

Hugging Face is a hub for state-of-the-art AI models. It's primarily known for its wide range of open-source transformer-based models that excel in natural language processing (NLP), computer vision, and audio tasks. The platform offers several resources and services that cater to developers, researchers, businesses, and anyone interested in exploring AI models for their own use cases.

There's a lot you can do with Hugging Face, but the primary offerings can be broken down into a few categories:

- **Models:** Hugging Face hosts a vast repository of pretrained AI models that are readily accessible and highly customizable. This repository is called the Model Hub, and it hosts models covering a wide range of tasks, including text classification, text generation, translation, summarization, speech recognition, image classification, and more. The platform is community-driven and allows users to contribute their own models, which facilitates a diverse and ever-growing selection.
- **Datasets:** Hugging Face has a library of thousands of datasets that you can use to train, benchmark, and enhance your models. These range from small-scale benchmarks to massive, real-world datasets that encompass a variety of domains, such as text, image, and audio data. Like the Model Hub, 🧑🏻‍🔬 Datasets supports community contributions and provides the tools you need to search, download, and use data in your machine learning projects.
- **Spaces:** Spaces allows you to deploy and share machine learning applications directly on the Hugging Face website. This service supports a variety of frameworks and interfaces, including Streamlit, Gradio, and Jupyter notebooks. It is particularly useful for showcasing model capabilities, hosting interactive demos, or for educational purposes, as it allows you to interact with models in real time.
- **Paid offerings:** Hugging Face also offers several paid services for enterprises and advanced users. These include the Pro Account, the Enterprise Hub, and Inference Endpoints. These solutions offer private model hosting, advanced collaboration tools, and dedicated support to help organizations scale their AI operations effectively.

These resources empower you to accelerate your AI projects and encourage collaboration and innovation within the community. Whether you're a novice looking to experiment with pretrained models, or an enterprise seeking robust AI solutions, Hugging Face offers tools and platforms that cater to a wide range of needs.

This tutorial focuses on Transformers, a Python library that lets you run just about any model in the Model Hub. Before using transformers, you'll need to understand what model cards are, and that's what you'll do next.