ITRI 616 AI Exam.

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# Introduction

Inventors have long desired to make machines that can think the way that humans do (Kai et al., 2013). Since programmable computers, people wondered if these computers could ever become intelligent (Goodfellow et al., 2016). In the beginning we looked at intelligent software with the intent to solve human problems, such as make medical diagnoses, routine labour automatic, have an understanding of images and speeches, as well as support scientific research (Kelleher, 2019).

We generally use artificial intelligence to solve problems that are difficult for humans, but straight forward for computers (Goodfellow et al., 2016). The real challenge for artificial intelligence is to do what a human find easy, where a computer finds it difficult, for example tasks that we as humans feel happen automatic, such as reading spoken words out loud, or recognizing faces in photos (Goodfellow et al., 2016).

In this paper …

# History of deep learning

Deep learning has improved dramatically in different artificial intelligent (AI) tasks such as machine translation, speech recognition and object detection (Wang & Raj, 2017). But the very nature of the deep architecture, researchers have extended the possibility of solving a variety of modern domains that exceed the norm of basic AI tasks, for example the diagnostics of speech signals, and the use of stacked autoencoders to find clustered patterns in gene expressions (Wang & Raj, 2017).

The beginning

# Deep Learning

According to Kelleher (2019) deep learning is a subfield of artificial intelligence that focuses on making big neural network models that are able to make data-driven decisions accurately. Deep learning is most useful when the data is complex and where the dataset is large, for example Facebook uses deep learning to analyse text conversations that took place online (Kelleher, 2019).

# Deep reinforcement learning

# Example of deep reinforcement learning

# Reference List

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