

# Huggingface

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Hugging Face is a leading AI platform and community that provides open-source tools, models, and datasets for machine learning, making advanced AI accessible for building, training, and deploying models, especially in Natural Language Processing (NLP).



This platform provides various kinds of models, which we can integrate into our projects. It also provides us with huggingface API endpoints that helps us to build generative AI applications as all the open source models are available in the huggingface platform. Most of the companies that specifically use open source models, they integrate these models onto their projects using huggingface.

## Key Components & Functions

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- **Model Hub:** A massive collection of over 1.6 million pre-trained models for diverse applications.
- **Datasets:** Hundreds of thousands of datasets for training and evaluating AI models.
- **Spaces:** Interactive demos (Gradio/Streamlit apps) to explore and use AI models directly in the browser.
- **Transformers Library:** A popular open-source python library for providing easy access to models and tools for NLP and beyond.
- **Community & Collaboration:** A social network for AI enthusiasts, researchers, and developers to share, collaborate, and learn.

## What it enables

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- **Democratizes AI:** Lowers barriers to entry for building complex AI applications.
- **Practical Tools:** Bridges research with real-world applications through stable deployable models.
- **Industry Standard:** Hosts many models that have become industry benchmarks for various tasks.