Week 2 9/27: course introduction (1-1.5 hours; class topics & evaluation)

Week 3 10/4: Python (1): Google CoLab and virtual environments (anaconda/miniconda/virtualenv) setup, variables, if-then-else

Week 4 10/11: day off due to double tenth day

Week 5 10/18: Python (2): loop & function (), introduction to numpy, matplotlib, Seaborn, and other useful tools. (student groups formed with each group of 5 persons at most)

Week 6 (10/25) Naive Bayes, linear regression, logistic regression, ridges and lasso regressions

Week 7 (11/01): SVM, decision tree

Week 8 (11/08): hyperparameter setting and model validation , random forest, boosting.

Week 9 (11/15): day off due to Athletic Day

Week 10 (11/22): mid-term presentation

Week 11 (11/29): mid-term presentation

Week 12 (12/06)： neural network: history, cost function, backpropagation, simple image classification, optimization I, convolutional neural network, introduction to Tensorflow/Pytorch I

Week 13 (12/13)： VGG, initialization, exploding and vanishing gradients, batch normalization, Resnet, optimization II, data augmentation, introduction to Tensorflow/Pytorch II

Week 14 (12/20)：deep learning without fine-tuning, comparison with classical machine learning methods. Segmentation and object detection, visualization method (tentative)(due date for term project proposal)

Week 15 (12/27)：deep learning on discrete data, Word2Vec, deep learning on sequential data, rnn, lstm, optimization method

Week 16 (1/03)：Seq2Seq Learning for Machine Translation, transfer learning, concluding remarks, In-class discussion for term project

Week 17 (01/10): term project presentation (1)

Week 18 (01/17): term project presentation (2)