c:₩>git clone https://github.com/yungbyun/clecturenote.git

AI and Deep Learning

인공지능

Jeju National University

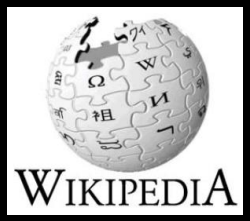
Yung-Cheol Byun

- AI 비서 아마존 알렉사와 MS 코르타나, 연말부터 대화(8.31)
- 4차산업혁명의 핵심, AI와 빅데이터에 1조 2천억 원 투입(8.29)
- 과학기술정보통신부 유장관, 4차산업혁명위 내달 출범(8.29)
- 중국의 AI 굴기, 2030년 전분야서 미국 제치고 세계 1위 야심(7.24)
- 인간 따돌린 AI(페이스북) 챗봇끼리의 대화(7.24)
- 아마존 창고, AI 로봇이 초당 50건 씩 배송처리(7.24)
- AI 의사가 환자 24시간 관리하는 시대 온다(7.6)

Agenda

- Artificial Intelligence
- Brain and Neurons
- 학습이란(Learning)?
- 회귀(Regression)
- Deep Neural Networks
- CNN
- RNN
- 비지도학습(Unsupervised Learning)
- 강화학습(Reinforcement Learning)
- AI Applications

지능(Intelligence)?



- One's capability for logic, understanding, self-awareness, learning, planning, creativity, and problem solving
- The ability to perceive information, and to retain it as knowledge to be applied towards adaptive behaviors within an environment

인공(Artificial) 지능

- Intelligence exhibited by machines
- A computerized version of the human intelligence
- Theory and development of computer systems able to perform tasks such as visual perception, voice recognition, decision-making, and translation between languages

Google Photos

검색 : ‘아빠’, ‘바다’, ‘비행기’,…

Voice Recognition

Text Message
Memo, Diary

Music Recognition

SoundHound

Many Applications

- 번역
- 추천 (Facebook, Amazon, Netflix…)
- and so on

2017년, AI에서의 획기적인 사건

@WEF, Davos

WORLD ECONOMIC FORUM
COMMITTED TO IMPROVING THE STATE OF THE WORLD
RÖSLER
MAURER
ULUKAYA
DE CROO
ŞİMŞEK
Source: WEF

4th

Industrial Revolution
(산업혁명)

AlphaGo
Lee Sedol

Google DeepMind
Challenge Match
8 - 15 March 2016

YTN
浙江省

Demis Hassabis, CEO of Google DeepMind

The Core of 4th Industrial Revolution

Intelligent Products/Project

Home Assistant 1

Echo Dot (Alexa inside)

컴퓨터가 잘하는 것,
사람이 잘하는 것

Now,
machines do better
than human in most
areas with AI.

How can machines get AI?

요 약

- 지능과 인공지능
- 인공지능 사례
- 4차산업혁명
- 사람보다 잘하는 컴퓨터, 어떻게?