

Welcome to ineuron.ai

NATURAL LANGUAGE PROCESSING



Natural Language Processing

Description:

In this course, you will learn to create tools to translate languages and summarize text, and even build chatbots. You will learn how to analyze text, create models, uncover contextual patterns and produce insights from the text. Learning NLP is critical in effectively analyzing massive quantities of textual data.

Start Date:

Doubt Clear Time:

Course Time:

Features:

- # Online Instructor-led learning
- # Practical Implementation
- # Integrate academic knowledge with the tech
- # Real-time Project

- # Live Class Recording
- # Doubt Clearing
- # Assignment in all the Module
- # Quiz in every Module
- # Career Counselling
- # Completion Certificate

What we learn:

- # Introduction to Natural Language Processing
- # Purpose of NLP
- # Applications of NLP
- # Text processing using NLP
- # Word embedding
- # Introduction to NLTK
- # Introduction to Text Blob
- # Introduction to SpaCy

Requirements:

- # System with Internet Connection
- # Interest to learn
- # Applications of NLP

Instructor:

>Introduction to the course :

- >>Course Introduction
- >>Who is this course for?

>>Course Outcome

>>Course Prerequisite

>>What is NLP?

>>What is the purpose of using NLP?

>>What are the possible applications of NLP?

>>Why we use python for NLP?

**>MotionIntroduction to the
course :**

>>Course Overview

>Assignment 1:

>>How NLP used in daily life?

>Text Preprocessing :

>>What are python strings ?

>>What are string methods?

>>Learning operations on string methods

>>What is string concatenation?

>>How to import text?

>Assignment 2:

>>Why is text preprocessing required in NLP?

>Word Embedding:

- >>What are Word Embeddings?
- >>Why are Word Embeddings used?
- >>What is One-Hot Encoding?
- >>What are the disadvantages of One-Hot Encoding?
- >>What are Embeddings?
- >>What is the use of Embeddings?
- >>What are Bag of words?
- >>What is the use of Bag of Words?
- >>What is TF-IDF?
- >>What is the use of TF-IDF?
- >>What is N-Gram?
- >>What are Unigram,Bigram and Trigram?

>Assignment 3:

- >>Take your english book paragraph and convert them into word embeddings

>NLTK:

- >>What is NLTK?
- >>Why is NLTK required?
- >>How to Install NLTK?
- >>How to make text lowercase?
- >>How to remove numbers?
- >>How to remove punctuation?

>>What are Stopwords?

>>How to remove Stopwords?

>>What is Stemming?

>>Why is Stemming required?

>>What is Porter Stemmer?

>>What is Snowball Stemmer?

>>What is lemmatization?

>>Why is lemmatization required?

>>What is WordNetLemmatizer?

>Assignment 4:

>>What is the difference between Stemming and Lemmatization ?

>Assignment 5:

>>What is the difference between Porter Stemmer and Snowball Stemmer? Which is better?

>TextBlob:

>>What is TextBlob?

>>Why TextBlob is used?

>>How to install TextBlob?

>>How to create your first TextBlob?

>>What is Part-of-speech?

>>What is Part-of-speech(POS) Tagging?

>>What is Noun Phrase Extraction?

- >>What is Sentiment Analysis with TextBlob?
- >>What is Polarity?
- >>What is Subjectivity?
- >>What is Tokenization?
- >>How to Perform Tokenization with TextBlob?
- >>What are Word Inflection and Lemmatization?
- >>What is WordNet Integration?
- >>What is WordNet?
- >>What is Synset?
- >>What are WordLists?
- >>How to use WordLists?
- >>What is Spelling Correction?
- >>How to perform Spelling Correction?
- >>What is translation and language Detection
- >>What is Parsing?

>Project:

- >>Building a Text classification System

>Assignment 6:

- >>Building your own Text classification System

>Spacy:

- >>What is Spacy?

- >>Why is Spacy used?
- >>Installation of Spacy?
- >>What are the features of Spacy?
- >>Tokenization in Spacy
- >>Part-of-speech(POS) tags and dependencies of Spacy
- >>What are Named Entities?
- >>What is the visualizing the named entity recognizer?
- >>What are Words vectors and similarities?
- >>What are pipelines?
- >>What are Vocab, hashes, and lexemes?
- >>What is Knowledge Base?
- >>How Knowledge Base is used?
- >>What is the candidate generation?

>Project :

- >>Perform text summarization using Spacy

>Assignment 7:

- >>Using Spacy perform text summarization on history book chapter.

>Project 1:

- >>We will perform a text summarization project

>Project 2:

>>Text to speech generation

>Project 3:

>>Speech to text generation

>Course Summary :

>>Course Outro

>>Future learning path