



**The AI community
building the future**



NEW AI Tools are now available in HuggingChat



The AI community building the future.

The platform where the machine learning community collaborates on models, datasets, and applications.

Tasks Libraries Datasets Languages Licenses Other

Filter Tasks by name

Multimodal

- Text-to-Image Image-to-Text
- Text-to-Video Visual Question Answering
- Document Question Answering Graph Machine Learning

Computer Vision

- Depth Estimation Image Classification
- Object Detection Image Segmentation
- Image-to-Image Unconditional Image Generation
- Video Classification Zero-Shot Image Classification

Natural Language Processing

- Text Classification Token Classification
- Table Question Answering Question Answering
- Zero-Shot Classification Translation
- Summarization Conversational
- Text Generation Text2Text Generation
- Sentence Similarity

Audio

- Text-to-Speech Automatic Speech Recognition
- Audio-to-Audio Audio Classification
- Voice Activity Detection

Tabular

- Tabular Classification Tabular Regression

Reinforcement Learning

- Reinforcement Learning Robotics

Models 469,541 Filter by name

meta-llama/Llama-2-70b
Text Generation • Updated 4 days ago • \pm 25.2k • \heartsuit 64

stabilityai/stable-diffusion-xl-base-0.9
Updated 6 days ago • \pm 2.01k • \heartsuit 393

openchat/openchat
Text Generation • Updated 2 days ago • \pm 1.3k • \heartsuit 136

llyasviel/ControlNet-v1-1
Updated Apr 26 • \heartsuit 1.87k

cerspense/zeroscope_v2_XL
Updated 3 days ago • \pm 2.66k • \heartsuit 334

meta-llama/Llama-2-13b
Text Generation • Updated 4 days ago • \pm 328 • \heartsuit 64

tiiuae/falcon-40b-instruct
Text Generation • Updated 27 days ago • \pm 288k • \heartsuit 899

WizardLM/WizardCoder-15B-V1.0
Text Generation • Updated 3 days ago • \pm 12.5k • \heartsuit 332

CompVis/stable-diffusion-v1-4
Text-to-Image • Updated about 17 hours ago • \pm 448k • \heartsuit 5.72k

stabilityai/stable-diffusion-2-1
Text-to-Image • Updated about 17 hours ago • \pm 782k • \heartsuit 2.81k

Salesforce/xgen-7b-8k-inst
Text Generation • Updated 4 days ago • \pm 6.18k • \heartsuit 57

Hugging Face

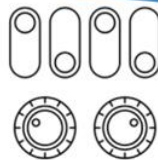
Transformers library

Use it with



Use it for

Applying state of the art
transformer models



Fine-tuning pretrained
transformer models

Tasks

Pipelines



Initialization

Task

Model
Checkpoint

Use

Inputs for
the task

Sentiment Analysis

Sequence

Question Answering

Context and
questions

Fill-Mask

Sentence and
position

Hugging Face: Using Transformers

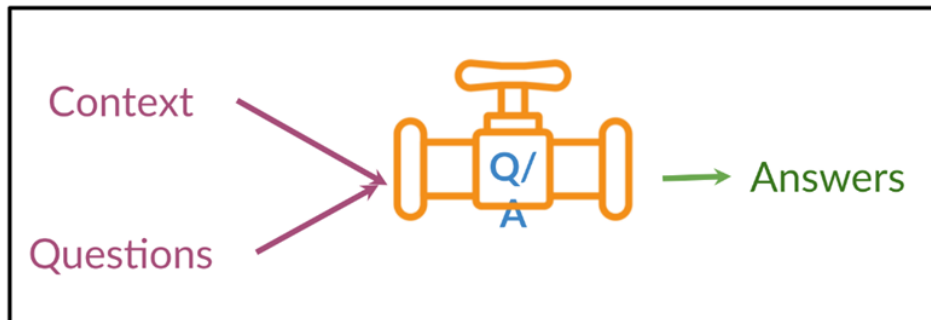
Pipelines



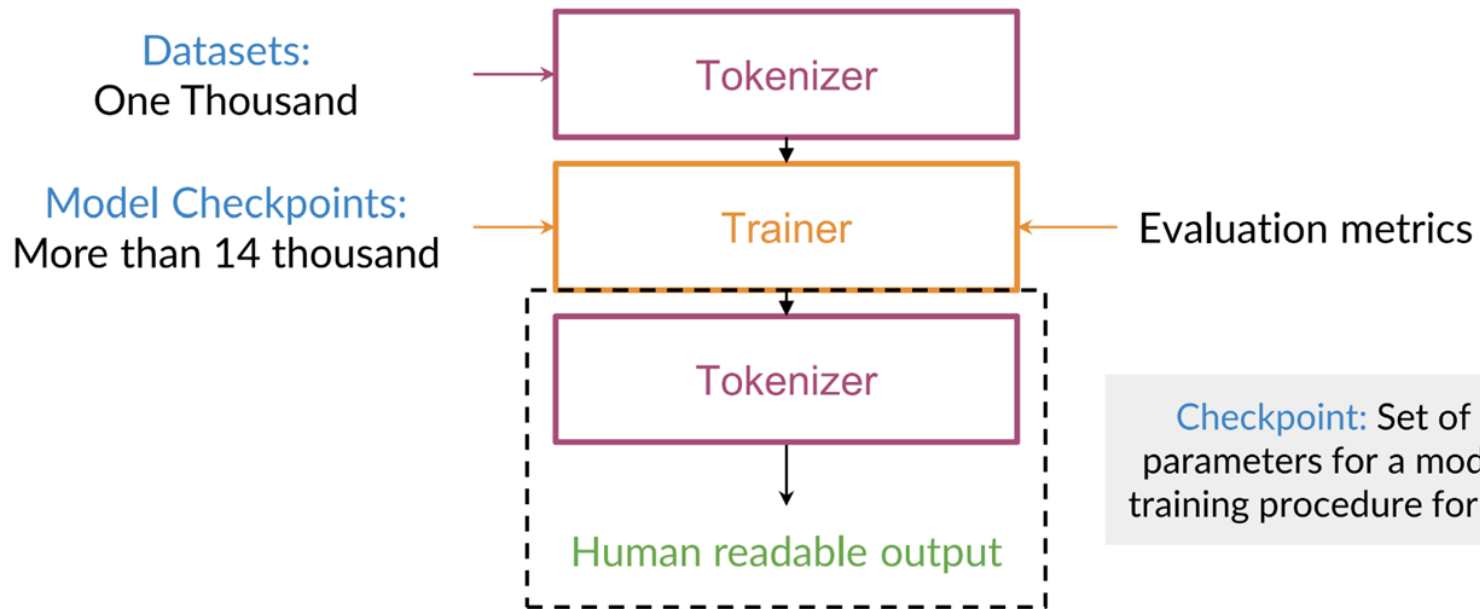
1. Pre-processing your inputs

2. Running the model

3. Post-processing the outputs



Hugging Face: Fine-Tuning Transformers



Checkpoint: Set of learned parameters for a model using a training procedure for some task

Checkpoints



Huge number of model checkpoints that you can use in your pipelines.

But **beware**, not every checkpoint would be suitable for your task.

Model Checkpoints

Model Checkpoints:

More than 15 thousand
(and increasing)

Upload the architecture
and weights with 1 line
of code!

Model	Dataset	Name in 🤗
DistilBERT	Stanford Question Answering Dataset (SQuAD)	distilbert-base-cased-distilled-squad
BERT	Wikipedia and Book Corpus	bert-base-cased
...

Model Card and Datasets

Tasks **Libraries** Datasets Languages Licenses Other

Filter Libraries by name

PyTorch TensorFlow JAX Transformers

TensorBoard Diffusers Safetensors

Stable-Baselines3 PEFT ONNX ML-Agents

Sentence Transformers Flair Timm Sample Factory

Keras Adapter Transformers spaCy ESPnet

Transformers.js fastai Core ML NeMo

Rust Joblib Scikit-learn fastText speechbrain

PaddlePaddle OpenCLIP BERTopic Fairseq

OpenVINO Graphcore TF Lite Stanza Asteroid

PaddleNLP allenNLP SpanMarker Habana Pythae

pyannote.audio

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Audio Classification Voice Activity Detection

Tabular

Tabular Classification Tabular Regression

Reinforcement Learning

Reinforcement Learning Robotics

Tasks Libraries **Datasets** Languages Licenses Other

Filter Datasets by name

glue squad mozilla-foundation/common_voice_7_0

imdb imagenet-1k wikipedia xtreme

common_voice mozilla-foundation/common_voice_11_0

conll2003 bookcorpus marsyas/gtzan samsum

squad_v2 fka/awesome-chatgpt-prompts clinc_oos

c4 Open-Orca/OpenOrca super_glue

cnn_dailymail OpenAssistant/oasst1

facebook/voxpopuli librispeech_asr

huggan/smithsonian_butterflies_subset billsum

PolyAI/minds14 beans universal_dependencies

oscar google/fleurs garage-bAInd/Open-Platypus

wmt16 mozilla-foundation/common_voice_8_0

tweet_eval databricks/databricks-dolly-15k mc4

ehartford/dolphin mozilla-foundation/common_voice_13_0

kde4 amazon_reviews_multi tatsu-lab/alpaca

togethercomputer/RedPajama-Data-1T sst2 cc100

tiuae/falcon-refinedweb multi_nli wnut_17

klue relbert/semEval2012_relational_similarity

jondurbin/aioboros-3.1 jondurbin/aioboros-2.2.1

food101 superb snli opus_books

scene_parse_150 ehartford/wizard_vicuna_70k_unfiltered

gsm8k bigcode/starcoderdata xnli eli5

wikiann financial_phrasebank Anthropic/hh-rlhf

cerebras/SlimPajama-627B cifar10 esb/datasets




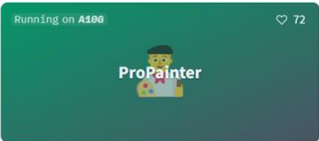



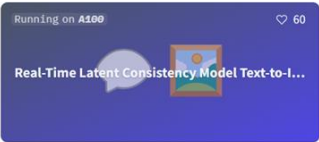
cppe-5

Hugging Spaces








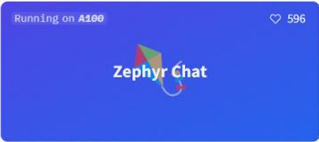
Discover amazing ML apps made by the community!

[Create new Space](#)

☆ Spaces of the week 🔥

 <p>Face Recognition SDK</p> <p>FaceOnLive 2 days ago 215</p>	 <p>ID Document Recognition SDK</p> <p>FaceOnLive 2 days ago 170</p>	 <p>Distil Whisper Web</p> <p>Xenova 7 days ago 70</p>	 <p>ProPainter</p> <p>Running on A100 2 days ago 72</p>
 <p>Chat with DeepSeek Coders 33B</p> <p>deepseek-ai 6 days ago 70</p>	 <p>Chat with DeepSeek Coders 7B</p> <p>deepseek-ai 4 days ago 35</p>	 <p>Whisper vs Distil-Whisper</p> <p>distil-whisper 4 days ago 38</p>	 <p>Real-Time Latent Consistency Model Text-to-Image</p> <p>radames 2 days ago 60</p>

All running apps, trending first

 <p>OpenAI TTS New</p> <p>yshazma 2 days ago 360</p>	 <p>Face Recognition SDK</p> <p>FaceOnLive 2 days ago 215</p>	 <p>ID Document Recognition SDK</p> <p>FaceOnLive 2 days ago 170</p>	 <p>Open LLM Leaderboard</p> <p>HuggingFaceH4 about 19 hours ago 6.08k</p>
 <p>Face Liveness Detection SDK</p> <p>FaceOnLive 2 days ago 154</p>	 <p>AI Comic Factory</p> <p>jblilcke-hf 2 days ago 2.8k</p>	 <p>Fast Stable Diffusion</p> <p>prodia 16 days ago 541</p>	 <p>Zephyr Chat</p> <p>Running on A100 14 days ago 596</p>

Hugging Spaces APIs

Pipelines for inference

The `pipeline()` makes it simple to use any model from the [Hub](#) for inference on any language, computer vision, speech, and multimodal tasks. Even if you don't have experience with a specific modality or aren't familiar with the underlying code behind the models, you can still use them for inference with the `pipeline()`! This tutorial will teach you to:

- Use a `pipeline()` for inference.
- Use a specific tokenizer or model.
- Use a `pipeline()` for audio, vision, and multimodal tasks.

```
from transformers import pipeline

transcriber = pipeline(task="automatic-speech-recognition")

transcriber("https://huggingface.co/datasets/Narsil/asr_dummy/resolve/main/mlk.flac")
```

Output:

```
{'text': 'I HAVE A DREAM BUT ONE DAY THIS NATION WILL RISE UP LIVE UP THE TRUE MEANING OF ITS TREES'}
```

Load pretrained instances with an AutoClass

With so many different Transformer architectures, it can be challenging to create one for your checkpoint. As a part of 🤗 Transformers core philosophy to make the library easy, simple and flexible to use, an AutoClass automatically infers and loads the correct architecture from a given checkpoint. The `from_pretrained()` method lets you quickly load a pretrained model for any architecture so you don't have to devote time and resources to train a model from scratch. Producing this type of checkpoint-agnostic code means if your code works for one checkpoint, it will work with another checkpoint - as long as it was trained for a similar task - even if the architecture is different.

Load pretrained instances with an AutoClass

AutoTokenizer

AutoImageProcessor

AutoFeatureExtractor

AutoProcessor

AutoModel

```
from transformers import AutoTokenizer
tokenizer = AutoTokenizer.from_pretrained("bert-base-uncased")
```

```
sequence = "In a hole in the ground there lived a hobbit."
print(tokenizer(sequence))
```

Output:

```
{'input_ids': [101, 1999, 1037, 4920, 1999, 1996, 2598, 2045, 2973, 1037, 7570, 10322, 4183, 1012, 102],
'token_type_ids': [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
'attention_mask': [1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1]}
```

```
from transformers import AutoImageProcessor

image_processor = AutoImageProcessor.from_pretrained("google/vit-base-patch16-224")
```

```
from transformers import AutoFeatureExtractor

feature_extractor = AutoFeatureExtractor.from_pretrained(
    ...     "ehcalabres/wav2vec2-lg-xlsr-en-speech-emotion-recognition")
```

```
from transformers import AutoProcessor

processor = AutoProcessor.from_pretrained("microsoft/layoutlmv2-base-uncased")
```

```
from transformers import AutoModelForSequenceClassification

model = AutoModelForSequenceClassification.from_pretrained("distilbert-base-uncased")
```

```
from transformers import AutoModelForTokenClassification

model = AutoModelForTokenClassification.from_pretrained("distilbert-base-uncased")
```