

Coming in Spring 2025:

Deep Learning

Course #: BME 646/ECE 60146

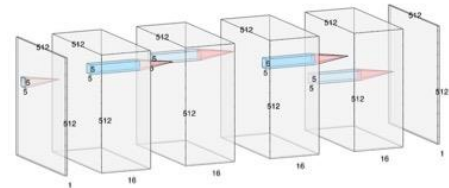
Instructors: Profs. Avi Kak and Charles Bouman

<https://engineering.purdue.edu/DeepLearn/>

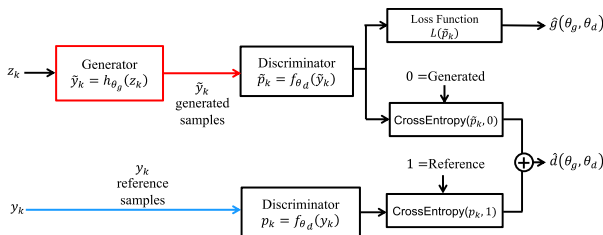
```
import torch.nn as nn
import torch.nn.functional as F

class Model(nn.Module):
    def __init__(self):
        super(Model, self).__init__()
        self.conv1 = nn.Conv2d(1, 20, 5)
        self.conv2 = nn.Conv2d(20, 20, 5)
    def forward(self, x):
        x = F.relu(self.conv1(x))
        return F.relu(self.conv2(x))
```

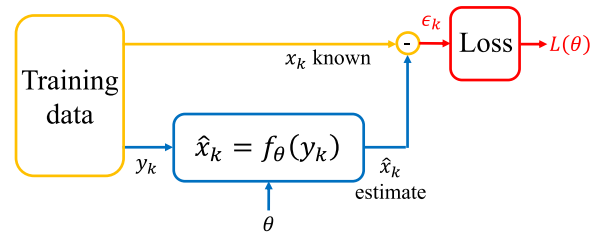
PyTorch Coding



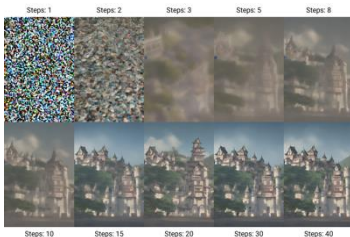
Convolutional Neural Networks



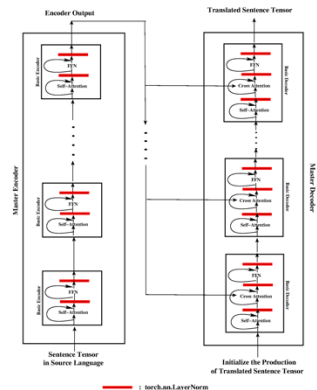
Generative Adversarial Networks



Machine Learning Theory



Generative Diffusion Models



Transformer Networks for LLMs