

# Neural Nets with PyTorch

# Building the model

- PyTorch provides two approaches to building the structure of your model:
- Sequential Model: Allows you to build a model by stacking layers in a sequential order.
- Subclasses : Builds from python class that inherits from `nn.Module` and define your model architecture in the `__init__` and forward methods.

# PyTorch- Sequential Model

The Sequential function (similar to Keras) and initialized model object:

```
from torch import nn  
model = nn.Sequential()
```

# PyTorch- Sequential Model

```
from torch import nn

nn.Sequential(
    nn.Linear(3,4),
    # model.add(Dense(units=4, input_dim=3))

    nn.Sigmoid(),
    # model.add(Activation('sigmoid'))

    nn.Linear(4, 4),
    # model.add(Dense(units=4))

    nn.Sigmoid(),
    # model.add(Activation('sigmoid'))

    nn.Linear(4, 3),
    # model.add(Dense(units=3))

    nn.Softmax()
    # model.add(Activation('softmax'))
)
```