

PyTorch neural network basics

Sequential block

```
# 回顾一下多层感知机
import torch
from torch import nn
from torch.nn import functional as F
net = nn.Sequential(nn.Linear(20,256),nn.ReLU(),nn.Linear(256,10))
x = torch.rand(2,20)
net(x)
```

Custom block

```
class MLP(nn.Module):
    def __init__(self):
        super().__init__()
        self.hidden = nn.Linear(20,256)
        self.out = nn.Linear(256,10)

    def forward(self, x):
        return self.out(F.relu(self.hidden(x)))

net = MLP()
x = torch.rand(2,20)
net(x)
'''
```

区别点：

灵活性：**nn.Sequential**更适合简单模型，直接按顺序定义；而自定义 **nn.Module** 则适合需要灵活控制前向传播逻辑的场景。

代码结构：**nn.Sequential**实现更加简洁；而自定义 **nn.Module** 需要显式定义 **forward** 方法，适合更复杂的网络设计。

'''