MAIN2

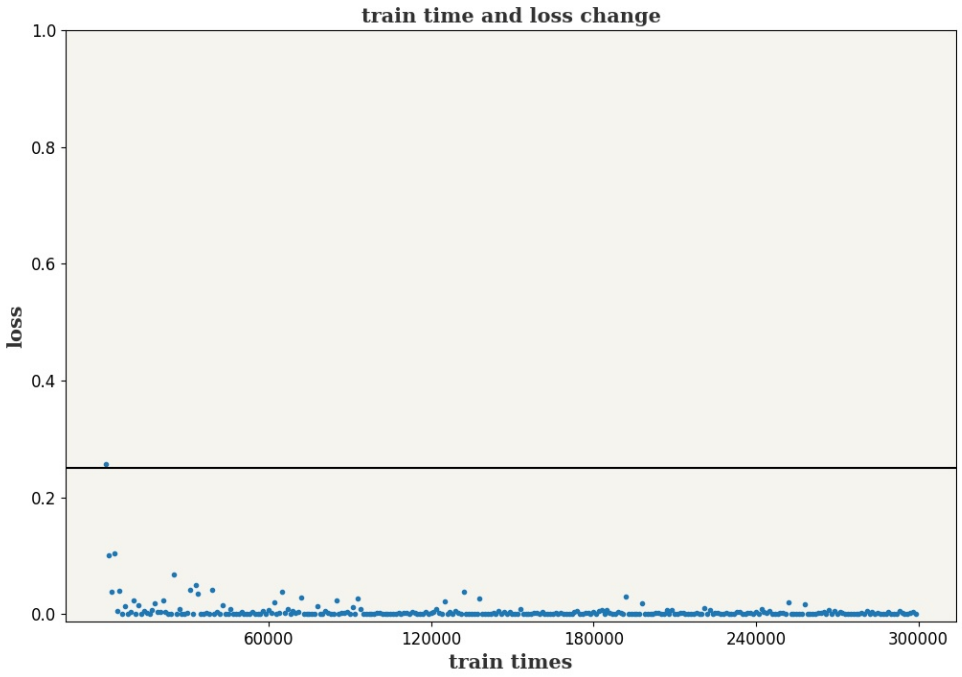
a neural network for discriminating the handwriting digits

1 structure of the net

using MNIST dataset,the configuration of the neural net as below:

- input:784(28×28)
- hidden layer1: 784×200
- output layer: 200×10
- loss function: BCELoss
- activation function:leaky relu

2 experiment result on MNIST



3 issues

3.1 UserWarning: The given NumPy array is not writeable, and PyTorch does not support non-writeable tensors.

solutions:

```
def read_sn3_pascalvincent_tensor(path: str, strict: bool = True) -> torch.Tensor:
    ......
    return torch.from_numpy(parsed.astype(m[2], copy=False)).view(*s)
```

remove copy=False in line 18

3.2

systemTool

use matplotlib to visualize the loss

main1

使用GAN生成0101模式的数据