

【余談:Keras(tensorflow)の実装例】

ソースコードは以下のような感じ

```
input=Input((32,32,3),dtype='float')
conv1=Conv2D(32,3,padding='same',activation='relu')(input)
pool1=MaxPooling2D((2,2),padding='same')(conv1)
conv2=Conv2D(32,3,padding='same',activation='relu')(pool1)
pool2=MaxPooling2D((2,2),padding='same')(conv2)
conv3=Conv2D(32,3,padding='same',activation='relu')(pool2)
tran1=Conv2DTranspose(32,3, strides=2,padding='same',activation='relu')(conv3)
conv4=Conv2D(32,3,padding='same',activation='relu')(tran1)
tran2=Conv2DTranspose(32,3, strides=2,padding='same',activation='relu')(conv4)
output=Conv2D(3,3,padding='same',activation='relu')(tran2)
```

【余談:Pytorchの実装例】

ソースコードは以下のような感じ

```
def __init__(self):
    super().__init__()
    self.conv1=nn.Conv2d(3,32,3,padding=1)
    self.pool1=nn.MaxPool2d(2)
    self.conv2=nn.Conv2d(32,32,3,padding=1)
    self.pool2=nn.MaxPool2d(2)
    self.conv3=nn.Conv2d(32,32,3,padding=1)
    self.tran1=nn.ConvTranspose2d(32,32,3,stride=2,padding=1,output_padding=1)
    self.conv4=nn.Conv2d(32,32,3,padding=1)
    self.tran2=nn.ConvTranspose2d(32,32,3,stride=2,padding=1,output_padding=1)
    self.conv5=nn.Conv2d(32,3,3,padding=1)
def forward(self,x):
    c1=self.conv1(x)
    c1=F.relu(c1)
    p1=self.pool1(c1)
    c2=self.conv2(p1)
    c2=F.relu(c2)
    p2=self.pool2(c2)
    c3=self.conv3(p2)
    c3=F.relu(c3)
    t1=self.tran1(c3)
    t1=F.relu(t1)
    c4=self.conv4(t1)
    c4=F.relu(c4)
    t2=self.tran2(c4)
    t2=F.relu(t2)
    c5=self.conv5(t2)
    c5=F.relu(c5)
    return c5
```