

Masterprojekt 2017/2018:

Nature Language Generation Using Generative Adversarial Networks

Deep Learning (DL), as a sub-area of machine learning (since 2006), has already been impacting a wide range of multimedia information processing. Recently, the techniques developed based on DL achieved substantial progress in fields including Speech Recognition, Image Classification and Language Processing.

GANs (Generative Adversarial Networks) (GoodFellow et al. 2014) is a novel framework for estimating generative models via an adversarial process, in which one can simultaneously train two models: a generative model G that captures the data distribution, and a discriminative model D that estimates the probability that a sample came from the training data rather than G . Although GAN has shown promising results in image and audio data domains, the language generation still remains a challenging problem.

In this project we want to build an infrastructure framework for nature language generation by using GANs. The existing GAN and its derived architectures will be studied and evaluated in the context of conversation AI domain e.g., novel training samples generation for building a Chat-Bot application.

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