# Lecture 1: Overview

2018年7月3日 星期二 下午4:37

# **NLP Levels**

Phonetic Analysis OCR/Tokenization 设备/为in

Morphological Analysis

那点多分析.
Syntactic Analysis
的证分析.
Semantic Interpretation
论文理确.
Discourse Processing
itive 理解。?

我们主要的方向是哪些部分呢?

Brown -> Language -> Voice.

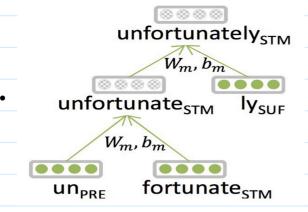
Continuous -> 3ymbolic -> continues

# 1.Morphology

- Traditional Method: 词素法
  - Prefix + Stem + Suffix

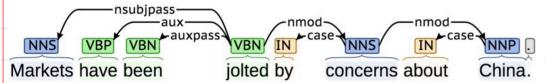
prefix stem suffix un interest ed

- Deep Learning:
  - Morpheme Vector 词素向量
  - NN combines vectors into one



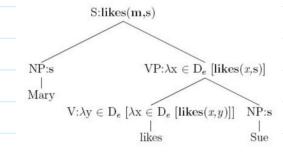
#### 2.Syntactic

- Deconstruct sentences
- Disambiguation (消岐)

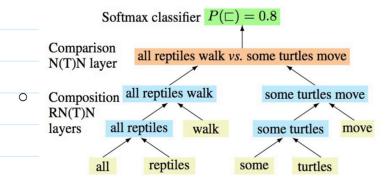


# 3.Semantic

- Traditional method : Lambda calculus
  - Manually engineered lambda functions
  - Lots of specific rules



- Deep Learning: Phrase Vector
  - Compositions of multiple vectors
  - Soft max Classifier



# 4.Applications

- Auto Complete on Smart phone
- Spell checking
- Extract Information on Websites
- Machine Translating
- Sentiment Analysis for Marketing
- Dialogue Agents