

## AI for Natural Language Processing (NLP)

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### Course Summary

#### Description

This course addresses the need for smart software for text processing

#### Topics

- AI overview
- Text processing elements
- AI with TensorFlow and Keras

#### Audience

This course is intended for software architects and engineers

#### Prerequisite

The prerequisites for this course are:

- Familiarity with any programming language
- Be able to navigate Linux command line
- Basic knowledge of command line Linux editors (VI / nano)

#### Duration

Three Days

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# Course Outline

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#### I. *AI overview*

- A. A brief history of AI
- B. Types of AI systems
- C. Training machine learning models
- D. Applying models for prediction
- E. Demos and Labs

#### II. *Text processing elements*

- A. TF-IDF
- B. Word2vec
- C. Tokenizers, n-grams
- D. Stopword removal
- E. Text processing pipelines

#### III. *AI with TensorFlow and Keras*

- A. Google democratization of AI with TensorFlow
- B. Types of neural network (Perceptron, CNN, RNN) and their use
- C. Text processing with TensorFlow
- D. Use cases and labs