Deep Learning for Everyone
Season II (Deep NLP!)

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https://hunkim.github.io/ml/
https://www.facebook.com/groups/TensorFlowKR/
NLP: Natural Language Processing

• Understanding what you are saying/writing

• Several levels of understandings
  - Syntactic
  - Semantic
  - Meaning (thinking)

• Perfect language understanding is AI-complete

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NLP levels

- Phonetic/Phonological Analysis
- OCR/Tokenization
- Morphological analysis
- Syntactic analysis
- Semantic Interpretation
- Discourse Processing

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NLP Applications

- Applications range from simple to complex:
  - Spell checking, keyword search, finding synonyms
  - Extracting information from websites such as product price, dates, location, people or company names
- Classifying, reading level of school texts, positive/negative, sentiment of longer documents
- Machine translation
- Spoken dialog systems
- Complex question answering

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(Tentative) topics

- Chatbots
- NLP vs Deep NLP
- Word2Vec
- NN for NLP
- Recurrent Neural Network
- Recursive Neural Network
- Attention and Memory
Facebook says 10K+ developers are building chatbots, analytics are coming

Posted May 10, 2016 by Lucas Matney (@lucas_matney), Josh Constine (@joshconstine)

https://techcrunch.com/2016/05/10/facebook-chatbot-analytics/
Chatbots

Chatbot - NLP application

• Extracting information from given text/speech

• Simple dialog systems

• Three simple platforms
  - Api.ai: Conversational UX Platform
  - Wit.ai: Facebook bot NLP processing engine
  - Amazon Echo (Alexa) skill set
Prerequisite

- Deep Learning Session 1
- https://hunkim.github.io/ml/
Next
chatbot: Api.ai