

AI1811-Deep Learning

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2025.10.26

Lecture notes for deep learning AI-1811.

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§ 1. Introduction

§ 1.1. Lecture Overview

- Introduction
 - High dimensional data
 - 高维数据中的维数灾难
- Model Architecture
 - MLP
 - CNN
 - RNN
 - Transformer
- Advanced about deep learning
 - LLM reasoning
 - 凝聚现象

§ 1.2. NN and Polynomial

深度学习有万有逼近定理，多项式拟合也有 Weierstrass 逼近定理。

Recordings The bitter lesson.

The biggest lesson that can be read from 70 years of AI research is that general methods that leverage computation are ultimately the most effective, and by a large margin.

在实际情况下，我们发现神经网络的过拟合现象远小于多项式拟合。

§ 2. Conclusion