Global Horizon
TRAINING CENTER

Training Course:
Natural Language Processing (NLP)

20 April - 1 May 2025
Istanbul (Turkey)
DoubleTree by Hilton Istanbul Esentepe

Training Course:
Natural Language Processing (NLP)

Training Course code: IT235240 From: 20 April - 1 May 2025 Venue: Istanbul (Turkey) - DoubleTree by Hilton Istanbul Esentepe Training Course Fees: 9600 Euro

Introduction

Natural Language Processing NLP training program designed by Global Horizon is a transformative field that enables machines to understand and interact with human language. It has revolutionized industries ranging from healthcare and customer service to finance and education. This 10-day NLP training program is designed to provide a comprehensive foundation in NLP, equipping participants with the knowledge and skills needed to work with text data, build NLP models, and understand the practical applications of this technology.

Objectives

By the end of this 10-day NLP training program, participants will:

- Comprehend NLP Fundamentals: Develop a deep understanding of NLP, its historical context, and the key challenges it addresses.
- Master Text Preprocessing: Learn to preprocess text data effectively, including cleaning, tokenization, and feature engineering.
- Acquire NLP Core Concepts: Gain expertise in core NLP techniques, such as part-of-speech tagging, named entity recognition, and sentiment analysis.
- Deep Dive into Deep Learning: Explore the fundamentals of deep learning and its application in NLP, covering neural networks, word embeddings, and sequence-to-sequence models.
- Leverage Pre-trained Models: Understand the power of pre-trained models, particularly the Transformer architecture, and practice fine-tuning them for specific tasks.
- Apply NLP to Real-world Problems: Work on hands-on projects, including text summarization, machine translation, and chatbot development.
- Collaborative Project Development: Collaborate with peers on an NLP project, applying your knowledge to real-world challenges.
- Presentation and Peer Review: Present your project findings, receive peer feedback, and enhance your project based on the insights.
- Model Deployment and Ethical Considerations: Explore model deployment options and understand the ethical implications of NLP.
- Preparation for Further Exploration: Equip yourself to dive deeper into advanced NLP topics or pursue research in this dynamic field.

Target Audience

This 10-day NLP training program is tailored for individuals who want to gain a strong foundation in NLP and its practical applications. The target audience includes:

- Aspiring data scientists and machine learning engineers looking to specialize in NLP.

- Software developers interested in integrating NLP into applications, chatbots, or virtual assistants.
- Linguists and language enthusiasts intrigued by the intersection of language and technology.
- Students and professionals in computer science, data science, AI, or related fields who want to harness NLP's capabilities.
- Anyone enthusiastic about learning how machines understand and generate human language.

Training Program Outline

Day 1: Introduction to NLP

- Overview of NLP and its real-world applications.
- Historical evolution of NLP.
- Key challenges in NLP.

Day 2: Text Preprocessing

- Data cleaning: handling noise, removing HTML tags, etc.
- Tokenization and stemming/lemmatization.
- Stop word removal and special character handling.

Day 3: NLP Fundamentals

- Introduction to language models and grammar.
- Part-of-speech tagging and named entity recognition.
- Basic text classification and sentiment analysis.

Day 4: Deep Learning for NLP Part 1

- Introduction to deep learning.
- Basics of neural networks for NLP.
- Word embeddings: Word2Vec and GloVe.

Day 5: Deep Learning for NLP Part 2

- Sequence-to-sequence models.
- Attention mechanisms.
- Hands-on exercise: Building a basic text generation model.

Day 6: Pre-trained Models and Transformers

- Introduction to pre-trained models.
- Overview of Transformer architectures.
- Practical exercise: Fine-tuning a pre-trained model for a specific task.

Day 7: Advanced NLP Applications

- Exploring advanced NLP applications: text summarization, machine translation, and question answering.
- Project brainstorming and team formation.

Day 8: Hands-On Project Work

- Collaborative project work.
- Guidance and assistance from instructors.
- Progress monitoring and problem-solving.

Day 9: Project Presentation and Evaluation

- Teams present their NLP projects.
- Peer review and constructive feedback.
- Model evaluation and improvement.

Day 10: Model Deployment and Ethical Considerations

- Model deployment options: API, web application, or container.
- Ethical considerations in NLP.

Registration form on the Training Course: Natural Language Processing (NLP)

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....
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Payment Method

☐ Please find enclosed a cheque made payable to Global Horizon

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