[OK] Maps generated for data\_point99 -> training\_data/generated\_features (grid: 1024x1024)

[INFO] Using median grid size 512 as target for variable size model

[INFO] Found 100 base samples

[INFO] Generating 500 synthetic samples...

Traceback (most recent call last):

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/training\_enhanced.py", line 360, in <module>

train\_enhanced\_model(args.input, args.output,

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/training\_enhanced.py", line 186, in train\_enhanced\_model

synthetic\_generator = SyntheticDataGenerator(base\_dataset, num\_synthetic\_samples=num\_synthetic)

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/data\_augmentation.py", line 347, in \_\_init\_\_

self.\_generate\_synthetic\_data()

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/data\_augmentation.py", line 379, in \_generate\_synthetic\_data

combined\_X, combined\_Y = augment\_features(

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/data\_augmentation.py", line 65, in augment\_features

X, Y = random\_scale(X, Y, scale\_factor)

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/data\_augmentation.py", line 142, in random\_scale

X\_scaled[b, c] = F.interpolate(

RuntimeError: The expanded size of the tensor (512) must match the existing size (425) at non-singleton dimension 1. Target sizes: [512, 512]. Tensor sizes: [425, 425]

Traceback (most recent call last):

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/training\_enhanced.py", line 341, in <module>

train\_enhanced\_model(args.input, args.output,

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/training\_enhanced.py", line 169, in train\_enhanced\_model

synthetic\_generator = SyntheticDataGenerator(base\_dataset, num\_synthetic\_samples=num\_synthetic)

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/data\_augmentation.py", line 348, in \_\_init\_\_

self.\_generate\_synthetic\_data()

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/data\_augmentation.py", line 385, in \_generate\_synthetic\_data

X\_padded = F.pad(X, (0, pad\_w, 0, pad\_h), mode='reflect')

File "/usr/local/lib/python3.10/dist-packages/torch/nn/functional.py", line 5290, in pad

return torch.\_C.\_nn.pad(input, pad, mode, value)

RuntimeError: Argument #4: Padding size should be less than the corresponding input dimension, but got: padding (0, 256) at dimension 2 of input [3, 256, 256]

[INFO] Using synthetic data augmentation

/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/data\_augmentation.py:284: UserWarning: To copy construct from a tensor, it is recommended to use sourceTensor.detach().clone() or sourceTensor.detach().clone().requires\_grad\_(True), rather than torch.tensor(sourceTensor).

Y[b, 0] = torch.tensor(Y[b, 0] + hotspot\_intensity \* synthetic\_hotspot)

Traceback (most recent call last):

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/training\_enhanced.py", line 341, in <module>

train\_enhanced\_model(args.input, args.output,

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/training\_enhanced.py", line 227, in train\_enhanced\_model

for X, Y, norm\_factors in loader:

File "/usr/local/lib/python3.10/dist-packages/torch/utils/data/dataloader.py", line 734, in \_\_next\_\_

data = self.\_next\_data()

File "/usr/local/lib/python3.10/dist-packages/torch/utils/data/dataloader.py", line 790, in \_next\_data

data = self.\_dataset\_fetcher.fetch(index) # may raise StopIteration

File "/usr/local/lib/python3.10/dist-packages/torch/utils/data/\_utils/fetch.py", line 52, in fetch

data = [self.dataset[idx] for idx in possibly\_batched\_index]

File "/usr/local/lib/python3.10/dist-packages/torch/utils/data/\_utils/fetch.py", line 52, in <listcomp>

data = [self.dataset[idx] for idx in possibly\_batched\_index]

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/data\_augmentation.py", line 334, in \_\_getitem\_\_

X, Y = augment\_features(X, Y, p=0.7, augmentation\_level=self.augmentation\_level)

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/data\_augmentation.py", line 66, in augment\_features

X, Y = random\_scale(X, Y, scale\_factor)

File "/mnt/c/Users/janak/OneDrive/Desktop/Fall 2025/ML\_based\_IR\_drop\_pred Update/src/data\_augmentation.py", line 143, in random\_scale

X\_scaled[b, c] = F.interpolate(

RuntimeError: The expanded size of the tensor (512) must match the existing size (423) at non-singleton dimension 1. Target sizes: [512, 512]. Tensor sizes: [423, 423]