**Lecture 1 | Natural Language Processing with Deep Learning**

Notes:

0:00

Opening Remarks

“Our goal is how we can get computers to process or understand human languages in order to perform tasks that are useful.”

6:16

NLP Levels – the levels of human languages.

* Inputs: Speech and Text and their Processing
* Morphological Analysis: Working out the parts of complex **words**
* Syntactic Analysis: Working out the structure of **sentences**
* Semantic Interpretation: Working out the **meaning** of sentences
* Pragmatics/Discourse Processing: Meaning of sentences given greater context

8:32

A sample of NLP Applications from simple to complex:

* Spell Checking, Keywork Search, finding synonyms

12:21

What’s special about human language?

Discusses how language is differentiated from other types of data dealt with by data processing tools.

17:32

What is Deep Learning?

27:05

Explains the phenomena of Deep Learning’s outperformance of other ML methods

32:20

Course Logistics and Introduce co-lecturer and TAs

34:30

Pre-requisites for course

35:51

Goals of Course

36:29

Grading Policy

42:20

NLP Overview

“Why is NLP Hard?”

Clearing up ambiguities is a major difficulty of NLP.

52:40

“Deep NLP” combining the ideas and goals of NLP with using representation learning and deep learning methods to solve them.