Open-Source LLMs with Hugging Face

AI First AI Engineering Course - Batch 1 - Day 2

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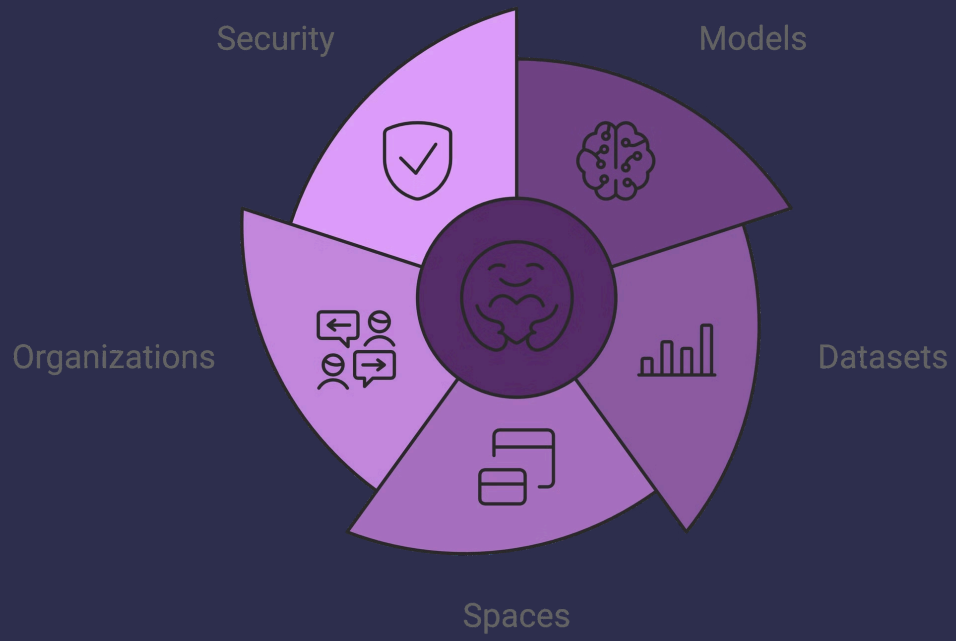
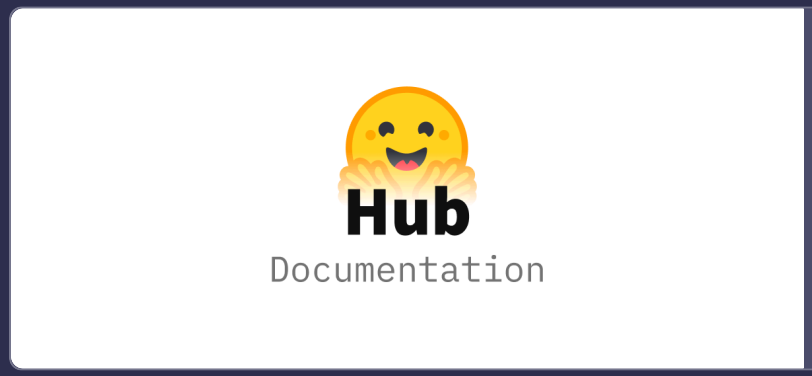
Introduction to the HuggingFace Library

- **HuggingFace** is an **open-source library** that offers state-of-the-art NLP models and tools.
- It was initially released in 2018 and has gained popularity among the NLP community due to its **ease of use and powerful functionalities**.
- With HuggingFace, users can easily train and **fine-tune various NLP models**



HuggingFace Hub

- Pre-Trained Models
- Easy-to-Use API
- Modular Design
- Community Support



huggingface

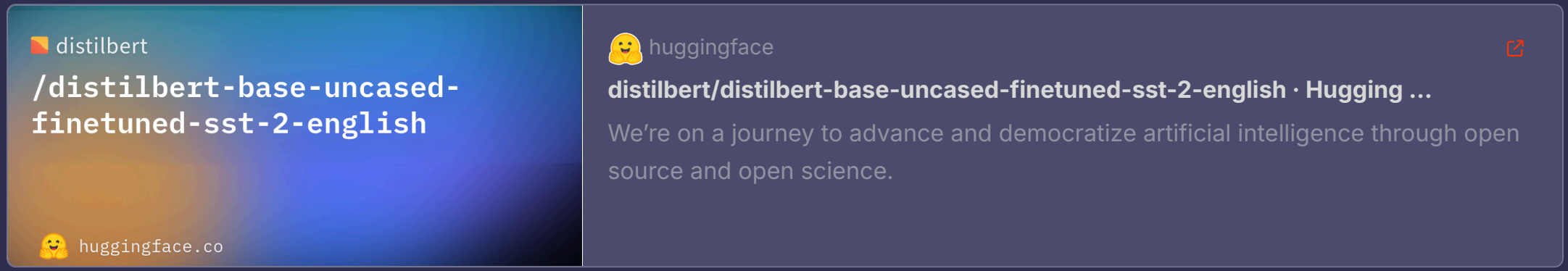
Hugging Face Hub

We’re on a journey to advance and democratize artificial intelligence through open source and open science.

HuggingFace Pipelines and Transformers

- easiest and fastest way to use a pretrained model for **inference**
- can be used out-of-the-box for many tasks across different modalities
- Note: A lot of our code today is based on the HF Documentation and tutorials! For additional information, and if you have extra time, please feel free to go through the other HF documentation ☺️

HuggingFace Model Cards



1 Model Description

2 Performance Metrics

3 Ethical Considerations

4 Usage Guidelines

Finetuning with HuggingFace's Trainer

1

Pre-trained Model

Begin with a pre-trained model that has learned general patterns and representations from a massive dataset. This model serves as a strong foundation for your specific task.

2

Task-Specific Data

Gather a dataset specifically relevant to your target task. This dataset should include examples that reflect the nuances of your problem domain.

3

Fine-tuning Process

Train the pre-trained model on your task-specific data, adjusting its parameters to better fit your specific requirements. This process optimizes the model for the desired outcome.

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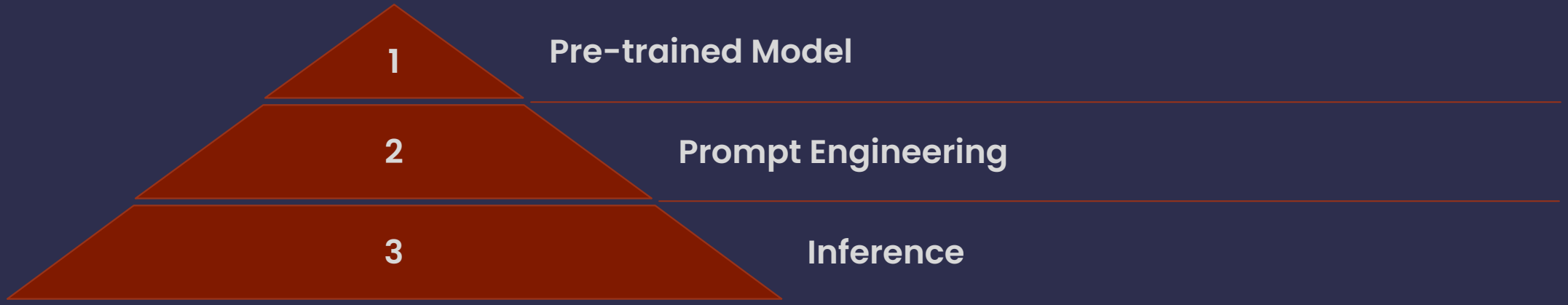
Introduction to Finetuning with HuggingFace

Few-shot Learning with HuggingFace



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