SamLowe/roberta-base-go_emotions", top_k = None)
classifier("Thanks for nothing")
```



model.safetensors: 100%	499M/499M [00:11<00:00, 25.9MB/s]
tokenizer_config.json: 100%	380/380 [00:00<00:00, 27.9kB/s]
vocab.json: 100%	798k/798k [00:00<00:00, 31.6MB/s]
merges.txt: 100%	456k/456k [00:00<00:00, 27.5MB/s]
tokenizer.json: 100%	2.11M/2.11M [00:00<00:00, 44.5MB/s]
special_tokens_map.json: 100%	280/280 [00:00<00:00, 22.2kB/s]

Device set to use cpu

```
[[{'label': 'gratitude', 'score': 0.97365802526474},
 {'label': 'neutral', 'score': 0.019856013357639313},
 {'label': 'annoyance', 'score': 0.016787173226475716},
 {'label': 'disapproval', 'score': 0.009506452828645706},
 {'label': 'realization', 'score': 0.008019838482141495},
 {'label': 'approval', 'score': 0.0076944888569414616},
 {'label': 'disappointment', 'score': 0.004487436730414629},
 {'label': 'sadness', 'score': 0.003128961194306612},
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 {'label': 'disgust', 'score': 0.0021237549372017384},
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 {'label': 'pride', 'score': 0.0004322695604059845},
 {'label': 'nervousness', 'score': 0.00021646787354256958}]]
```

✓ Text Summarization using Another Model

```
summarizer = pipeline(task = "summarization", model = "facebook/bart-large-cnn")
text = "The rapid advancement of artificial intelligence has transformed industries worldwide, from healthcare to finance. AI-powered tr
```

```

config.json: 100% 1.58k/1.58k [00:00<00:00, 87.5kB/s]
model.safetensors: 100% 1.63G/1.63G [00:41<00:00, 121MB/s]
generation_config.json: 100% 363/363 [00:00<00:00, 30.0kB/s]
vocab.json: 100% 899k/899k [00:00<00:00, 27.4MB/s]
merges.txt: 100% 456k/456k [00:00<00:00, 31.1MB/s]
tokenizer.json: 100% 1.36M/1.36M [00:00<00:00, 24.5MB/s]
Device set to use cpu

summarized_text = summarizer(text, min_length = 5, max_length = 140)[0]['summary_text']
summarized_text

Your max_length is set to 140, but your input_length is only 94. Since this is a summarization task, where outputs shorter than the
'The rapid advancement of artificial intelligence has transformed industries worldwide. But ethical concerns, such as data privacy
and job displacement, remain significant challenges. Despite these hurdles, experts agree that AI's potential benefits outweigh its
risks.'
```

Chatbot

```
chatbot = pipeline(model = "facebook/blenderbot-400M-distill")
```

```

config.json: 100% 1.57k/1.57k [00:00<00:00, 119kB/s]
pytorch_model.bin: 100% 730M/730M [00:16<00:00, 75.4MB/s]
model.safetensors: 8% 58.8M/730M [00:05<00:55, 12.1MB/s]
generation_config.json: 100% 347/347 [00:00<00:00, 5.41kB/s]
tokenizer_config.json: 100% 1.15k/1.15k [00:00<00:00, 21.2kB/s]
vocab.json: 100% 127k/127k [00:00<00:00, 1.29MB/s]
merges.txt: 100% 62.9k/62.9k [00:00<00:00, 1.11MB/s]
added_tokens.json: 100% 16.0/16.0 [00:00<00:00, 163B/s]
special_tokens_map.json: 100% 772/772 [00:00<00:00, 13.2kB/s]
tokenizer.json: 100% 310k/310k [00:00<00:00, 4.73MB/s]
Device set to use cpu
```

```

user_input = "Hi I'm Rithul. Who are you and how are you doing?"
response = chatbot(user_input)
print(response)
```

```
['generated_text': " Hi Rith, I'm mia. I'm doing well. How are you? "]]
```

Start coding or [generate](#) with AI.