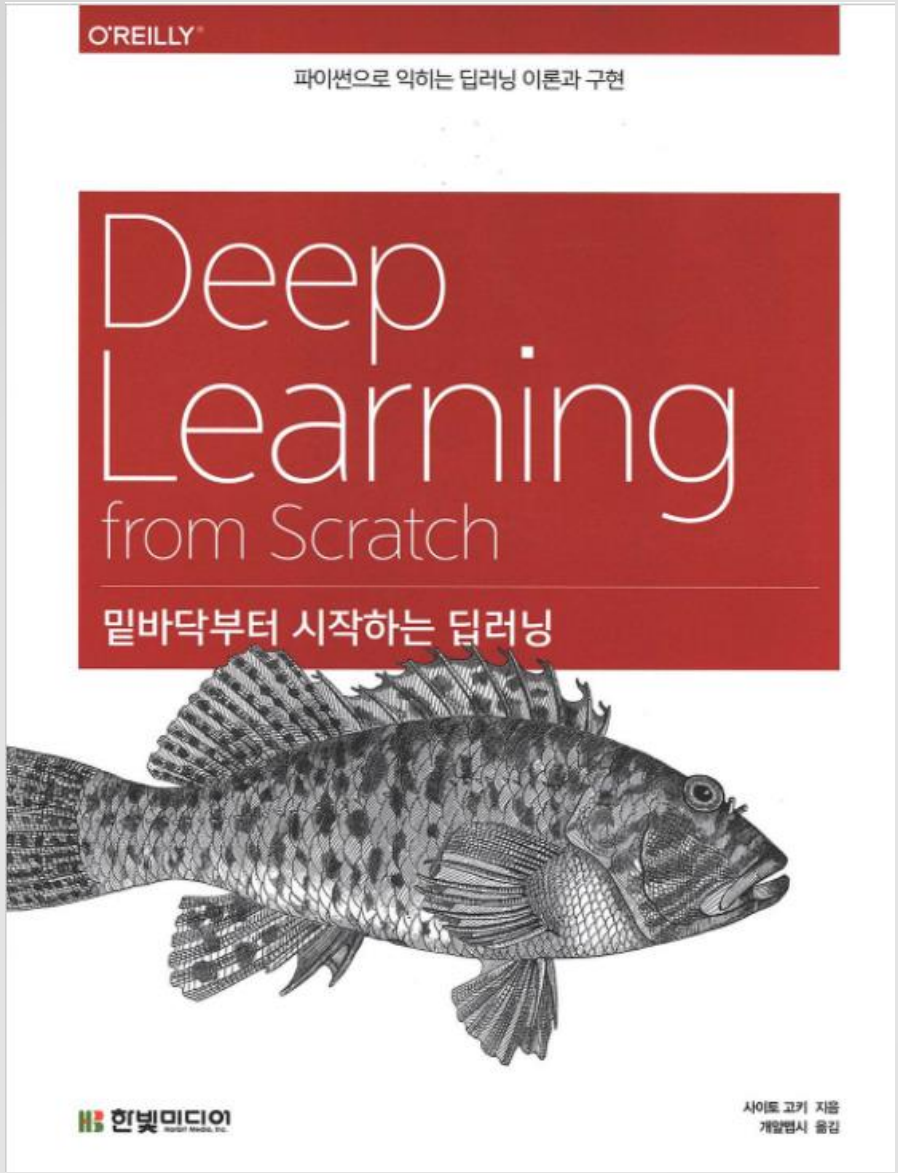
밑바닥부터 시작하는 딥러닝 스터디
중간발표

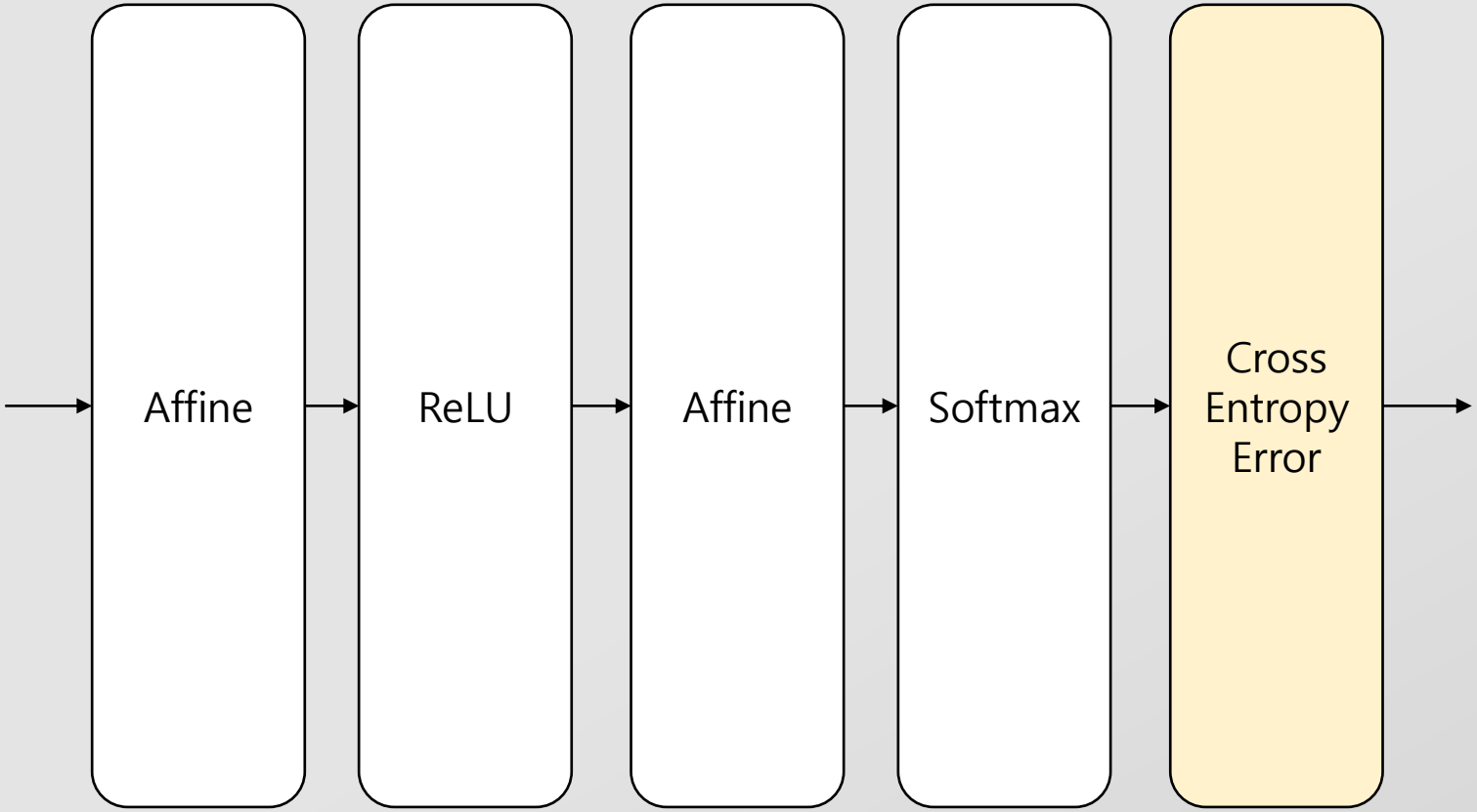
36기 손건호, 34기 이하영, 36기 배소정



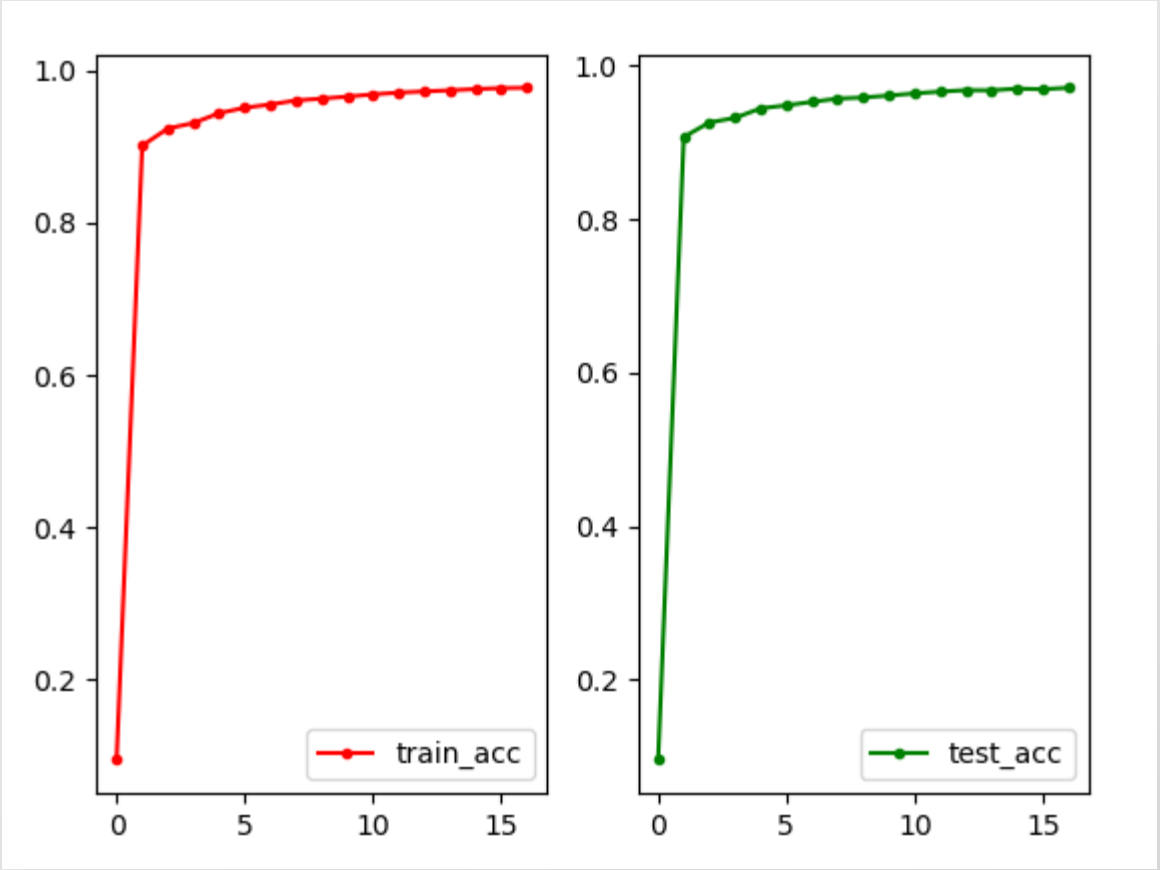
기간 : 3.10 ~ 4.7
시간 : 수요일 오후 8시
장소 : Discord

Data : MNIST

Network : TwoLayerNet



```
train_acc : 0.1311,      test_acc : 0.1242
train_acc : 0.9046,      test_acc : 0.9064
train_acc : 0.9232,      test_acc : 0.9271
train_acc : 0.9342,      test_acc : 0.9295
train_acc : 0.9458,      test_acc : 0.9434
train_acc : 0.9525,      test_acc : 0.9492
train_acc : 0.9578,      test_acc : 0.954
train_acc : 0.9618,      test_acc : 0.9551
train_acc : 0.9646,      test_acc : 0.958
train_acc : 0.9679,      test_acc : 0.9621
train_acc : 0.9702,      test_acc : 0.9633
train_acc : 0.9707,      test_acc : 0.9635
train_acc : 0.9736,      test_acc : 0.9649
train_acc : 0.9756,      test_acc : 0.967
train_acc : 0.9778,      test_acc : 0.969
train_acc : 0.9789,      test_acc : 0.9681
train_acc : 0.9796,      test_acc : 0.9704
```



1 Open ✓ 2 Closed

Create a file which has optimizers

#3 by hy-kiera was closed 7 days ago

Create a file of utilities for DNN

#2 by hy-kiera was closed 7 days ago

```python
class Functions():
    """Functions for DNN"""

    def __init__(self):
        return self

    # Activation Functions
    def step_function(self, x):
        y = x > 0
        return y.astype(np.int)

    def sigmoid(self, x):
        return 1 / (1 + np.exp(-x))

    def tanh(self, x):
        return np.tanh(x)

    def softmax(self, x):
        c = np.max(x)
        exp_x = np.exp(x - c) # avoid Overflow
        sum_exp_x = np.sum(exp_x)
        y = exp_x / sum_exp_x
        return y

    def relu(self, x):
        return np.maximum(0, x)

    def leaky_relu(self, x):
        a = 0.01
        if x < 0:
```

남은 반 학기 동안의 계획

책에서 배운 내용을 토대로 알파벳을 구별할 수 있는 신경망 구현하기
(CNN - handwritten alphabet data)

강화학습 맛보기
RL - DQN - openai gym

RCNN 맛보기

END