

NLP with Transformers (Practical Applications)

COURSE OVERVIEW

This course introduces participants to the powerful capabilities of transformer-based models in Natural Language Processing (NLP). Participants will explore how models like BERT, GPT, RoBERTa, and T5 work, and how to apply them to real-world tasks such as text classification, question answering, summarization, and translation. Using popular libraries like Hugging Face Transformers and tools such as PyTorch or TensorFlow, participants will gain the skills required in fine-tuning pre-trained models and deploying NLP solutions.

WHO SHOULD ATTEND?

The course is designed for data scientists, AI/ML practitioners, software engineers and researchers who want to deepen their expertise in NLP and apply transformer-based models to solve practical problems. It is also valuable for professionals working in industries such as finance, healthcare, customer service, and technology, where NLP-driven insights and automation can deliver significant impact.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Explain transformer model architecture and mechanics.
- Apply pre-trained transformers to tasks like sentiment analysis, summarization, and Q&A.
- Fine-tune models for specific domains and needs.
- Use the Hugging Face Transformers library for training and deployment.
- Manage large datasets and perform tokenization effectively.
- Evaluate model performance and apply responsible, ethical practices with large language models.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Transformer architecture and the self-attention mechanism.
- Tokenization, embeddings, and sequence classification for NLP tasks.
- Applications such as chatbots, sentiment analysis, summarization, translation, and ethical considerations.
- Hands-on use of BERT, GPT, RoBERTa, T5, and other large language models (LLMs).
- Techniques for fine-tuning models with custom datasets.
- Use of Hugging Face, PyTorch, and TensorFlow for NLP modelling.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded