

Course Information

- TensorFlow로 시작하는 Deep Learning 입문 CAMP 15기
- 5/23~8/1 오전 10시~오후 1시, 10층 H강의장
- Deep Learning 이론 + 실습(Google Colab 이용)
- Github : <https://github.com/jwlee-ml/>
- 강의자료 : http://bit.ly/tfcamp16_o

Schedule and Syllabus

주차	주제	세부내용
1	Introduction to Deep Learning	Course Intro. History, Trends and Limitations of Deep Learning
2	Neural Network Basic	Linear Regression Logistic Regression Multi-layer Perceptron
3	Training Neural Network	Activation Functions Weight Initialization Learning Rate Scheduling Regularization Methods Optimization Algorithms
4	CNN(Convolutional Neural Network)	Fundamentals of CNN Case Study: ImageNet Challenge Winners - AlexNet, ZFNet, VGG, GoogleNet, ResNet, ResNeXt, SNet
5	CNN(Convolutional Neural Network)	Modern CNN - MobileNet, SqueezeNet, ShuffleNet, EfficientNet - NAS(Neural Architecture Search) - Trends of Modern CNN - Visualization of CNN

Schedule and Syllabus

6	Object Detection & Segmentation	Object Detection - RCNN, Fast RCNN, Faster RCNN - YOLO, SSD, RetinaNet Image Segmentation - FCN, DeconvNet, DeepLab, Unet, PSPNet
7	RNN(Recurrent Neural Network)	Fundamentals of RNN LSTM(Long Short-Term Memory) GRU(Gated Recurrent Unit)
8	Natural Language Processing	Word Embedding Sentence Embedding Language Model Machine Translation
9	Machine Translation with Attention	Attention Transformer BERT
10	GAN(Generative Adversarial Network)	GAN Basics GAN Models - DCGAN - Conditional GAN - Pix2Pix - CycleGAN

참고할만한 곳

- 모두를 위한 딥러닝 시즌2

<https://www.youtube.com/watch?v=7eldOrjQVio&list=PLQ28Nx3M4Jrguyuwg4xegdgt2XE639e5C>

- PR12 Season 1 :

<https://www.youtube.com/watch?v=auKdde7Anr8&list=PLWKfgbeHi3Tg50UoyTe6rlm2osVQOH1br>

- PR12 Season 2 :

https://www.youtube.com/watch?v=FfBp6xJqZVA&list=PLWKfgbeHi3Tgstcln8K6dl_85_ppAxB8

- PR12 Season 3 :

https://www.youtube.com/watch?v=D-balgejA4M&list=PL_skMddDjnzq1wDI3t2cHghlK6wBBapeA

기타 온라인 강의

- TensorFlow Youtube Channel:
<https://www.youtube.com/channel/UCorqucBdTuFTjJiefW5t-IQ>
- Edwith : <https://www.edwith.org/>
- Udacity : <https://www.udacity.com/course/intro-to-tensorflow-for-deep-learning--ud187>
- Coursera : <https://www.coursera.org/learn/introduction-tensorflow>
- 외국 강의 모음 : <https://github.com/kmario23/deep-learning-drizzle>

온라인 communitiy

- 강의 Community : <https://www.facebook.com/groups/datacampdeeplearning2/>
- TensorFlow Korea Community : <https://www.facebook.com/groups/TensorFlowKR/>
- AI Korea : <https://www.facebook.com/groups/AIKoreaOpen/>
- PyTorch Korea : <https://www.facebook.com/groups/PyTorchKR/>