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```
! imports
import matplotlib.pyplot as plt
import matplotlib.patches as patches
import numpy as np
import os
import torch

from collections import Counter
from torch.utils.data import DataLoader
from tqdm import tqdm
import torch
import torch.nn as nn

config = [
    (32, 3, 1),
    (64, 3, 2),
    ["B", 1],
    (128, 3, 2),
    ["B", 2],
    (256, 3, 2),
    ["B", 8],
    (512, 3, 2),
    ["B", 8],
    (1024, 3, 2),
    ["B", 4], # to this point is Darknet-53

    (512, 1, 1),
    (1024, 3, 1),
    "S",
    (256, 1, 1),
    "U",
    (256, 1, 1),
    (512, 3, 1),
    "S",
    (128, 1, 1),
    "U",
    (128, 1, 1),
    (256, 3, 1),
    "S",
]

class CNMBlock(nn.Module):
    def __init__(self, in_channels, out_channels, bn_act=True, **kwargs):
        super(CNMBlock, self).__init__()
        self.conv = nn.Conv2d(in_channels, out_channels, bias=not bn_act,
                               **kwargs)
        # If BatchNorm layer(bn_act) is true, then bias is False
        self.bn = nn.BatchNorm2d(out_channels)
        self.leaky = nn.LeakyReLU(0.1)
```