

Hugging Face

Course Overview

Introduction :

- Start your Hugging Face - Generative AI journey today

What You'll Learn :

- Understanding of Hugging Face Platform
- Explore different models, Datasets, documents and ecosystem
- Play with Pipelines

Highlights :

- Course Duration - 1 days (8 Hours)
- Number of Modules - 8

Prerequisites:

- Basic understanding of Python programming
- Familiarity with natural language processing concepts is recommended
- No prior experience with Hugging Face is required

Note -

- Some experience with programming is suggested.
 - The hands-on labs will provide practical experience with setting up
 - Hands-on Approach
 - This course can be customised based on the audience's prior knowledge and specific areas of interest.
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Course Curriculum

MODULE 1: Introduction to Hugging Face

- Overview of Hugging Face and its significance in NLP
- Exploration of Hugging Face's model repository
- Introduction to the Hugging Face Transformers library

MODULE 2: Hugging Face Models

- Diving deeper into pre-trained models
- Understanding model architectures: BERT, GPT, T5, and more
- Hands-on: Fine-tuning a model for sentiment analysis

MODULE 3: Hugging Face Datasets

- Overview of the Hugging Face Datasets library
- Accessing and utilising various datasets for NLP tasks
- Hands-on: Loading, preprocessing, and using custom datasets

MODULE 4: Hugging Face Documents

- Introduction to Hugging Face Documents
- Leveraging document-level models
- Hands-on: Building a document summarization application

MODULE 5: Hugging Face Ecosystem: Pipelines and Tokenizers

- Utilising Hugging Face Pipelines for easy NLP tasks
- Customising and chaining pipeline components
- Hands-on: Creating an NLP pipeline for text generation

MODULE 6: Model Interpretability and Explainability

- Importance of model interpretability in NLP
- Interpreting model predictions using Hugging Face tools
- Hands-on: Using LIME and SHAP for model explanations

MODULE 7: Advanced Topics in Hugging Face

- Multi-modal models: Combining text and images
- Cross-lingual and zero-shot learning with Hugging Face

MODULE 8: Project Showcase and Future Directions

- Participants present their Hugging Face projects
- Opportunities and challenges in NLP using Hugging Face

By the end of this course, participants will have a thorough understanding of how to harness the power of Hugging Face's models, datasets, documents, and ecosystem to tackle a wide range of NLP tasks and challenges.

Happy learning! ☒