

밑바닥부터 시작하는 딥러닝 스터디

https://github.com/sohn1029/2021_DL_Study

from Scratch

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밑바닥부터 시작하는 딥러닝



스터디 진행 흐름

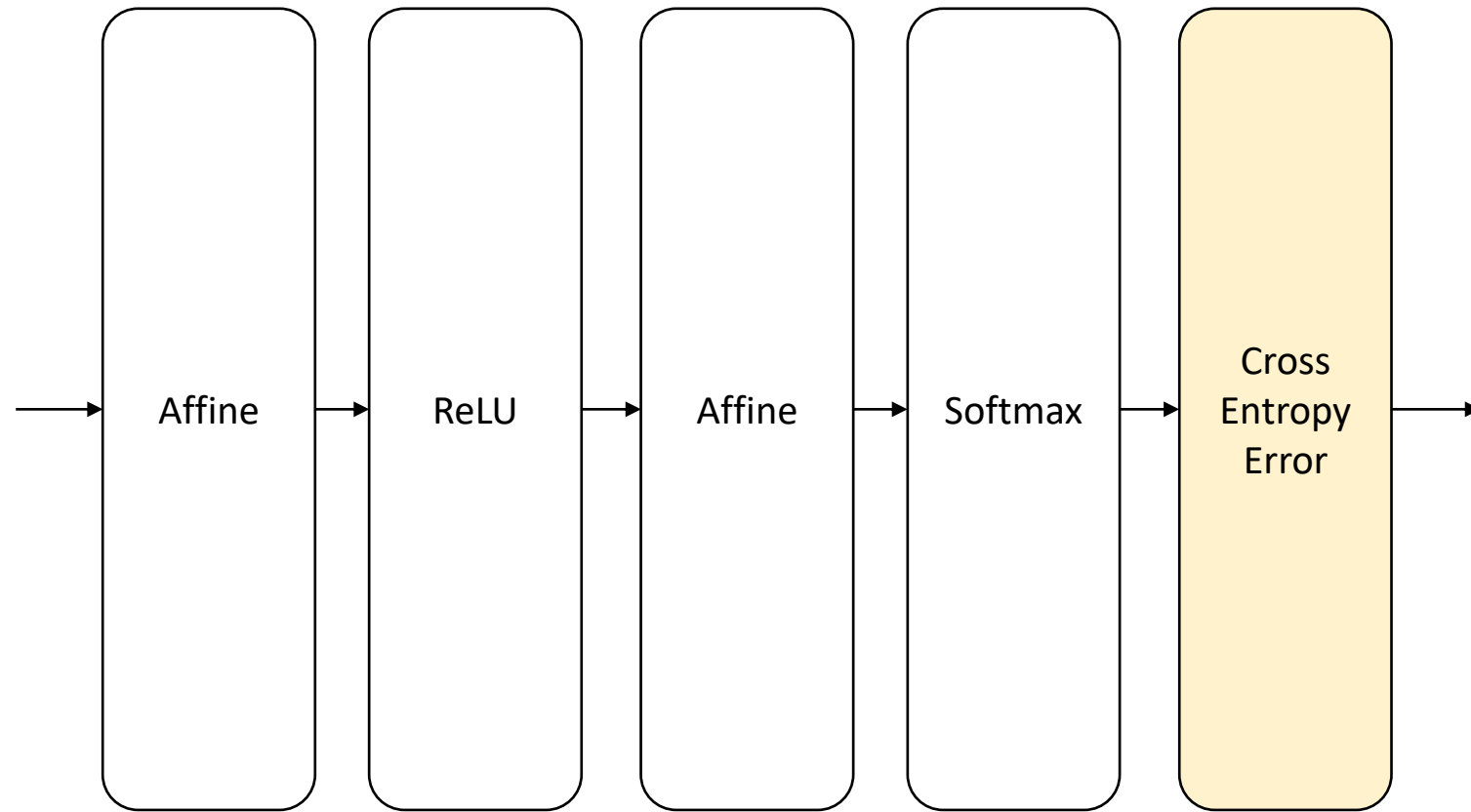
3.10	ch1 ~ ch4
3.17	ch5
3.24	ch6
3.31	ch7
4.6	MNIST 데이터 학습 및 결과 확인

-----중간고사-----

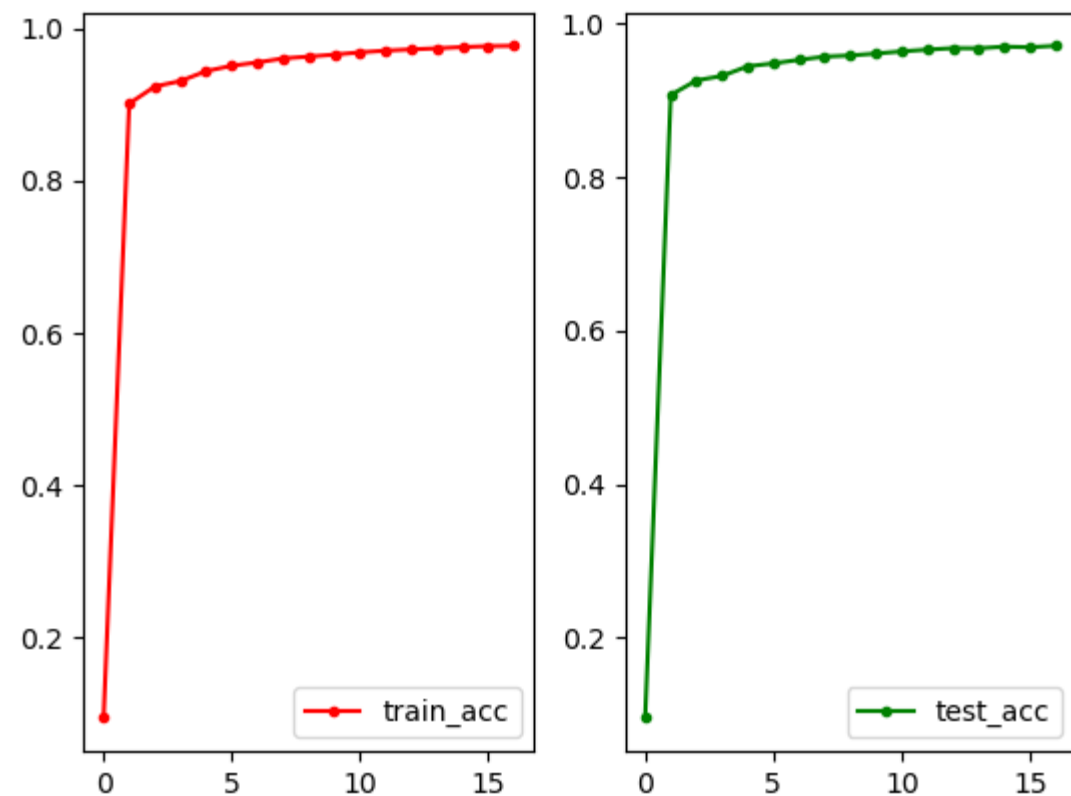
4.30	알파벳 판별 네트워크 만들기(cpu)
5.7	신경망 학습 및 결과 확인(cpu)
5.12	cupy 설치 및 사용법 숙지
5.19	알파벳 판별 네트워크 만들기(gpu)
5.26	신경망 학습 및 결과 확인(gpu)

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



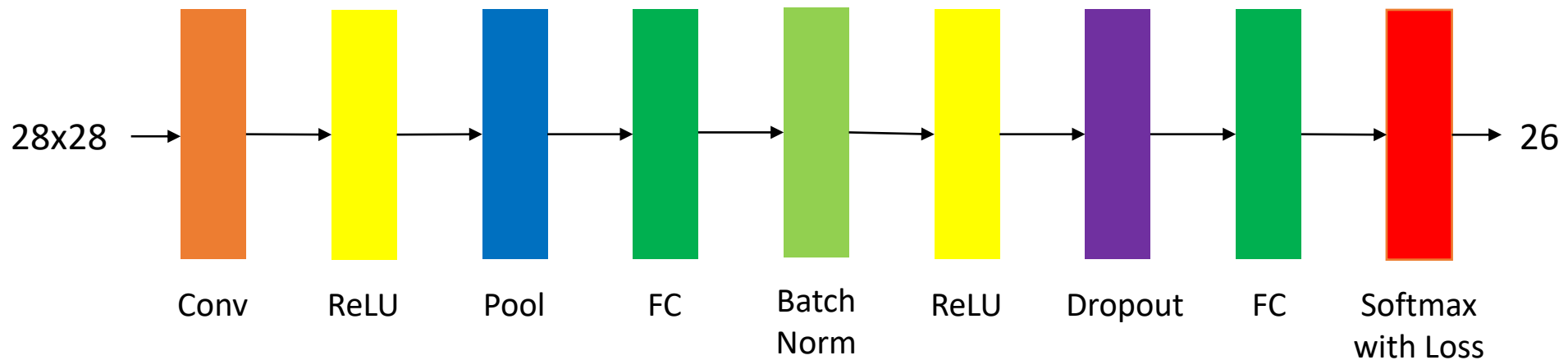
Convolutional Neural Network

Data : A-Z Handwritten Alphabets

(<https://www.kaggle.com/sachinpatel21/az-handwritten-alphabets-in-csv-format>)

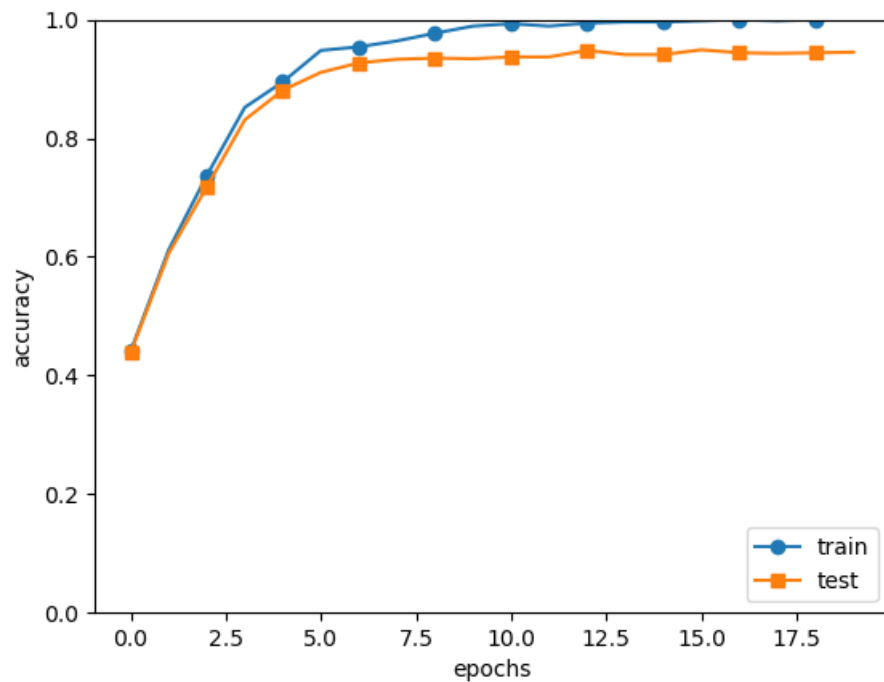
28x28, gray channel, 26 labels

Model : Convolutional Neural Network



Train&Test

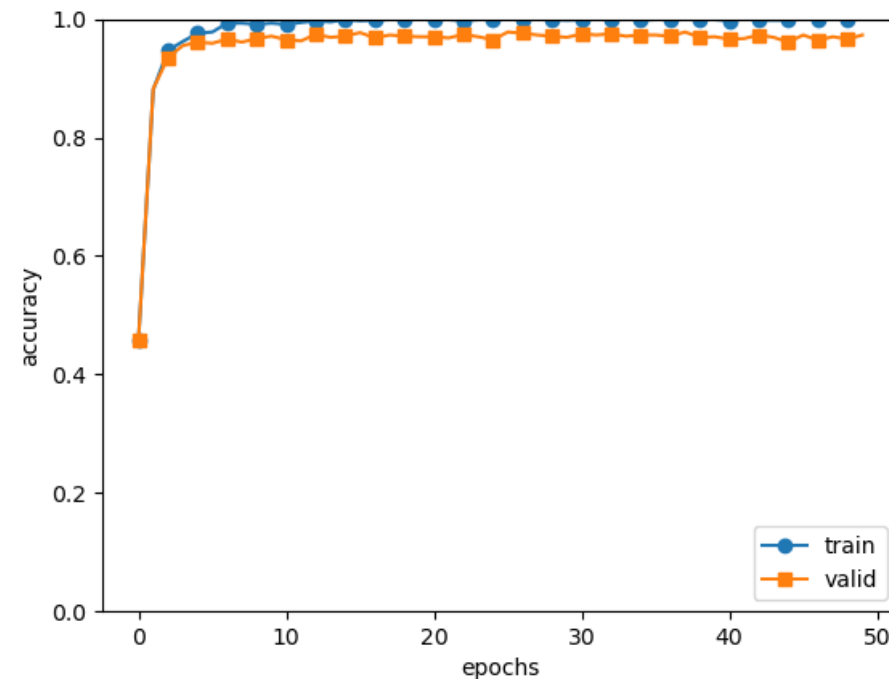
CPU (5000개 데이터, 20에폭)



time : 241.5752556324005

Test accuracy : 0.93

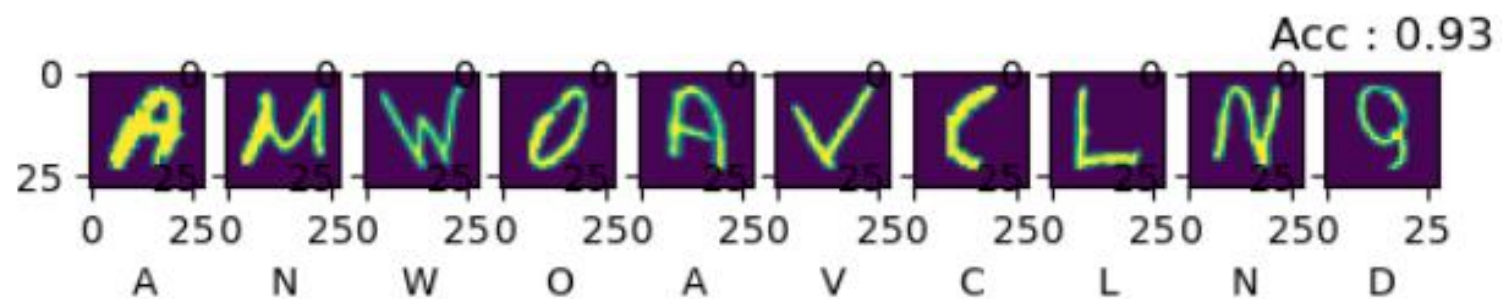
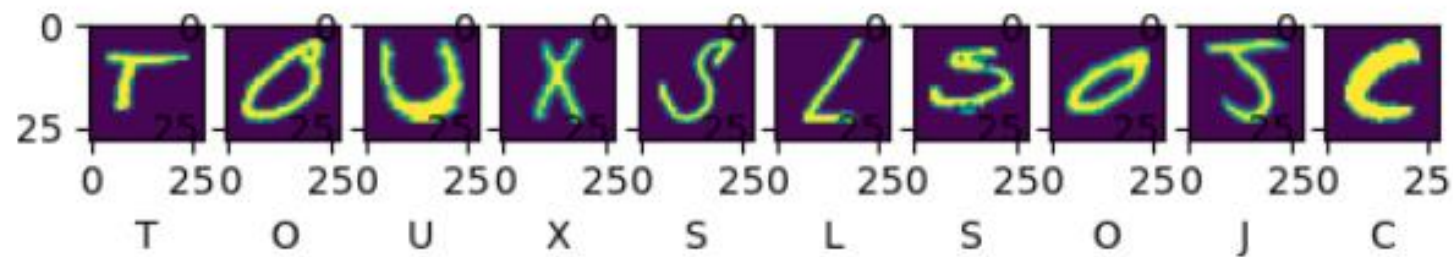
GPU(cupy, 20000개 데이터, 50에폭, 1660ti mobile)



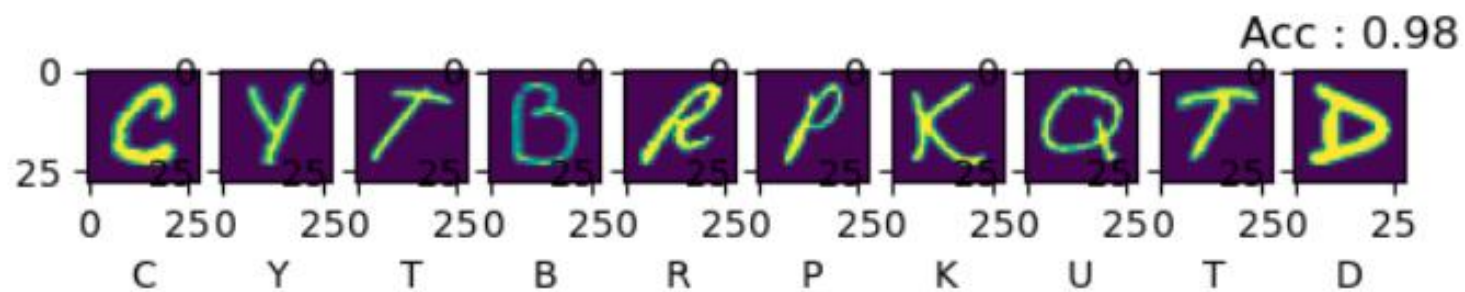
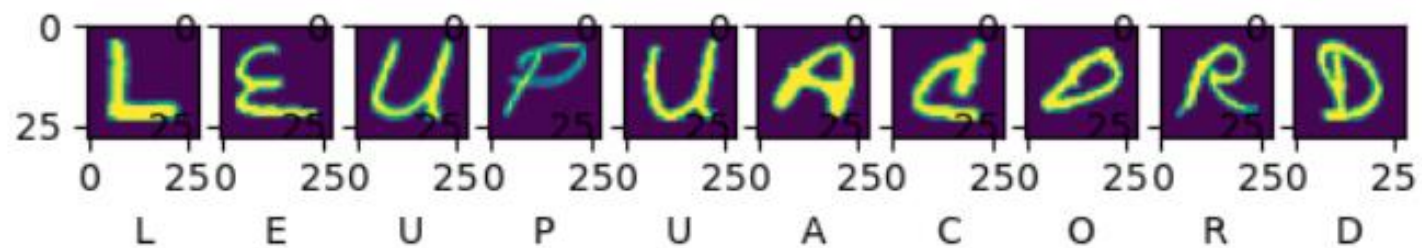
time : 238.91209602355957

Test accuracy : 0.98

Result(cpu)



Result(gpu)



End