

# Python NLP: Text Classification & Sentiment Analysis

Learn to process, classify and analyse text in Python, from tokenization and feature extraction to sentiment analysis.

**7**

MODULES

**39**

TOPICS

## COURSE OVERVIEW

This course covers the fundamentals of natural language and a Python refresher before moving into text processing techniques such as tokenization and normalization. It then addresses text classification, including feature extraction, classification algorithms and model evaluation, followed by text summarization methods such as topic modelling and keyphrase extraction. Later modules examine text similarity, document clustering, semantic analysis with WordNet, named entity recognition and sentiment analysis.

## WHO THIS COURSE IS FOR

NLP Engineers

Data Scientists

Python Developers

Machine Learning Engineers

Text Analytics Analysts

## LEARNING OBJECTIVES

- Explain core concepts of natural language and linguistics
- Apply Python syntax, data structures and regex for text tasks
- Perform text tokenization and normalization
- Describe the text classification blueprint and feature extraction
- Evaluate classification algorithms and their performance
- Apply topic modelling and keyphrase extraction for summarization
- Analyse text and document similarity for clustering
- Identify named entities and disambiguate word senses

# 7 Modules, 39 Topics

01

## Natural Language Basics

### TOPICS

Natural Language · Linguistics · Language Syntax and Structure · Text Corpora · Natural Language Processing

02

## Python Refresher

### TOPICS

Python Syntax and Structure · Data Structures and Types · Control Flow · Functional Programming · Classes · Regex in Python

03

## Processing and Understanding Text

### TOPICS

Text Tokenization · Text Normalization · Understanding Text Syntax and Structure

04

## Text Classification

### TOPICS

What is Text Classification? · Text Classification Blueprint · Text Normalization · Feature Extraction · Classification Algorithms · Evaluation Classification Models

05

## Text Summarization

### TOPICS

Text Summarization and Information Extraction · Feature Matrix · Single Value Decomposition · Keyphrase Extraction · Topic Modelling · Automated Document Summarization

06

## Text Similarity and Clustering

### TOPICS

Information Retrieval · Feature Engineering · Text Similarity · Analyzing Term Similarity · Analyzing Document Similarity · Document Clustering · Clustering Greatest Movies of All Time

07

## Semantic and Sentiment Analysis

### TOPICS

Semantic Analysis · Exploring WordNet · Word Sense Disambiguation · Named Entity Recognition · Analyzing Semantic Representation · Sentiment Analysis

#### WHAT IS INCLUDED

## Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

#### ABOUT KOENIG

## Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

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