

Advanced machine learning

2018/19. II. semester

Period	4
Classes/week	2 + 0 + 2
Credit	6
Final exam:	Kollokvium

Course description:

Lab 1: Intro to Deep Learning

Lab 2: Neural Networks and Backpropagation

Lab 3: Embeddings and Recommender Systems

Lab 4: Convolutional Neural Networks for Image Classification

Lab 5: Deep Learning for Object Detection and Image Segmentation

Lab 6: Text Classification, Word Embeddings and Language Models

Lab 7: Sequence to Sequence for Machine Translation

Lab 8: Intro to PyTorch

Lab 9: Siamese Networks and Triplet loss

Lab 10: Variational Auto Encoder

Recommended Literature:

- François Chollet: Deep Learning with Python, Manning, 2017.
- Ian Goodfellow, Yoshua Bengio, Aaron Courville: Deep Learning, MIT Press, 2016.

Online course:

<https://www.coursera.org/specializations/deep-learning>