

# Pytorch Call Method Misused

## Context

Both `self.net()` and `self.net.forward()` can be used **to forward the input into the network in PyTorch**.

## Problem

In PyTorch, `self.net()` and `self.net.forward()` **are not identical**. The `self.net()` also deals **with all the register hooks**, which **would not be considered when calling the plain `.forward()`**.

## Solution

It is recommended **to use `self.net()` rather than `self.net.forward()`**.

## Existing Stage

## Effect

Model Training

Robustness

## Example

Python

```
### PyTorch
# 1. Load and normalize CIFAR10
# 2. Define a Convolutional Neural Network
def forward(self, x):
-   x = self.pool.forward(F.relu(self.conv1(x)))
+   x = self.pool(F.relu(self.conv1(x)))
+   x = self.pool(F.relu(self.conv2(x)))
    x = torch.flatten(x, 1) # flatten all dimensions except
batch
    x = F.relu(self.fc1(x))
    x = F.relu(self.fc2(x))
    x = self.fc3(x)
    return x
```

