深度学习-syllabus

1. Introduction to Deep Learning
1.1. Preliminaries
1.2. Linear Neural Networks for Regression
1.3. Linear Neural Networks for Classification

2. Multilayer Perceptrons (MP)
2.1 Builders' Guide
2.2 Convolutional Neural Networks (CNN)
2.3 Modern Convolutional Neural Networks (AlexNet, VGG, NiN, GoogLeNet, ResNet, DenseNet)

3. Recurrent Neural Networks (RNN)
3.1 Modern Recurrent Neural Networks
3.2Attention Mechanisms and Transformers
3.3 Optimization Algorithms
3.4 Computational Performance
3.5 Computer Vision

4. Natural Language Processing: Pretraining (NLP)
4.1 Natural Language Processing: Applications (NLP)
4.2 Reinforcement Learning (RL)
4.3 Gaussian Processes
4.4 Hyperparameter Optimization
4.5 Generative Adversarial Networks
4.6 Recommender Systems