

# Deep Learning for Everyone Season II (Deep NLP!)

Sung Kim <hunkim+ml@gmail.com>

<https://hunkim.github.io/ml/>

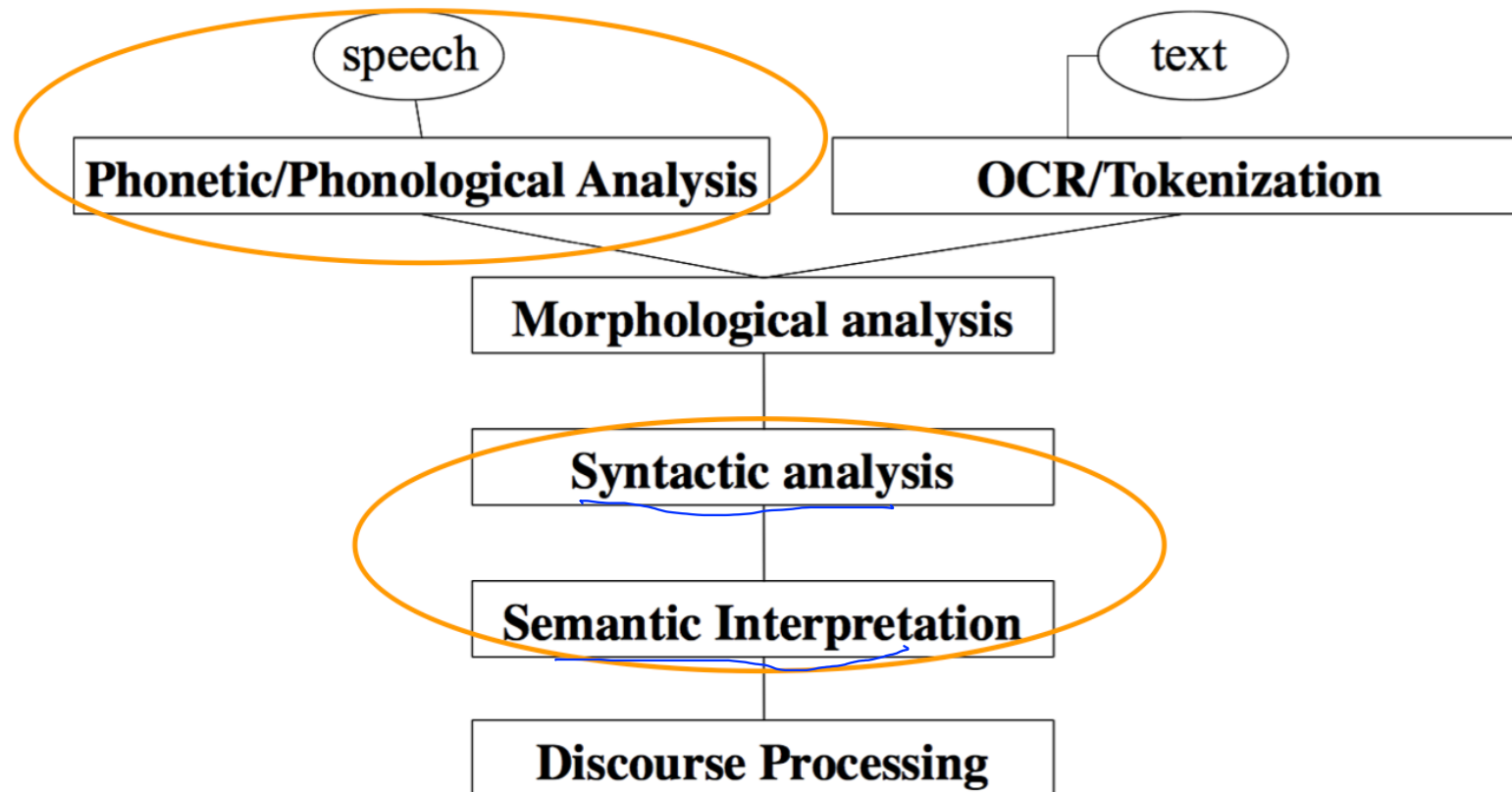
<https://www.facebook.com/groups/TensorFlowKR/>

# NLP: Natural Language Processing

- Understanding what you are saying/writing
- Several levels of understandings
  - Syntactic
  - Semantic
  - Meaning (thinking)
- Perfect language understanding is AI-complete

*I like NLP.* (A) (B)

# NLP levels



# 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

# (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 \(@joshconstine\)](#)

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## CrunchBase

### Facebook

**FOUNDED**  
2004

#### OVERVIEW

Facebook is an online social networking service that allows its users to connect with friends and family as well as make new connections. It provides its users with the ability to create a profile, update information, add images, send friend requests, and accept requests from other users. Its features include status update, photo tagging and sharing, and more. Facebook's profile structure includes ...

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

# Chatbots



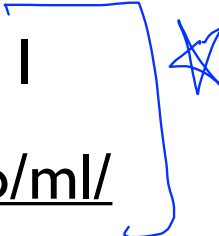
[http://www.zdnet.co.kr/news/news\\_view.asp?article\\_id=20160523095336](http://www.zdnet.co.kr/news/news_view.asp?article_id=20160523095336)

# 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 I
  - <https://hunkim.github.io/ml/>
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**Next**  
chatbot: [Api.ai](https://api.ai)

