

<Large Scale Data Analysis Using Deep Learning>

Description

Deep learning is a branch of machine learning based on a set of algorithms that attempt to model high level abstractions in data. Deep learning is a driving force of the recent advances in AI.

In this course, we study core techniques of deep learning to analyze large amount of data. Topics include machine learning basics, deep feedforward networks, regularization, optimization, convolutional networks, recurrent neural networks, etc.

Instructor

Prof. U Kang, Department of Computer Science and Engineering, Seoul National University

Topics to be covered

- Linear Algebra
- Probability and Information Theory
- Numerical Computation
- Machine Learning Basics
- Deep Feedforward Networks
- Regularization for Deep Learning
- Optimization for Training Deep Models
- Convolutional Networks
- Sequence Modeling: Recurrent and Recursive Nets
- Practical Methodology
- Applications
- Autoencoders

Textbook

Deep Learning by Ian Goodfellow, Yoshua Bengio, and Aaron Courville