

top3_0.005_250

April 17, 2025

```
[3]: from tqdm import tqdm
import torch
import torch.nn as nn
import torch.optim as optim
from sklearn.metrics import accuracy_score, classification_report
import pandas as pd
from social_lstm_classifier import SocialLSTMClassifier

trajectory_features = ['Positionx', 'Positiony', 'Distance', 'Speed', 'Speed_
↳Change', 'Direction', 'Direction Change']

feature_combos = {
    # 'xy_2': ['Positionx', 'Positiony'],
    # 'xyd_3': ['Positionx', 'Positiony', 'Distance'],
    # 'xydsdc_7': ['Positionx', 'Positiony', 'Distance', 'Speed', 'Direction',
↳'Speed Change', 'Direction Change'],
    # 'xysd_4': ['Positionx', 'Positiony', 'Speed', 'Direction'],
    # 'xyds_4': ['Positionx', 'Positiony', 'Distance', 'Speed'],
    'xydd_4': ['Positionx', 'Positiony', 'Distance', 'Direction'],
    'xydsc_5': ['Positionx', 'Positiony', 'Distance', 'Speed', 'Speed Change'],
    # 'xyddc_5': ['Positionx', 'Positiony', 'Distance', 'Direction', 'Direction
↳Change'],
    # 'xys_3': ['Positionx', 'Positiony', 'Speed'],
    'xydi_3': ['Positionx', 'Positiony', 'Direction'],
    # 'xysc_4': ['Positionx', 'Positiony', 'Speed', 'Speed Change'],
    # 'xydc_4': ['Positionx', 'Positiony', 'Direction', 'Direction Change']
}

train_data = torch.load("./train_social_lstm_full.pt")
test_data = torch.load("./test_social_lstm_full.pt")

results = []

def run_experiment(feature_set, name):
    input_size = len(feature_set)
    index_map = [trajectory_features.index(f) for f in feature_set]
```

```

model = SocialLSTMClassifier(input_size=input_size)
criterion = nn.CrossEntropyLoss()
optimizer = optim.Adam(model.parameters(), lr=0.005)
epochs = 250

model.train()
for epoch in range(epochs):
    total_loss = 0.0
    for sample in tqdm(train_data, desc=f"Epoch {epoch+1}/{epochs}"):
        # traj = sample['trajectory'][:, index_map].unsqueeze(1)
        # neighbors = sample['neighbors'][:, :, index_map]
        traj = sample['trajectory'][:, index_map] # [T, 1, D]
        neighbors = [frame[:, index_map] for frame in sample['neighbors']]
        ↪ # list[T][N_i, D]

        mask = sample['neighbor_mask']
        label = torch.tensor([int(sample['cluster']) - 1], dtype=torch.long)

        optimizer.zero_grad()
        logits = model(traj, neighbors, mask)
        loss = criterion(logits, label)
        loss.backward()
        optimizer.step()

        total_loss += loss.item()

    avg_loss = total_loss / len(train_data)
    print(f"\n[Feature Set: {name}] Epoch [{epoch+1}/{epochs}] - Avg Loss:
    ↪ {avg_loss:.4f}")

# model.eval()
# y_true = []
# y_pred = []
# with torch.no_grad():
#     for sample in tqdm(train_data, desc=f"Epoch {epoch+1}/{epochs}"):
#         # traj = sample['trajectory'][:, index_map].unsqueeze(1)
#         # neighbors = sample['neighbors'][:, :, index_map]
#         traj = sample['trajectory'][:, index_map] # [T, 1, D]
#         neighbors = [frame[:, index_map] for frame in
        ↪ sample['neighbors']] # list[T][N_i, D]
#         mask = sample['neighbor_mask']
#         label = int(sample['cluster']) - 1
#         logits = model(traj, neighbors, mask)
#         pred = logits.argmax(dim=1).item()
#         y_true.append(label)
#         y_pred.append(pred)

```

```

model.eval()
y_true = []
y_pred = []
with torch.no_grad():
    for sample in tqdm(test_data, desc=f"[Eval] {name}"):
        traj = sample['trajectory'][:, index_map]
        neighbors = [frame[:, index_map] for frame in sample['neighbors']]
        mask = sample['neighbor_mask']
        label = int(sample['cluster']) - 1
        logits = model(traj, neighbors, mask)
        pred = logits.argmax(dim=1).item()
        y_true.append(label)
        y_pred.append(pred)

acc = accuracy_score(y_true, y_pred)
clf_report = classification_report(y_true, y_pred, output_dict=True)
results.append({
    "Feature_Set": name,
    "Accuracy": acc,
    "Macro_F1": clf_report['macro avg']['f1-score'],
    "Weighted_F1": clf_report['weighted avg']['f1-score']
})

for name, feats in feature_combos.items():
    run_experiment(feats, name)

```

/var/folders/nt/7f1y5h8s6qd2mh1ypgjkgbpw0000gn/T/ipykernel_72854/4079394881.py:26: FutureWarning: You are using `torch.load` with `weights_only=False` (the current default value), which uses the default pickle module implicitly. It is possible to construct malicious pickle data which will execute arbitrary code during unpickling (See <https://github.com/pytorch/pytorch/blob/main/SECURITY.md#untrusted-models> for more details). In a future release, the default value for `weights_only` will be flipped to `True`. This limits the functions that could be executed during unpickling. Arbitrary objects will no longer be allowed to be loaded via this mode unless they are explicitly allowlisted by the user via `torch.serialization.add_safe_globals`. We recommend you start setting `weights_only=True` for any use case where you don't have full control of the loaded file. Please open an issue on GitHub for any issues related to this experimental feature.

```

train_data = torch.load("./train_social_lstm_full.pt")
/var/folders/nt/7f1y5h8s6qd2mh1ypgjkgbpw0000gn/T/ipykernel_72854/4079394881.py:27: FutureWarning: You are using `torch.load` with `weights_only=False` (the
current default value), which uses the default pickle module implicitly. It is
possible to construct malicious pickle data which will execute arbitrary code
during unpickling (See

```

<https://github.com/pytorch/pytorch/blob/main/SECURITY.md#untrusted-models> for more details). In a future release, the default value for `weights_only` will be flipped to `True`. This limits the functions that could be executed during unpickling. Arbitrary objects will no longer be allowed to be loaded via this mode unless they are explicitly allowlisted by the user via `torch.serialization.add_safe_globals`. We recommend you start setting `weights_only=True` for any use case where you don't have full control of the loaded file. Please open an issue on GitHub for any issues related to this experimental feature.

```
test_data = torch.load("./test_social_lstm_full.pt")
Epoch 1/250: 100%|          | 570/570 [00:03<00:00, 169.47it/s]
```

[Feature Set: xydd_4] Epoch [1/250] - Avg Loss: 0.6850

```
Epoch 2/250: 100%|          | 570/570 [00:03<00:00, 176.10it/s]
```

[Feature Set: xydd_4] Epoch [2/250] - Avg Loss: 0.6710

```
Epoch 3/250: 100%|          | 570/570 [00:03<00:00, 179.21it/s]
```

[Feature Set: xydd_4] Epoch [3/250] - Avg Loss: 0.6726

```
Epoch 4/250: 100%|          | 570/570 [00:03<00:00, 179.82it/s]
```

[Feature Set: xydd_4] Epoch [4/250] - Avg Loss: 0.6733

```
Epoch 5/250: 100%|          | 570/570 [00:03<00:00, 181.39it/s]
```

[Feature Set: xydd_4] Epoch [5/250] - Avg Loss: 0.6751

```
Epoch 6/250: 100%|          | 570/570 [00:03<00:00, 180.27it/s]
```

[Feature Set: xydd_4] Epoch [6/250] - Avg Loss: 0.6679

```
Epoch 7/250: 100%|          | 570/570 [00:03<00:00, 179.95it/s]
```

[Feature Set: xydd_4] Epoch [7/250] - Avg Loss: 0.6699

```
Epoch 8/250: 100%|          | 570/570 [00:03<00:00, 182.65it/s]
```

[Feature Set: xydd_4] Epoch [8/250] - Avg Loss: 0.6611

```
Epoch 9/250: 100%|          | 570/570 [00:03<00:00, 180.78it/s]
```

[Feature Set: xydd_4] Epoch [9/250] - Avg Loss: 0.6527

```
Epoch 10/250: 100%|          | 570/570 [00:03<00:00, 182.28it/s]
```

[Feature Set: xydd_4] Epoch [10/250] - Avg Loss: 0.6572
Epoch 11/250: 100%| | 570/570 [00:03<00:00, 181.02it/s]

[Feature Set: xydd_4] Epoch [11/250] - Avg Loss: 0.6501
Epoch 12/250: 100%| | 570/570 [00:03<00:00, 178.17it/s]

[Feature Set: xydd_4] Epoch [12/250] - Avg Loss: 0.6376
Epoch 13/250: 100%| | 570/570 [00:03<00:00, 181.96it/s]

[Feature Set: xydd_4] Epoch [13/250] - Avg Loss: 0.6353
Epoch 14/250: 100%| | 570/570 [00:03<00:00, 180.33it/s]

[Feature Set: xydd_4] Epoch [14/250] - Avg Loss: 0.6223
Epoch 15/250: 100%| | 570/570 [00:03<00:00, 182.05it/s]

[Feature Set: xydd_4] Epoch [15/250] - Avg Loss: 0.6281
Epoch 16/250: 100%| | 570/570 [00:03<00:00, 179.35it/s]

[Feature Set: xydd_4] Epoch [16/250] - Avg Loss: 0.6300
Epoch 17/250: 100%| | 570/570 [00:03<00:00, 180.54it/s]

[Feature Set: xydd_4] Epoch [17/250] - Avg Loss: 0.5993
Epoch 18/250: 100%| | 570/570 [00:03<00:00, 181.66it/s]

[Feature Set: xydd_4] Epoch [18/250] - Avg Loss: 0.6011
Epoch 19/250: 100%| | 570/570 [00:03<00:00, 180.78it/s]

[Feature Set: xydd_4] Epoch [19/250] - Avg Loss: 0.6054
Epoch 20/250: 100%| | 570/570 [00:03<00:00, 180.65it/s]

[Feature Set: xydd_4] Epoch [20/250] - Avg Loss: 0.5928
Epoch 21/250: 100%| | 570/570 [00:03<00:00, 181.60it/s]

[Feature Set: xydd_4] Epoch [21/250] - Avg Loss: 0.5869
Epoch 22/250: 100%| | 570/570 [00:03<00:00, 172.78it/s]

[Feature Set: xydd_4] Epoch [22/250] - Avg Loss: 0.5751
Epoch 23/250: 100%| | 570/570 [00:03<00:00, 167.22it/s]

[Feature Set: xydd_4] Epoch [23/250] - Avg Loss: 0.5910
Epoch 24/250: 100%| | 570/570 [00:03<00:00, 174.30it/s]

[Feature Set: xydd_4] Epoch [24/250] - Avg Loss: 0.5505
Epoch 25/250: 100%| | 570/570 [00:03<00:00, 179.95it/s]

[Feature Set: xydd_4] Epoch [25/250] - Avg Loss: 0.5328
Epoch 26/250: 100%| | 570/570 [00:03<00:00, 179.42it/s]

[Feature Set: xydd_4] Epoch [26/250] - Avg Loss: 0.5231
Epoch 27/250: 100%| | 570/570 [00:03<00:00, 181.49it/s]

[Feature Set: xydd_4] Epoch [27/250] - Avg Loss: 0.4987
Epoch 28/250: 100%| | 570/570 [00:03<00:00, 179.78it/s]

[Feature Set: xydd_4] Epoch [28/250] - Avg Loss: 0.5212
Epoch 29/250: 100%| | 570/570 [00:03<00:00, 180.26it/s]

[Feature Set: xydd_4] Epoch [29/250] - Avg Loss: 0.5189
Epoch 30/250: 100%| | 570/570 [00:03<00:00, 181.57it/s]

[Feature Set: xydd_4] Epoch [30/250] - Avg Loss: 0.5317
Epoch 31/250: 100%| | 570/570 [00:03<00:00, 180.22it/s]

[Feature Set: xydd_4] Epoch [31/250] - Avg Loss: 0.5163
Epoch 32/250: 100%| | 570/570 [00:03<00:00, 179.63it/s]

[Feature Set: xydd_4] Epoch [32/250] - Avg Loss: 0.5094
Epoch 33/250: 100%| | 570/570 [00:03<00:00, 182.19it/s]

[Feature Set: xydd_4] Epoch [33/250] - Avg Loss: 0.4849
Epoch 34/250: 100%| | 570/570 [00:03<00:00, 180.53it/s]

[Feature Set: xydd_4] Epoch [34/250] - Avg Loss: 0.5367
Epoch 35/250: 100%| | 570/570 [00:03<00:00, 182.52it/s]

[Feature Set: xydd_4] Epoch [35/250] - Avg Loss: 0.4983
Epoch 36/250: 100%| | 570/570 [00:03<00:00, 179.75it/s]

[Feature Set: xydd_4] Epoch [36/250] - Avg Loss: 0.4391
Epoch 37/250: 100%| | 570/570 [00:03<00:00, 180.31it/s]

[Feature Set: xydd_4] Epoch [37/250] - Avg Loss: 0.5179
Epoch 38/250: 100%| | 570/570 [00:03<00:00, 181.63it/s]

[Feature Set: xydd_4] Epoch [38/250] - Avg Loss: 0.4852
Epoch 39/250: 100%| | 570/570 [00:03<00:00, 180.24it/s]

[Feature Set: xydd_4] Epoch [39/250] - Avg Loss: 0.4594
Epoch 40/250: 100%| | 570/570 [00:03<00:00, 182.19it/s]

[Feature Set: xydd_4] Epoch [40/250] - Avg Loss: 0.4465
Epoch 41/250: 100%| | 570/570 [00:03<00:00, 179.84it/s]

[Feature Set: xydd_4] Epoch [41/250] - Avg Loss: 0.5040
Epoch 42/250: 100%| | 570/570 [00:03<00:00, 180.46it/s]

[Feature Set: xydd_4] Epoch [42/250] - Avg Loss: 0.4695
Epoch 43/250: 100%| | 570/570 [00:03<00:00, 181.98it/s]

[Feature Set: xydd_4] Epoch [43/250] - Avg Loss: 0.4627
Epoch 44/250: 100%| | 570/570 [00:03<00:00, 166.76it/s]

[Feature Set: xydd_4] Epoch [44/250] - Avg Loss: 0.4477
Epoch 45/250: 100%| | 570/570 [00:03<00:00, 179.63it/s]

[Feature Set: xydd_4] Epoch [45/250] - Avg Loss: 0.4612
Epoch 46/250: 100%| | 570/570 [00:03<00:00, 181.78it/s]

[Feature Set: xydd_4] Epoch [46/250] - Avg Loss: 0.3996
Epoch 47/250: 100%| | 570/570 [00:03<00:00, 180.36it/s]

[Feature Set: xydd_4] Epoch [47/250] - Avg Loss: 0.4109
Epoch 48/250: 100%| | 570/570 [00:03<00:00, 166.33it/s]

[Feature Set: xydd_4] Epoch [48/250] - Avg Loss: 0.4251
Epoch 49/250: 100%| | 570/570 [00:03<00:00, 175.64it/s]

[Feature Set: xydd_4] Epoch [49/250] - Avg Loss: 0.4137
Epoch 50/250: 100%| | 570/570 [00:03<00:00, 181.14it/s]

[Feature Set: xydd_4] Epoch [50/250] - Avg Loss: 0.3789
Epoch 51/250: 100%| | 570/570 [00:03<00:00, 180.69it/s]

[Feature Set: xydd_4] Epoch [51/250] - Avg Loss: 0.4397
Epoch 52/250: 100%| | 570/570 [00:03<00:00, 181.79it/s]

[Feature Set: xydd_4] Epoch [52/250] - Avg Loss: 0.4612
Epoch 53/250: 100%| | 570/570 [00:03<00:00, 180.67it/s]

[Feature Set: xydd_4] Epoch [53/250] - Avg Loss: 0.3845
Epoch 54/250: 100%| | 570/570 [00:03<00:00, 179.71it/s]

[Feature Set: xydd_4] Epoch [54/250] - Avg Loss: 0.3657
Epoch 55/250: 100%| | 570/570 [00:03<00:00, 182.35it/s]

[Feature Set: xydd_4] Epoch [55/250] - Avg Loss: 0.3716
Epoch 56/250: 100%| | 570/570 [00:03<00:00, 180.52it/s]

[Feature Set: xydd_4] Epoch [56/250] - Avg Loss: 0.3678
Epoch 57/250: 100%| | 570/570 [00:03<00:00, 181.74it/s]

[Feature Set: xydd_4] Epoch [57/250] - Avg Loss: 0.3975
Epoch 58/250: 100%| | 570/570 [00:03<00:00, 179.60it/s]

[Feature Set: xydd_4] Epoch [58/250] - Avg Loss: 0.3772
Epoch 59/250: 100%| | 570/570 [00:03<00:00, 180.16it/s]

[Feature Set: xydd_4] Epoch [59/250] - Avg Loss: 0.4176
Epoch 60/250: 100%| | 570/570 [00:03<00:00, 181.89it/s]

[Feature Set: xydd_4] Epoch [60/250] - Avg Loss: 0.3677
Epoch 61/250: 100%| | 570/570 [00:03<00:00, 180.37it/s]

[Feature Set: xydd_4] Epoch [61/250] - Avg Loss: 0.3521
Epoch 62/250: 100%| | 570/570 [00:03<00:00, 176.01it/s]

[Feature Set: xydd_4] Epoch [62/250] - Avg Loss: 0.3612
Epoch 63/250: 100%| | 570/570 [00:03<00:00, 181.69it/s]

[Feature Set: xydd_4] Epoch [63/250] - Avg Loss: 0.3818
Epoch 64/250: 100%| | 570/570 [00:03<00:00, 180.31it/s]

[Feature Set: xydd_4] Epoch [64/250] - Avg Loss: 0.3291
Epoch 65/250: 100%| | 570/570 [00:03<00:00, 179.97it/s]

[Feature Set: xydd_4] Epoch [65/250] - Avg Loss: 0.3511
Epoch 66/250: 100%| | 570/570 [00:03<00:00, 182.14it/s]

[Feature Set: xydd_4] Epoch [66/250] - Avg Loss: 0.3639
Epoch 67/250: 100%| | 570/570 [00:03<00:00, 179.60it/s]

[Feature Set: xydd_4] Epoch [67/250] - Avg Loss: 0.3760
Epoch 68/250: 100%| | 570/570 [00:03<00:00, 180.73it/s]

[Feature Set: xydd_4] Epoch [68/250] - Avg Loss: 0.3337
Epoch 69/250: 100%| | 570/570 [00:03<00:00, 181.64it/s]

[Feature Set: xydd_4] Epoch [69/250] - Avg Loss: 0.3501
Epoch 70/250: 100%| | 570/570 [00:03<00:00, 180.41it/s]

[Feature Set: xydd_4] Epoch [70/250] - Avg Loss: 0.4128
Epoch 71/250: 100%| | 570/570 [00:03<00:00, 181.61it/s]

[Feature Set: xydd_4] Epoch [71/250] - Avg Loss: 0.3634
Epoch 72/250: 100%| | 570/570 [00:03<00:00, 180.69it/s]

[Feature Set: xydd_4] Epoch [72/250] - Avg Loss: 0.3190
Epoch 73/250: 100%| | 570/570 [00:03<00:00, 180.44it/s]

[Feature Set: xydd_4] Epoch [73/250] - Avg Loss: 0.3198
Epoch 74/250: 100%| | 570/570 [00:03<00:00, 182.06it/s]

[Feature Set: xydd_4] Epoch [74/250] - Avg Loss: 0.4069
Epoch 75/250: 100%| | 570/570 [00:03<00:00, 180.69it/s]

[Feature Set: xydd_4] Epoch [75/250] - Avg Loss: 0.3320
Epoch 76/250: 100%| | 570/570 [00:03<00:00, 179.48it/s]

[Feature Set: xydd_4] Epoch [76/250] - Avg Loss: 0.3064
Epoch 77/250: 100%| | 570/570 [00:03<00:00, 181.67it/s]

[Feature Set: xydd_4] Epoch [77/250] - Avg Loss: 0.3249
Epoch 78/250: 100%| | 570/570 [00:03<00:00, 179.07it/s]

[Feature Set: xydd_4] Epoch [78/250] - Avg Loss: 0.3028
Epoch 79/250: 100%| | 570/570 [00:03<00:00, 180.34it/s]

[Feature Set: xydd_4] Epoch [79/250] - Avg Loss: 0.3514
Epoch 80/250: 100%| | 570/570 [00:03<00:00, 181.96it/s]

[Feature Set: xydd_4] Epoch [80/250] - Avg Loss: 0.3251
Epoch 81/250: 100%| | 570/570 [00:03<00:00, 180.11it/s]

[Feature Set: xydd_4] Epoch [81/250] - Avg Loss: 0.3270
Epoch 82/250: 100%| | 570/570 [00:03<00:00, 179.98it/s]

[Feature Set: xydd_4] Epoch [82/250] - Avg Loss: 0.4268
Epoch 83/250: 100%| | 570/570 [00:03<00:00, 180.78it/s]

[Feature Set: xydd_4] Epoch [83/250] - Avg Loss: 0.3144
Epoch 84/250: 100%| | 570/570 [00:03<00:00, 180.07it/s]

[Feature Set: xydd_4] Epoch [84/250] - Avg Loss: 0.2964
Epoch 85/250: 100%| | 570/570 [00:03<00:00, 169.64it/s]

[Feature Set: xydd_4] Epoch [85/250] - Avg Loss: 0.2656
Epoch 86/250: 100%| | 570/570 [00:03<00:00, 171.00it/s]

[Feature Set: xydd_4] Epoch [86/250] - Avg Loss: 0.4746
Epoch 87/250: 100%| | 570/570 [00:04<00:00, 127.91it/s]

[Feature Set: xydd_4] Epoch [87/250] - Avg Loss: 0.3138
Epoch 88/250: 100%| | 570/570 [00:03<00:00, 179.67it/s]

[Feature Set: xydd_4] Epoch [88/250] - Avg Loss: 0.3406
Epoch 89/250: 100%| | 570/570 [00:03<00:00, 171.16it/s]

[Feature Set: xydd_4] Epoch [89/250] - Avg Loss: 0.3519
Epoch 90/250: 100%| | 570/570 [00:03<00:00, 176.89it/s]

[Feature Set: xydd_4] Epoch [90/250] - Avg Loss: 0.2621
Epoch 91/250: 100%| | 570/570 [00:03<00:00, 179.23it/s]

[Feature Set: xydd_4] Epoch [91/250] - Avg Loss: 0.2922
Epoch 92/250: 100%| | 570/570 [00:03<00:00, 179.97it/s]

[Feature Set: xydd_4] Epoch [92/250] - Avg Loss: 0.4464
Epoch 93/250: 100%| | 570/570 [00:03<00:00, 179.01it/s]

[Feature Set: xydd_4] Epoch [93/250] - Avg Loss: 0.3079
Epoch 94/250: 100%| | 570/570 [00:03<00:00, 179.36it/s]

[Feature Set: xydd_4] Epoch [94/250] - Avg Loss: 0.3327
Epoch 95/250: 100%| | 570/570 [00:03<00:00, 179.34it/s]

[Feature Set: xydd_4] Epoch [95/250] - Avg Loss: 0.3399
Epoch 96/250: 100%| | 570/570 [00:03<00:00, 180.93it/s]

[Feature Set: xydd_4] Epoch [96/250] - Avg Loss: 0.2815
Epoch 97/250: 100%| | 570/570 [00:03<00:00, 179.45it/s]

[Feature Set: xydd_4] Epoch [97/250] - Avg Loss: 0.3233
Epoch 98/250: 100%| | 570/570 [00:03<00:00, 181.16it/s]

[Feature Set: xydd_4] Epoch [98/250] - Avg Loss: 0.3316
Epoch 99/250: 100%| | 570/570 [00:03<00:00, 179.25it/s]

[Feature Set: xydd_4] Epoch [99/250] - Avg Loss: 0.3258
Epoch 100/250: 100%| | 570/570 [00:03<00:00, 181.45it/s]

[Feature Set: xydd_4] Epoch [100/250] - Avg Loss: 0.3200
Epoch 101/250: 100%| | 570/570 [00:03<00:00, 179.58it/s]

[Feature Set: xydd_4] Epoch [101/250] - Avg Loss: 0.2713
Epoch 102/250: 100%| | 570/570 [00:03<00:00, 179.37it/s]

[Feature Set: xydd_4] Epoch [102/250] - Avg Loss: 0.4170
Epoch 103/250: 100%| | 570/570 [00:03<00:00, 179.56it/s]

[Feature Set: xydd_4] Epoch [103/250] - Avg Loss: 0.2930
Epoch 104/250: 100%| | 570/570 [00:03<00:00, 180.42it/s]

[Feature Set: xydd_4] Epoch [104/250] - Avg Loss: 0.3301
Epoch 105/250: 100%| | 570/570 [00:03<00:00, 181.97it/s]

[Feature Set: xydd_4] Epoch [105/250] - Avg Loss: 0.3073
Epoch 106/250: 100%| | 570/570 [00:03<00:00, 179.72it/s]

[Feature Set: xydd_4] Epoch [106/250] - Avg Loss: 0.2453
Epoch 107/250: 100%| | 570/570 [00:03<00:00, 180.92it/s]

[Feature Set: xydd_4] Epoch [107/250] - Avg Loss: 0.2691
Epoch 108/250: 100%| | 570/570 [00:03<00:00, 180.31it/s]

[Feature Set: xydd_4] Epoch [108/250] - Avg Loss: 0.3890
Epoch 109/250: 100%| | 570/570 [00:03<00:00, 182.38it/s]

[Feature Set: xydd_4] Epoch [109/250] - Avg Loss: 0.2783
Epoch 110/250: 100%| | 570/570 [00:03<00:00, 180.79it/s]

[Feature Set: xydd_4] Epoch [110/250] - Avg Loss: 0.3358
Epoch 111/250: 100%| | 570/570 [00:03<00:00, 180.29it/s]

[Feature Set: xydd_4] Epoch [111/250] - Avg Loss: 0.2544
Epoch 112/250: 100%| | 570/570 [00:03<00:00, 179.84it/s]

[Feature Set: xydd_4] Epoch [112/250] - Avg Loss: 0.2928
Epoch 113/250: 100%| | 570/570 [00:03<00:00, 182.01it/s]

[Feature Set: xydd_4] Epoch [113/250] - Avg Loss: 0.3254
Epoch 114/250: 100%| | 570/570 [00:03<00:00, 180.51it/s]

[Feature Set: xydd_4] Epoch [114/250] - Avg Loss: 0.2471
Epoch 115/250: 100%| | 570/570 [00:03<00:00, 180.09it/s]

[Feature Set: xydd_4] Epoch [115/250] - Avg Loss: 0.3059
Epoch 116/250: 100%| | 570/570 [00:03<00:00, 180.84it/s]

[Feature Set: xydd_4] Epoch [116/250] - Avg Loss: 0.2854
Epoch 117/250: 100%| | 570/570 [00:03<00:00, 179.79it/s]

[Feature Set: xydd_4] Epoch [117/250] - Avg Loss: 0.2700
Epoch 118/250: 100%| | 570/570 [00:03<00:00, 180.06it/s]

[Feature Set: xydd_4] Epoch [118/250] - Avg Loss: 0.3339
Epoch 119/250: 100%| | 570/570 [00:03<00:00, 173.54it/s]

[Feature Set: xydd_4] Epoch [119/250] - Avg Loss: 0.2372
Epoch 120/250: 100%| | 570/570 [00:03<00:00, 178.09it/s]

[Feature Set: xydd_4] Epoch [120/250] - Avg Loss: 0.2845
Epoch 121/250: 100%| | 570/570 [00:03<00:00, 178.90it/s]

[Feature Set: xydd_4] Epoch [121/250] - Avg Loss: 0.3177
Epoch 122/250: 100%| | 570/570 [00:03<00:00, 181.31it/s]

[Feature Set: xydd_4] Epoch [122/250] - Avg Loss: 0.2316
Epoch 123/250: 100%| | 570/570 [00:03<00:00, 179.68it/s]

[Feature Set: xydd_4] Epoch [123/250] - Avg Loss: 0.2359
Epoch 124/250: 100%| | 570/570 [00:03<00:00, 176.69it/s]

[Feature Set: xydd_4] Epoch [124/250] - Avg Loss: 0.3006
Epoch 125/250: 100%| | 570/570 [00:03<00:00, 178.18it/s]

[Feature Set: xydd_4] Epoch [125/250] - Avg Loss: 0.2599
Epoch 126/250: 100%| | 570/570 [00:03<00:00, 182.02it/s]

[Feature Set: xydd_4] Epoch [126/250] - Avg Loss: 0.2432
Epoch 127/250: 100%| | 570/570 [00:03<00:00, 180.34it/s]

[Feature Set: xydd_4] Epoch [127/250] - Avg Loss: 0.3317
Epoch 128/250: 100%| | 570/570 [00:03<00:00, 181.41it/s]

[Feature Set: xydd_4] Epoch [128/250] - Avg Loss: 0.3292
Epoch 129/250: 100%| | 570/570 [00:03<00:00, 180.05it/s]

[Feature Set: xydd_4] Epoch [129/250] - Avg Loss: 0.2653
Epoch 130/250: 100%| | 570/570 [00:03<00:00, 180.24it/s]

[Feature Set: xydd_4] Epoch [130/250] - Avg Loss: 0.2187
Epoch 131/250: 100%| | 570/570 [00:03<00:00, 181.63it/s]

[Feature Set: xydd_4] Epoch [131/250] - Avg Loss: 0.2919
Epoch 132/250: 100%| | 570/570 [00:03<00:00, 179.81it/s]

[Feature Set: xydd_4] Epoch [132/250] - Avg Loss: 0.2828
Epoch 133/250: 100%| | 570/570 [00:03<00:00, 180.33it/s]

[Feature Set: xydd_4] Epoch [133/250] - Avg Loss: 0.1985
Epoch 134/250: 100%| | 570/570 [00:03<00:00, 181.43it/s]

[Feature Set: xydd_4] Epoch [134/250] - Avg Loss: 0.2776
Epoch 135/250: 100%| | 570/570 [00:03<00:00, 179.92it/s]

[Feature Set: xydd_4] Epoch [135/250] - Avg Loss: 0.2333
Epoch 136/250: 100%| | 570/570 [00:03<00:00, 181.83it/s]

[Feature Set: xydd_4] Epoch [136/250] - Avg Loss: 0.3358
Epoch 137/250: 100%| | 570/570 [00:03<00:00, 179.62it/s]

[Feature Set: xydd_4] Epoch [137/250] - Avg Loss: 0.2817
Epoch 138/250: 100%| | 570/570 [00:03<00:00, 180.17it/s]

[Feature Set: xydd_4] Epoch [138/250] - Avg Loss: 0.2079
Epoch 139/250: 100%| | 570/570 [00:03<00:00, 182.00it/s]

[Feature Set: xydd_4] Epoch [139/250] - Avg Loss: 0.2481
Epoch 140/250: 100%| | 570/570 [00:03<00:00, 179.22it/s]

[Feature Set: xydd_4] Epoch [140/250] - Avg Loss: 0.2455
Epoch 141/250: 100%| | 570/570 [00:03<00:00, 169.22it/s]

[Feature Set: xydd_4] Epoch [141/250] - Avg Loss: 0.3038
Epoch 142/250: 100%| | 570/570 [00:03<00:00, 176.45it/s]

[Feature Set: xydd_4] Epoch [142/250] - Avg Loss: 0.2237
Epoch 143/250: 100%| | 570/570 [00:03<00:00, 176.49it/s]

[Feature Set: xydd_4] Epoch [143/250] - Avg Loss: 0.2518
Epoch 144/250: 100%| | 570/570 [00:03<00:00, 178.12it/s]

[Feature Set: xydd_4] Epoch [144/250] - Avg Loss: 0.2493
Epoch 145/250: 100%| | 570/570 [00:03<00:00, 180.41it/s]

[Feature Set: xydd_4] Epoch [145/250] - Avg Loss: 0.3152
Epoch 146/250: 100%| | 570/570 [00:03<00:00, 179.37it/s]

[Feature Set: xydd_4] Epoch [146/250] - Avg Loss: 0.2462
Epoch 147/250: 100%| | 570/570 [00:03<00:00, 179.60it/s]

[Feature Set: xydd_4] Epoch [147/250] - Avg Loss: 0.1996
Epoch 148/250: 100%| | 570/570 [00:03<00:00, 180.87it/s]

[Feature Set: xydd_4] Epoch [148/250] - Avg Loss: 0.2182
Epoch 149/250: 100%| | 570/570 [00:03<00:00, 179.17it/s]

[Feature Set: xydd_4] Epoch [149/250] - Avg Loss: 0.2116
Epoch 150/250: 100%| | 570/570 [00:03<00:00, 176.91it/s]

[Feature Set: xydd_4] Epoch [150/250] - Avg Loss: 0.3099
Epoch 151/250: 100%| | 570/570 [00:03<00:00, 180.88it/s]

[Feature Set: xydd_4] Epoch [151/250] - Avg Loss: 0.2968
Epoch 152/250: 100%| | 570/570 [00:03<00:00, 179.65it/s]

[Feature Set: xydd_4] Epoch [152/250] - Avg Loss: 0.2356
Epoch 153/250: 100%| | 570/570 [00:03<00:00, 178.91it/s]

[Feature Set: xydd_4] Epoch [153/250] - Avg Loss: 0.3239
Epoch 154/250: 100%| | 570/570 [00:03<00:00, 180.89it/s]

[Feature Set: xydd_4] Epoch [154/250] - Avg Loss: 0.2576
Epoch 155/250: 100%| | 570/570 [00:03<00:00, 179.17it/s]

[Feature Set: xydd_4] Epoch [155/250] - Avg Loss: 0.2584
Epoch 156/250: 100%| | 570/570 [00:03<00:00, 181.28it/s]

[Feature Set: xydd_4] Epoch [156/250] - Avg Loss: 0.2186
Epoch 157/250: 100%| | 570/570 [00:03<00:00, 178.94it/s]

[Feature Set: xydd_4] Epoch [157/250] - Avg Loss: 0.3269
Epoch 158/250: 100%| | 570/570 [00:03<00:00, 179.47it/s]

[Feature Set: xydd_4] Epoch [158/250] - Avg Loss: 0.3277
Epoch 159/250: 100%| | 570/570 [00:03<00:00, 181.00it/s]

[Feature Set: xydd_4] Epoch [159/250] - Avg Loss: 0.1872
Epoch 160/250: 100%| | 570/570 [00:03<00:00, 179.56it/s]

[Feature Set: xydd_4] Epoch [160/250] - Avg Loss: 0.2049
Epoch 161/250: 100%| | 570/570 [00:03<00:00, 179.01it/s]

[Feature Set: xydd_4] Epoch [161/250] - Avg Loss: 0.2121
Epoch 162/250: 100%| | 570/570 [00:03<00:00, 180.87it/s]

[Feature Set: xydd_4] Epoch [162/250] - Avg Loss: 0.2097
Epoch 163/250: 100%| | 570/570 [00:03<00:00, 180.19it/s]

[Feature Set: xydd_4] Epoch [163/250] - Avg Loss: 0.4586
Epoch 164/250: 100%| | 570/570 [00:03<00:00, 179.61it/s]

[Feature Set: xydd_4] Epoch [164/250] - Avg Loss: 0.2251
Epoch 165/250: 100%| | 570/570 [00:03<00:00, 180.36it/s]

[Feature Set: xydd_4] Epoch [165/250] - Avg Loss: 0.2522
Epoch 166/250: 100%| | 570/570 [00:03<00:00, 179.58it/s]

[Feature Set: xydd_4] Epoch [166/250] - Avg Loss: 0.3075
Epoch 167/250: 100%| | 570/570 [00:03<00:00, 181.28it/s]

[Feature Set: xydd_4] Epoch [167/250] - Avg Loss: 0.2667
Epoch 168/250: 100%| | 570/570 [00:03<00:00, 179.67it/s]

[Feature Set: xydd_4] Epoch [168/250] - Avg Loss: 0.2576
Epoch 169/250: 100%| | 570/570 [00:03<00:00, 180.38it/s]

[Feature Set: xydd_4] Epoch [169/250] - Avg Loss: 0.2428
Epoch 170/250: 100%| | 570/570 [00:03<00:00, 180.11it/s]

[Feature Set: xydd_4] Epoch [170/250] - Avg Loss: 0.2030
Epoch 171/250: 100%| | 570/570 [00:03<00:00, 179.64it/s]

[Feature Set: xydd_4] Epoch [171/250] - Avg Loss: 0.2233
Epoch 172/250: 100%| | 570/570 [00:03<00:00, 179.00it/s]

[Feature Set: xydd_4] Epoch [172/250] - Avg Loss: 0.1975
Epoch 173/250: 100%| | 570/570 [00:03<00:00, 181.23it/s]

[Feature Set: xydd_4] Epoch [173/250] - Avg Loss: 0.2872
Epoch 174/250: 100%| | 570/570 [00:03<00:00, 177.04it/s]

[Feature Set: xydd_4] Epoch [174/250] - Avg Loss: 0.2744
Epoch 175/250: 100%| | 570/570 [00:03<00:00, 168.82it/s]

[Feature Set: xydd_4] Epoch [175/250] - Avg Loss: 0.2799
Epoch 176/250: 100%| | 570/570 [00:03<00:00, 176.37it/s]

[Feature Set: xydd_4] Epoch [176/250] - Avg Loss: 0.2918
Epoch 177/250: 100%| | 570/570 [00:03<00:00, 177.78it/s]

[Feature Set: xydd_4] Epoch [177/250] - Avg Loss: 0.2943
Epoch 178/250: 100%| | 570/570 [00:03<00:00, 178.36it/s]

[Feature Set: xydd_4] Epoch [178/250] - Avg Loss: 0.2818
Epoch 179/250: 100%| | 570/570 [00:03<00:00, 177.85it/s]

[Feature Set: xydd_4] Epoch [179/250] - Avg Loss: 0.2664
Epoch 180/250: 100%| | 570/570 [00:03<00:00, 177.58it/s]

[Feature Set: xydd_4] Epoch [180/250] - Avg Loss: 0.2399
Epoch 181/250: 100%| | 570/570 [00:03<00:00, 178.54it/s]

[Feature Set: xydd_4] Epoch [181/250] - Avg Loss: 0.2084
Epoch 182/250: 100%| | 570/570 [00:03<00:00, 179.36it/s]

[Feature Set: xydd_4] Epoch [182/250] - Avg Loss: 0.2018
Epoch 183/250: 100%| | 570/570 [00:03<00:00, 176.46it/s]

[Feature Set: xydd_4] Epoch [183/250] - Avg Loss: 0.2175
Epoch 184/250: 100%| | 570/570 [00:03<00:00, 177.37it/s]

[Feature Set: xydd_4] Epoch [184/250] - Avg Loss: 0.3022
Epoch 185/250: 100%| | 570/570 [00:03<00:00, 180.31it/s]

[Feature Set: xydd_4] Epoch [185/250] - Avg Loss: 0.2075
Epoch 186/250: 100%| | 570/570 [00:03<00:00, 177.09it/s]

[Feature Set: xydd_4] Epoch [186/250] - Avg Loss: 0.2140
Epoch 187/250: 100%| | 570/570 [00:03<00:00, 180.27it/s]

[Feature Set: xydd_4] Epoch [187/250] - Avg Loss: 0.2337
Epoch 188/250: 100%| | 570/570 [00:03<00:00, 175.06it/s]

[Feature Set: xydd_4] Epoch [188/250] - Avg Loss: 0.2042
Epoch 189/250: 100%| | 570/570 [00:03<00:00, 177.45it/s]

[Feature Set: xydd_4] Epoch [189/250] - Avg Loss: 0.3438
Epoch 190/250: 100%| | 570/570 [00:03<00:00, 178.32it/s]

[Feature Set: xydd_4] Epoch [190/250] - Avg Loss: 0.2837
Epoch 191/250: 100%| | 570/570 [00:03<00:00, 179.20it/s]

[Feature Set: xydd_4] Epoch [191/250] - Avg Loss: 0.1824
Epoch 192/250: 100%| | 570/570 [00:03<00:00, 181.43it/s]

[Feature Set: xydd_4] Epoch [192/250] - Avg Loss: 0.1998
Epoch 193/250: 100%| | 570/570 [00:03<00:00, 179.83it/s]

[Feature Set: xydd_4] Epoch [193/250] - Avg Loss: 0.2161
Epoch 194/250: 100%| | 570/570 [00:03<00:00, 180.36it/s]

[Feature Set: xydd_4] Epoch [194/250] - Avg Loss: 0.1891
Epoch 195/250: 100%| | 570/570 [00:03<00:00, 165.28it/s]

[Feature Set: xydd_4] Epoch [195/250] - Avg Loss: 0.2591
Epoch 196/250: 100%| | 570/570 [00:03<00:00, 179.25it/s]

[Feature Set: xydd_4] Epoch [196/250] - Avg Loss: 0.2725
Epoch 197/250: 100%| | 570/570 [00:03<00:00, 180.97it/s]

[Feature Set: xydd_4] Epoch [197/250] - Avg Loss: 0.2979
Epoch 198/250: 100%| | 570/570 [00:03<00:00, 178.22it/s]

[Feature Set: xydd_4] Epoch [198/250] - Avg Loss: 0.2961
Epoch 199/250: 100%| | 570/570 [00:03<00:00, 179.78it/s]

[Feature Set: xydd_4] Epoch [199/250] - Avg Loss: 0.2053
Epoch 200/250: 100%| | 570/570 [00:03<00:00, 181.40it/s]

[Feature Set: xydd_4] Epoch [200/250] - Avg Loss: 0.1886
Epoch 201/250: 100%| | 570/570 [00:03<00:00, 179.96it/s]

[Feature Set: xydd_4] Epoch [201/250] - Avg Loss: 0.1538
Epoch 202/250: 100%| | 570/570 [00:03<00:00, 181.19it/s]

[Feature Set: xydd_4] Epoch [202/250] - Avg Loss: 0.1703
Epoch 203/250: 100%| | 570/570 [00:03<00:00, 179.79it/s]

[Feature Set: xydd_4] Epoch [203/250] - Avg Loss: 0.3207
Epoch 204/250: 100%| | 570/570 [00:03<00:00, 180.76it/s]

[Feature Set: xydd_4] Epoch [204/250] - Avg Loss: 0.2377
Epoch 205/250: 100%| | 570/570 [00:03<00:00, 178.37it/s]

[Feature Set: xydd_4] Epoch [205/250] - Avg Loss: 0.1601
Epoch 206/250: 100%| | 570/570 [00:03<00:00, 179.72it/s]

[Feature Set: xydd_4] Epoch [206/250] - Avg Loss: 0.3534
Epoch 207/250: 100%| | 570/570 [00:03<00:00, 181.15it/s]

[Feature Set: xydd_4] Epoch [207/250] - Avg Loss: 0.2727
Epoch 208/250: 100%| | 570/570 [00:03<00:00, 177.34it/s]

[Feature Set: xydd_4] Epoch [208/250] - Avg Loss: 0.2158
Epoch 209/250: 100%| | 570/570 [00:03<00:00, 181.10it/s]

[Feature Set: xydd_4] Epoch [209/250] - Avg Loss: 0.2887
Epoch 210/250: 100%| | 570/570 [00:03<00:00, 180.04it/s]

[Feature Set: xydd_4] Epoch [210/250] - Avg Loss: 0.2479
Epoch 211/250: 100%| | 570/570 [00:03<00:00, 179.97it/s]

[Feature Set: xydd_4] Epoch [211/250] - Avg Loss: 0.2120
Epoch 212/250: 100%| | 570/570 [00:03<00:00, 181.79it/s]

[Feature Set: xydd_4] Epoch [212/250] - Avg Loss: 0.3177
Epoch 213/250: 100%| | 570/570 [00:03<00:00, 175.36it/s]

[Feature Set: xydd_4] Epoch [213/250] - Avg Loss: 0.2183
Epoch 214/250: 100%| | 570/570 [00:03<00:00, 179.68it/s]

[Feature Set: xydd_4] Epoch [214/250] - Avg Loss: 0.3014
Epoch 215/250: 100%| | 570/570 [00:03<00:00, 179.55it/s]

[Feature Set: xydd_4] Epoch [215/250] - Avg Loss: 0.2141
Epoch 216/250: 100%| | 570/570 [00:03<00:00, 181.10it/s]

[Feature Set: xydd_4] Epoch [216/250] - Avg Loss: 0.2957
Epoch 217/250: 100%| | 570/570 [00:03<00:00, 178.51it/s]

[Feature Set: xydd_4] Epoch [217/250] - Avg Loss: 0.2777
Epoch 218/250: 100%| | 570/570 [00:03<00:00, 179.26it/s]

[Feature Set: xydd_4] Epoch [218/250] - Avg Loss: 0.2456
Epoch 219/250: 100%| | 570/570 [00:03<00:00, 180.95it/s]

[Feature Set: xydd_4] Epoch [219/250] - Avg Loss: 0.2646
Epoch 220/250: 100%| | 570/570 [00:03<00:00, 179.99it/s]

[Feature Set: xydd_4] Epoch [220/250] - Avg Loss: 0.2991
Epoch 221/250: 100%| | 570/570 [00:03<00:00, 179.78it/s]

[Feature Set: xydd_4] Epoch [221/250] - Avg Loss: 0.2488
Epoch 222/250: 100%| | 570/570 [00:03<00:00, 179.83it/s]

[Feature Set: xydd_4] Epoch [222/250] - Avg Loss: 0.2474
Epoch 223/250: 100%| | 570/570 [00:03<00:00, 180.01it/s]

[Feature Set: xydd_4] Epoch [223/250] - Avg Loss: 0.3563
Epoch 224/250: 100%| | 570/570 [00:03<00:00, 181.24it/s]

[Feature Set: xydd_4] Epoch [224/250] - Avg Loss: 0.1870
Epoch 225/250: 100%| | 570/570 [00:03<00:00, 179.10it/s]

[Feature Set: xydd_4] Epoch [225/250] - Avg Loss: 0.2332
Epoch 226/250: 100%| | 570/570 [00:03<00:00, 180.08it/s]

[Feature Set: xydd_4] Epoch [226/250] - Avg Loss: 0.2203
Epoch 227/250: 100%| | 570/570 [00:03<00:00, 179.29it/s]

[Feature Set: xydd_4] Epoch [227/250] - Avg Loss: 0.3387
Epoch 228/250: 100%| | 570/570 [00:03<00:00, 181.18it/s]

[Feature Set: xydd_4] Epoch [228/250] - Avg Loss: 0.3079
Epoch 229/250: 100%| | 570/570 [00:03<00:00, 179.16it/s]

[Feature Set: xydd_4] Epoch [229/250] - Avg Loss: 0.2014
Epoch 230/250: 100%| | 570/570 [00:03<00:00, 177.93it/s]

[Feature Set: xydd_4] Epoch [230/250] - Avg Loss: 0.2639
Epoch 231/250: 100%| | 570/570 [00:03<00:00, 181.03it/s]

[Feature Set: xydd_4] Epoch [231/250] - Avg Loss: 0.2342
Epoch 232/250: 100%| | 570/570 [00:03<00:00, 179.96it/s]

[Feature Set: xydd_4] Epoch [232/250] - Avg Loss: 0.2308
Epoch 233/250: 100%| | 570/570 [00:03<00:00, 180.53it/s]

[Feature Set: xydd_4] Epoch [233/250] - Avg Loss: 0.2707
Epoch 234/250: 100%| | 570/570 [00:03<00:00, 179.86it/s]

[Feature Set: xydd_4] Epoch [234/250] - Avg Loss: 0.2027
Epoch 235/250: 100%| | 570/570 [00:03<00:00, 179.67it/s]

[Feature Set: xydd_4] Epoch [235/250] - Avg Loss: 0.3232
Epoch 236/250: 100%| | 570/570 [00:03<00:00, 180.51it/s]

[Feature Set: xydd_4] Epoch [236/250] - Avg Loss: 0.2130
Epoch 237/250: 100%| | 570/570 [00:03<00:00, 179.03it/s]

[Feature Set: xydd_4] Epoch [237/250] - Avg Loss: 0.3478
Epoch 238/250: 100%| | 570/570 [00:03<00:00, 155.78it/s]

[Feature Set: xydd_4] Epoch [238/250] - Avg Loss: 0.2200
Epoch 239/250: 100%| | 570/570 [00:03<00:00, 174.61it/s]

[Feature Set: xydd_4] Epoch [239/250] - Avg Loss: 0.2262
Epoch 240/250: 100%| | 570/570 [00:03<00:00, 177.13it/s]

[Feature Set: xydd_4] Epoch [240/250] - Avg Loss: 0.2673
Epoch 241/250: 100%| | 570/570 [00:03<00:00, 180.94it/s]

[Feature Set: xydd_4] Epoch [241/250] - Avg Loss: 0.2105
Epoch 242/250: 100%| | 570/570 [00:03<00:00, 179.24it/s]

[Feature Set: xydd_4] Epoch [242/250] - Avg Loss: 0.2065
Epoch 243/250: 100%| | 570/570 [00:03<00:00, 178.24it/s]

[Feature Set: xydd_4] Epoch [243/250] - Avg Loss: 0.3910
Epoch 244/250: 100%| | 570/570 [00:03<00:00, 167.29it/s]

[Feature Set: xydd_4] Epoch [244/250] - Avg Loss: 0.3992
Epoch 245/250: 100%| | 570/570 [00:03<00:00, 164.03it/s]

[Feature Set: xydd_4] Epoch [245/250] - Avg Loss: 0.3877
Epoch 246/250: 100%| | 570/570 [00:03<00:00, 154.69it/s]

[Feature Set: xydd_4] Epoch [246/250] - Avg Loss: 0.2178
Epoch 247/250: 100%| | 570/570 [00:04<00:00, 138.90it/s]

[Feature Set: xydd_4] Epoch [247/250] - Avg Loss: 0.2849
Epoch 248/250: 100%| | 570/570 [00:03<00:00, 177.06it/s]

[Feature Set: xydd_4] Epoch [248/250] - Avg Loss: 0.2853
Epoch 249/250: 100%| | 570/570 [00:04<00:00, 130.63it/s]

[Feature Set: xydd_4] Epoch [249/250] - Avg Loss: 0.3021
Epoch 250/250: 100%| | 570/570 [00:03<00:00, 146.55it/s]

[Feature Set: xydd_4] Epoch [250/250] - Avg Loss: 0.2747
[Eval] xydd_4: 100%| | 143/143 [00:00<00:00, 329.48it/s]
Epoch 1/250: 100%| | 570/570 [00:03<00:00, 181.88it/s]

[Feature Set: xyddsc_5] Epoch [1/250] - Avg Loss: 0.6882
Epoch 2/250: 100%| | 570/570 [00:03<00:00, 179.48it/s]

[Feature Set: xyddsc_5] Epoch [2/250] - Avg Loss: 0.6721
Epoch 3/250: 100%| | 570/570 [00:03<00:00, 182.62it/s]

[Feature Set: xyddsc_5] Epoch [3/250] - Avg Loss: 0.6764
Epoch 4/250: 100%| | 570/570 [00:03<00:00, 182.85it/s]

[Feature Set: xyddsc_5] Epoch [4/250] - Avg Loss: 0.6680
Epoch 5/250: 100%| | 570/570 [00:03<00:00, 182.66it/s]

[Feature Set: xyddsc_5] Epoch [5/250] - Avg Loss: 0.6709
Epoch 6/250: 100%| | 570/570 [00:03<00:00, 180.12it/s]

[Feature Set: xyddsc_5] Epoch [6/250] - Avg Loss: 0.6708
Epoch 7/250: 100%| | 570/570 [00:03<00:00, 181.44it/s]

[Feature Set: xyddsc_5] Epoch [7/250] - Avg Loss: 0.6638
Epoch 8/250: 100%| | 570/570 [00:03<00:00, 180.95it/s]

[Feature Set: xyddsc_5] Epoch [8/250] - Avg Loss: 0.6751
Epoch 9/250: 100%| | 570/570 [00:03<00:00, 182.02it/s]

[Feature Set: xyddsc_5] Epoch [9/250] - Avg Loss: 0.6670
Epoch 10/250: 100%| | 570/570 [00:03<00:00, 180.35it/s]

[Feature Set: xyddsc_5] Epoch [10/250] - Avg Loss: 0.6649
Epoch 11/250: 100%| | 570/570 [00:03<00:00, 182.81it/s]

[Feature Set: xyddsc_5] Epoch [11/250] - Avg Loss: 0.6534

Epoch 12/250: 100%| | 570/570 [00:03<00:00, 180.54it/s]

[Feature Set: xydsc_5] Epoch [12/250] - Avg Loss: 0.6535

Epoch 13/250: 100%| | 570/570 [00:03<00:00, 181.85it/s]

[Feature Set: xydsc_5] Epoch [13/250] - Avg Loss: 0.6245

Epoch 14/250: 100%| | 570/570 [00:03<00:00, 181.26it/s]

[Feature Set: xydsc_5] Epoch [14/250] - Avg Loss: 0.6268

Epoch 15/250: 100%| | 570/570 [00:03<00:00, 182.97it/s]

[Feature Set: xydsc_5] Epoch [15/250] - Avg Loss: 0.6221

Epoch 16/250: 100%| | 570/570 [00:03<00:00, 183.11it/s]

[Feature Set: xydsc_5] Epoch [16/250] - Avg Loss: 0.6034

Epoch 17/250: 100%| | 570/570 [00:03<00:00, 182.79it/s]

[Feature Set: xydsc_5] Epoch [17/250] - Avg Loss: 0.5840

Epoch 18/250: 100%| | 570/570 [00:03<00:00, 179.71it/s]

[Feature Set: xydsc_5] Epoch [18/250] - Avg Loss: 0.5809

Epoch 19/250: 100%| | 570/570 [00:03<00:00, 182.93it/s]

[Feature Set: xydsc_5] Epoch [19/250] - Avg Loss: 0.5710

Epoch 20/250: 100%| | 570/570 [00:03<00:00, 182.94it/s]

[Feature Set: xydsc_5] Epoch [20/250] - Avg Loss: 0.5670

Epoch 21/250: 100%| | 570/570 [00:03<00:00, 181.57it/s]

[Feature Set: xydsc_5] Epoch [21/250] - Avg Loss: 0.5595

Epoch 22/250: 100%| | 570/570 [00:03<00:00, 182.20it/s]

[Feature Set: xydsc_5] Epoch [22/250] - Avg Loss: 0.5297

Epoch 23/250: 100%| | 570/570 [00:03<00:00, 182.88it/s]

[Feature Set: xydsc_5] Epoch [23/250] - Avg Loss: 0.5255

Epoch 24/250: 100%| | 570/570 [00:03<00:00, 182.98it/s]

[Feature Set: xydsc_5] Epoch [24/250] - Avg Loss: 0.5220

Epoch 25/250: 100%| | 570/570 [00:03<00:00, 181.51it/s]

[Feature Set: xydsc_5] Epoch [25/250] - Avg Loss: 0.5104

Epoch 26/250: 100%| | 570/570 [00:03<00:00, 180.51it/s]

[Feature Set: xydsc_5] Epoch [26/250] - Avg Loss: 0.4810

Epoch 27/250: 100%| | 570/570 [00:03<00:00, 182.05it/s]

[Feature Set: xydsc_5] Epoch [27/250] - Avg Loss: 0.5489

Epoch 28/250: 100%| | 570/570 [00:03<00:00, 182.94it/s]

[Feature Set: xydsc_5] Epoch [28/250] - Avg Loss: 0.4916

Epoch 29/250: 100%| | 570/570 [00:03<00:00, 180.39it/s]

[Feature Set: xydsc_5] Epoch [29/250] - Avg Loss: 0.5120

Epoch 30/250: 100%| | 570/570 [00:03<00:00, 182.85it/s]

[Feature Set: xydsc_5] Epoch [30/250] - Avg Loss: 0.4845

Epoch 31/250: 100%| | 570/570 [00:03<00:00, 182.69it/s]

[Feature Set: xydsc_5] Epoch [31/250] - Avg Loss: 0.5031

Epoch 32/250: 100%| | 570/570 [00:03<00:00, 181.89it/s]

[Feature Set: xydsc_5] Epoch [32/250] - Avg Loss: 0.4558

Epoch 33/250: 100%| | 570/570 [00:03<00:00, 183.08it/s]

[Feature Set: xydsc_5] Epoch [33/250] - Avg Loss: 0.4760

Epoch 34/250: 100%| | 570/570 [00:03<00:00, 182.79it/s]

[Feature Set: xydsc_5] Epoch [34/250] - Avg Loss: 0.4468

Epoch 35/250: 100%| | 570/570 [00:03<00:00, 183.13it/s]

[Feature Set: xydsc_5] Epoch [35/250] - Avg Loss: 0.4535

Epoch 36/250: 100%| | 570/570 [00:03<00:00, 180.61it/s]

[Feature Set: xydsc_5] Epoch [36/250] - Avg Loss: 0.4495

Epoch 37/250: 100%| | 570/570 [00:03<00:00, 182.37it/s]

[Feature Set: xydsc_5] Epoch [37/250] - Avg Loss: 0.4636

Epoch 38/250: 100%| | 570/570 [00:03<00:00, 182.21it/s]

[Feature Set: xydsc_5] Epoch [38/250] - Avg Loss: 0.4776

Epoch 39/250: 100%| | 570/570 [00:03<00:00, 182.66it/s]

[Feature Set: xydsc_5] Epoch [39/250] - Avg Loss: 0.4443

Epoch 40/250: 100%| | 570/570 [00:03<00:00, 180.86it/s]

[Feature Set: xydsc_5] Epoch [40/250] - Avg Loss: 0.4545

Epoch 41/250: 100%| | 570/570 [00:03<00:00, 182.69it/s]

[Feature Set: xydsc_5] Epoch [41/250] - Avg Loss: 0.4834

Epoch 42/250: 100%| | 570/570 [00:03<00:00, 183.12it/s]

[Feature Set: xydsc_5] Epoch [42/250] - Avg Loss: 0.4369

Epoch 43/250: 100%| | 570/570 [00:03<00:00, 183.74it/s]

[Feature Set: xydsc_5] Epoch [43/250] - Avg Loss: 0.4268

Epoch 44/250: 100%| | 570/570 [00:03<00:00, 180.45it/s]

[Feature Set: xydsc_5] Epoch [44/250] - Avg Loss: 0.3940

Epoch 45/250: 100%| | 570/570 [00:03<00:00, 181.90it/s]

[Feature Set: xydsc_5] Epoch [45/250] - Avg Loss: 0.4287

Epoch 46/250: 100%| | 570/570 [00:03<00:00, 182.27it/s]

[Feature Set: xydsc_5] Epoch [46/250] - Avg Loss: 0.3985

Epoch 47/250: 100%| | 570/570 [00:03<00:00, 183.07it/s]

[Feature Set: xydsc_5] Epoch [47/250] - Avg Loss: 0.4110

Epoch 48/250: 100%| | 570/570 [00:03<00:00, 178.61it/s]

[Feature Set: xydsc_5] Epoch [48/250] - Avg Loss: 0.4820

Epoch 49/250: 100%| | 570/570 [00:03<00:00, 172.26it/s]

[Feature Set: xydsc_5] Epoch [49/250] - Avg Loss: 0.4021

Epoch 50/250: 100%| | 570/570 [00:03<00:00, 182.98it/s]

[Feature Set: xydsc_5] Epoch [50/250] - Avg Loss: 0.3861

Epoch 51/250: 100%| | 570/570 [00:03<00:00, 182.42it/s]

[Feature Set: xydsc_5] Epoch [51/250] - Avg Loss: 0.4069

Epoch 52/250: 100%| | 570/570 [00:03<00:00, 165.21it/s]

[Feature Set: xydsc_5] Epoch [52/250] - Avg Loss: 0.4213

Epoch 53/250: 100%| | 570/570 [00:03<00:00, 175.53it/s]

[Feature Set: xydsc_5] Epoch [53/250] - Avg Loss: 0.3779

Epoch 54/250: 100%| | 570/570 [00:03<00:00, 144.91it/s]

[Feature Set: xydsc_5] Epoch [54/250] - Avg Loss: 0.3662

Epoch 55/250: 100%| | 570/570 [00:03<00:00, 144.13it/s]

[Feature Set: xydsc_5] Epoch [55/250] - Avg Loss: 0.3891

Epoch 56/250: 100%| | 570/570 [00:03<00:00, 165.30it/s]

[Feature Set: xydsc_5] Epoch [56/250] - Avg Loss: 0.3730

Epoch 57/250: 100%| | 570/570 [00:04<00:00, 136.88it/s]

[Feature Set: xydsc_5] Epoch [57/250] - Avg Loss: 0.3519

Epoch 58/250: 100%| | 570/570 [00:03<00:00, 147.35it/s]

[Feature Set: xydsc_5] Epoch [58/250] - Avg Loss: 0.3481

Epoch 59/250: 100%| | 570/570 [00:04<00:00, 140.14it/s]

[Feature Set: xydsc_5] Epoch [59/250] - Avg Loss: 0.3813

Epoch 60/250: 100%| | 570/570 [00:04<00:00, 140.77it/s]

[Feature Set: xydsc_5] Epoch [60/250] - Avg Loss: 0.3960

Epoch 61/250: 100%| | 570/570 [00:03<00:00, 176.94it/s]

[Feature Set: xydsc_5] Epoch [61/250] - Avg Loss: 0.3512

Epoch 62/250: 100%| | 570/570 [00:03<00:00, 175.67it/s]

[Feature Set: xydsc_5] Epoch [62/250] - Avg Loss: 0.3083

Epoch 63/250: 100%| | 570/570 [00:03<00:00, 179.83it/s]

[Feature Set: xydsc_5] Epoch [63/250] - Avg Loss: 0.4370

Epoch 64/250: 100%| | 570/570 [00:03<00:00, 179.37it/s]

[Feature Set: xydsc_5] Epoch [64/250] - Avg Loss: 0.3357

Epoch 65/250: 100%| | 570/570 [00:03<00:00, 181.61it/s]

[Feature Set: xydsc_5] Epoch [65/250] - Avg Loss: 0.3386

Epoch 66/250: 100%| | 570/570 [00:03<00:00, 181.21it/s]

[Feature Set: xydsc_5] Epoch [66/250] - Avg Loss: 0.2854

Epoch 67/250: 100%| | 570/570 [00:03<00:00, 181.85it/s]

[Feature Set: xydsc_5] Epoch [67/250] - Avg Loss: 0.3212

Epoch 68/250: 100%| | 570/570 [00:03<00:00, 181.95it/s]

[Feature Set: xydsc_5] Epoch [68/250] - Avg Loss: 0.2802

Epoch 69/250: 100%| | 570/570 [00:03<00:00, 181.89it/s]

[Feature Set: xydsc_5] Epoch [69/250] - Avg Loss: 0.4286

Epoch 70/250: 100%| | 570/570 [00:03<00:00, 177.94it/s]

[Feature Set: xydsc_5] Epoch [70/250] - Avg Loss: 0.3530

Epoch 71/250: 100%| | 570/570 [00:03<00:00, 178.47it/s]

[Feature Set: xydsc_5] Epoch [71/250] - Avg Loss: 0.3281

Epoch 72/250: 100%| | 570/570 [00:03<00:00, 182.32it/s]

[Feature Set: xydsc_5] Epoch [72/250] - Avg Loss: 0.3088

Epoch 73/250: 100%| | 570/570 [00:03<00:00, 182.55it/s]

[Feature Set: xydsc_5] Epoch [73/250] - Avg Loss: 0.2709

Epoch 74/250: 100%| | 570/570 [00:03<00:00, 181.20it/s]

[Feature Set: xydsc_5] Epoch [74/250] - Avg Loss: 0.3081

Epoch 75/250: 100%| | 570/570 [00:03<00:00, 182.38it/s]

[Feature Set: xydsc_5] Epoch [75/250] - Avg Loss: 0.3019

Epoch 76/250: 100%| | 570/570 [00:03<00:00, 179.51it/s]

[Feature Set: xydsc_5] Epoch [76/250] - Avg Loss: 0.4053

Epoch 77/250: 100%| | 570/570 [00:03<00:00, 183.39it/s]

[Feature Set: xydsc_5] Epoch [77/250] - Avg Loss: 0.3900

Epoch 78/250: 100%| | 570/570 [00:03<00:00, 176.66it/s]

[Feature Set: xydsc_5] Epoch [78/250] - Avg Loss: 0.2984

Epoch 79/250: 100%| | 570/570 [00:03<00:00, 163.61it/s]

[Feature Set: xydsc_5] Epoch [79/250] - Avg Loss: 0.2998

Epoch 80/250: 100%| | 570/570 [00:03<00:00, 172.56it/s]

[Feature Set: xydsc_5] Epoch [80/250] - Avg Loss: 0.3333

Epoch 81/250: 100%| | 570/570 [00:03<00:00, 177.65it/s]

[Feature Set: xydsc_5] Epoch [81/250] - Avg Loss: 0.2686

Epoch 82/250: 100%| | 570/570 [00:03<00:00, 179.01it/s]

[Feature Set: xydsc_5] Epoch [82/250] - Avg Loss: 0.3411

Epoch 83/250: 100%| | 570/570 [00:03<00:00, 177.60it/s]

[Feature Set: xydsc_5] Epoch [83/250] - Avg Loss: 0.3470

Epoch 84/250: 100%| | 570/570 [00:03<00:00, 178.42it/s]

[Feature Set: xydsc_5] Epoch [84/250] - Avg Loss: 0.2851

Epoch 85/250: 100%| | 570/570 [00:03<00:00, 178.84it/s]

[Feature Set: xydsc_5] Epoch [85/250] - Avg Loss: 0.2988

Epoch 86/250: 100%| | 570/570 [00:03<00:00, 179.39it/s]

[Feature Set: xydsc_5] Epoch [86/250] - Avg Loss: 0.2446

Epoch 87/250: 100%| | 570/570 [00:03<00:00, 177.78it/s]

[Feature Set: xydsc_5] Epoch [87/250] - Avg Loss: 0.2456

Epoch 88/250: 100%| | 570/570 [00:03<00:00, 178.80it/s]

[Feature Set: xydsc_5] Epoch [88/250] - Avg Loss: 0.2787

Epoch 89/250: 100%| | 570/570 [00:03<00:00, 178.61it/s]

[Feature Set: xydsc_5] Epoch [89/250] - Avg Loss: 0.3166

Epoch 90/250: 100%| | 570/570 [00:03<00:00, 179.23it/s]

[Feature Set: xydsc_5] Epoch [90/250] - Avg Loss: 0.2033

Epoch 91/250: 100%| | 570/570 [00:03<00:00, 177.65it/s]

[Feature Set: xydsc_5] Epoch [91/250] - Avg Loss: 0.2990

Epoch 92/250: 100%| | 570/570 [00:03<00:00, 178.93it/s]

[Feature Set: xydsc_5] Epoch [92/250] - Avg Loss: 0.2884

Epoch 93/250: 100%| | 570/570 [00:03<00:00, 178.70it/s]

[Feature Set: xydsc_5] Epoch [93/250] - Avg Loss: 0.3430

Epoch 94/250: 100%| | 570/570 [00:03<00:00, 179.33it/s]

[Feature Set: xydsc_5] Epoch [94/250] - Avg Loss: 0.2564

Epoch 95/250: 100%| | 570/570 [00:03<00:00, 177.57it/s]

[Feature Set: xydsc_5] Epoch [95/250] - Avg Loss: 0.2441

Epoch 96/250: 100%| | 570/570 [00:03<00:00, 178.93it/s]

[Feature Set: xydsc_5] Epoch [96/250] - Avg Loss: 0.2493

Epoch 97/250: 100%| | 570/570 [00:03<00:00, 178.90it/s]

[Feature Set: xydsc_5] Epoch [97/250] - Avg Loss: 0.3089

Epoch 98/250: 100%| | 570/570 [00:03<00:00, 178.86it/s]

[Feature Set: xydsc_5] Epoch [98/250] - Avg Loss: 0.2171

Epoch 99/250: 100%| | 570/570 [00:03<00:00, 177.82it/s]

[Feature Set: xydsc_5] Epoch [99/250] - Avg Loss: 0.2605

Epoch 100/250: 100%| | 570/570 [00:03<00:00, 179.30it/s]

[Feature Set: xydsc_5] Epoch [100/250] - Avg Loss: 0.2111

Epoch 101/250: 100%| | 570/570 [00:03<00:00, 178.97it/s]

[Feature Set: xydsc_5] Epoch [101/250] - Avg Loss: 0.2595

Epoch 102/250: 100%| | 570/570 [00:03<00:00, 179.22it/s]

[Feature Set: xydsc_5] Epoch [102/250] - Avg Loss: 0.2758

Epoch 103/250: 100%| | 570/570 [00:03<00:00, 177.49it/s]

[Feature Set: xydsc_5] Epoch [103/250] - Avg Loss: 0.1863

Epoch 104/250: 100%| | 570/570 [00:03<00:00, 179.03it/s]

[Feature Set: xydsc_5] Epoch [104/250] - Avg Loss: 0.2515

Epoch 105/250: 100%| | 570/570 [00:03<00:00, 178.73it/s]

[Feature Set: xydsc_5] Epoch [105/250] - Avg Loss: 0.2072

Epoch 106/250: 100%| | 570/570 [00:03<00:00, 178.98it/s]

[Feature Set: xydsc_5] Epoch [106/250] - Avg Loss: 0.3549

Epoch 107/250: 100%| | 570/570 [00:03<00:00, 177.55it/s]

[Feature Set: xydsc_5] Epoch [107/250] - Avg Loss: 0.2908

Epoch 108/250: 100%| | 570/570 [00:03<00:00, 178.80it/s]

[Feature Set: xydsc_5] Epoch [108/250] - Avg Loss: 0.1830

Epoch 109/250: 100%| | 570/570 [00:03<00:00, 178.57it/s]

[Feature Set: xydsc_5] Epoch [109/250] - Avg Loss: 0.2598

Epoch 110/250: 100%| | 570/570 [00:03<00:00, 179.16it/s]

[Feature Set: xydsc_5] Epoch [110/250] - Avg Loss: 0.2032

Epoch 111/250: 100%| | 570/570 [00:03<00:00, 177.30it/s]

[Feature Set: xydsc_5] Epoch [111/250] - Avg Loss: 0.2426

Epoch 112/250: 100%| | 570/570 [00:03<00:00, 178.63it/s]

[Feature Set: xydsc_5] Epoch [112/250] - Avg Loss: 0.2509

Epoch 113/250: 100%| | 570/570 [00:03<00:00, 175.83it/s]

[Feature Set: xydsc_5] Epoch [113/250] - Avg Loss: 0.2071

Epoch 114/250: 100%| | 570/570 [00:03<00:00, 179.01it/s]

[Feature Set: xydsc_5] Epoch [114/250] - Avg Loss: 0.2701

Epoch 115/250: 100%| | 570/570 [00:03<00:00, 177.34it/s]

[Feature Set: xydsc_5] Epoch [115/250] - Avg Loss: 0.3459

Epoch 116/250: 100%| | 570/570 [00:03<00:00, 179.10it/s]

[Feature Set: xydsc_5] Epoch [116/250] - Avg Loss: 0.2082

Epoch 117/250: 100%| | 570/570 [00:03<00:00, 178.77it/s]

[Feature Set: xydsc_5] Epoch [117/250] - Avg Loss: 0.2119

Epoch 118/250: 100%| | 570/570 [00:03<00:00, 178.93it/s]

[Feature Set: xydsc_5] Epoch [118/250] - Avg Loss: 0.2650

Epoch 119/250: 100%| | 570/570 [00:03<00:00, 177.31it/s]

[Feature Set: xydsc_5] Epoch [119/250] - Avg Loss: 0.2214

Epoch 120/250: 100%| | 570/570 [00:03<00:00, 179.04it/s]

[Feature Set: xydsc_5] Epoch [120/250] - Avg Loss: 0.2766

Epoch 121/250: 100%| | 570/570 [00:03<00:00, 178.52it/s]

[Feature Set: xydsc_5] Epoch [121/250] - Avg Loss: 0.2667

Epoch 122/250: 100%| | 570/570 [00:03<00:00, 177.32it/s]

[Feature Set: xydsc_5] Epoch [122/250] - Avg Loss: 0.2522

Epoch 123/250: 100%| | 570/570 [00:03<00:00, 178.29it/s]

[Feature Set: xydsc_5] Epoch [123/250] - Avg Loss: 0.1686

Epoch 124/250: 100%| | 570/570 [00:03<00:00, 178.51it/s]

[Feature Set: xydsc_5] Epoch [124/250] - Avg Loss: 0.2499

Epoch 125/250: 100%| | 570/570 [00:03<00:00, 178.83it/s]

[Feature Set: xydsc_5] Epoch [125/250] - Avg Loss: 0.3154

Epoch 126/250: 100%| | 570/570 [00:03<00:00, 177.65it/s]

[Feature Set: xydsc_5] Epoch [126/250] - Avg Loss: 0.2132

Epoch 127/250: 100%| | 570/570 [00:03<00:00, 175.30it/s]

[Feature Set: xydsc_5] Epoch [127/250] - Avg Loss: 0.1881

Epoch 128/250: 100%| | 570/570 [00:03<00:00, 179.27it/s]

[Feature Set: xydsc_5] Epoch [128/250] - Avg Loss: 0.3938

Epoch 129/250: 100%| | 570/570 [00:03<00:00, 177.95it/s]

[Feature Set: xydsc_5] Epoch [129/250] - Avg Loss: 0.2727

Epoch 130/250: 100%| | 570/570 [00:03<00:00, 177.14it/s]

[Feature Set: xydsc_5] Epoch [130/250] - Avg Loss: 0.2113

Epoch 131/250: 100%| | 570/570 [00:03<00:00, 178.67it/s]

[Feature Set: xydsc_5] Epoch [131/250] - Avg Loss: 0.2113

Epoch 132/250: 100%| | 570/570 [00:03<00:00, 178.75it/s]

[Feature Set: xydsc_5] Epoch [132/250] - Avg Loss: 0.1363

Epoch 133/250: 100%| | 570/570 [00:03<00:00, 178.66it/s]

[Feature Set: xydsc_5] Epoch [133/250] - Avg Loss: 0.2125

Epoch 134/250: 100%| | 570/570 [00:03<00:00, 177.34it/s]

[Feature Set: xydsc_5] Epoch [134/250] - Avg Loss: 0.3037

Epoch 135/250: 100%| | 570/570 [00:03<00:00, 178.67it/s]

[Feature Set: xydsc_5] Epoch [135/250] - Avg Loss: 0.1853

Epoch 136/250: 100%| | 570/570 [00:03<00:00, 178.41it/s]

[Feature Set: xydsc_5] Epoch [136/250] - Avg Loss: 0.1729

Epoch 137/250: 100%| | 570/570 [00:03<00:00, 178.81it/s]

[Feature Set: xydsc_5] Epoch [137/250] - Avg Loss: 0.2071

Epoch 138/250: 100%| | 570/570 [00:03<00:00, 177.28it/s]

[Feature Set: xydsc_5] Epoch [138/250] - Avg Loss: 0.1877

Epoch 139/250: 100%| | 570/570 [00:03<00:00, 179.00it/s]

[Feature Set: xydsc_5] Epoch [139/250] - Avg Loss: 0.2369

Epoch 140/250: 100%| | 570/570 [00:03<00:00, 178.68it/s]

[Feature Set: xydsc_5] Epoch [140/250] - Avg Loss: 0.2674

Epoch 141/250: 100%| | 570/570 [00:03<00:00, 179.12it/s]

[Feature Set: xydsc_5] Epoch [141/250] - Avg Loss: 0.2253

Epoch 142/250: 100%| | 570/570 [00:03<00:00, 178.15it/s]

[Feature Set: xydsc_5] Epoch [142/250] - Avg Loss: 0.1908

Epoch 143/250: 100%| | 570/570 [00:03<00:00, 178.56it/s]

[Feature Set: xydsc_5] Epoch [143/250] - Avg Loss: 0.2771

Epoch 144/250: 100%| | 570/570 [00:03<00:00, 178.55it/s]

[Feature Set: xydsc_5] Epoch [144/250] - Avg Loss: 0.2070

Epoch 145/250: 100%| | 570/570 [00:03<00:00, 178.75it/s]

[Feature Set: xydsc_5] Epoch [145/250] - Avg Loss: 0.2240

Epoch 146/250: 100%| | 570/570 [00:03<00:00, 177.90it/s]

[Feature Set: xydsc_5] Epoch [146/250] - Avg Loss: 0.1849

Epoch 147/250: 100%| | 570/570 [00:03<00:00, 178.43it/s]

[Feature Set: xydsc_5] Epoch [147/250] - Avg Loss: 0.3743

Epoch 148/250: 100%| | 570/570 [00:03<00:00, 177.19it/s]

[Feature Set: xydsc_5] Epoch [148/250] - Avg Loss: 0.2606

Epoch 149/250: 100%| | 570/570 [00:03<00:00, 178.50it/s]

[Feature Set: xydsc_5] Epoch [149/250] - Avg Loss: 0.2327

Epoch 150/250: 100%| | 570/570 [00:03<00:00, 177.76it/s]

[Feature Set: xydsc_5] Epoch [150/250] - Avg Loss: 0.2361

Epoch 151/250: 100%| | 570/570 [00:03<00:00, 178.79it/s]

[Feature Set: xydsc_5] Epoch [151/250] - Avg Loss: 0.1882

Epoch 152/250: 100%| | 570/570 [00:03<00:00, 178.90it/s]

[Feature Set: xydsc_5] Epoch [152/250] - Avg Loss: 0.1805

Epoch 153/250: 100%| | 570/570 [00:03<00:00, 177.50it/s]

[Feature Set: xydsc_5] Epoch [153/250] - Avg Loss: 0.1840

Epoch 154/250: 100%| | 570/570 [00:03<00:00, 179.07it/s]

[Feature Set: xydsc_5] Epoch [154/250] - Avg Loss: 0.3232

Epoch 155/250: 100%| | 570/570 [00:03<00:00, 179.02it/s]

[Feature Set: xydsc_5] Epoch [155/250] - Avg Loss: 0.1972

Epoch 156/250: 100%| | 570/570 [00:03<00:00, 179.32it/s]

[Feature Set: xydsc_5] Epoch [156/250] - Avg Loss: 0.2105

Epoch 157/250: 100%| | 570/570 [00:03<00:00, 177.62it/s]

[Feature Set: xydsc_5] Epoch [157/250] - Avg Loss: 0.2195

Epoch 158/250: 100%| | 570/570 [00:03<00:00, 179.44it/s]

[Feature Set: xydsc_5] Epoch [158/250] - Avg Loss: 0.2333

Epoch 159/250: 100%| | 570/570 [00:03<00:00, 179.10it/s]

[Feature Set: xydsc_5] Epoch [159/250] - Avg Loss: 0.2411

Epoch 160/250: 100%| | 570/570 [00:03<00:00, 178.89it/s]

[Feature Set: xydsc_5] Epoch [160/250] - Avg Loss: 0.3176

Epoch 161/250: 100%| | 570/570 [00:03<00:00, 177.43it/s]

[Feature Set: xydsc_5] Epoch [161/250] - Avg Loss: 0.2135

Epoch 162/250: 100%| | 570/570 [00:03<00:00, 178.85it/s]

[Feature Set: xydsc_5] Epoch [162/250] - Avg Loss: 0.2509

Epoch 163/250: 100%| | 570/570 [00:03<00:00, 178.40it/s]

[Feature Set: xydsc_5] Epoch [163/250] - Avg Loss: 0.2346

Epoch 164/250: 100%| | 570/570 [00:03<00:00, 179.03it/s]

[Feature Set: xydsc_5] Epoch [164/250] - Avg Loss: 0.2321

Epoch 165/250: 100%| | 570/570 [00:03<00:00, 167.67it/s]

[Feature Set: xydsc_5] Epoch [165/250] - Avg Loss: 0.2743

Epoch 166/250: 100%| | 570/570 [00:03<00:00, 171.05it/s]

[Feature Set: xydsc_5] Epoch [166/250] - Avg Loss: 0.2324

Epoch 167/250: 100%| | 570/570 [00:03<00:00, 174.37it/s]

[Feature Set: xydsc_5] Epoch [167/250] - Avg Loss: 0.1608

Epoch 168/250: 100%| | 570/570 [00:03<00:00, 177.10it/s]

[Feature Set: xydsc_5] Epoch [168/250] - Avg Loss: 0.2522

Epoch 169/250: 100%| | 570/570 [00:03<00:00, 178.55it/s]

[Feature Set: xydsc_5] Epoch [169/250] - Avg Loss: 0.1301

Epoch 170/250: 100%| | 570/570 [00:03<00:00, 179.31it/s]

[Feature Set: xydsc_5] Epoch [170/250] - Avg Loss: 0.1705

Epoch 171/250: 100%| | 570/570 [00:03<00:00, 179.10it/s]

[Feature Set: xydsc_5] Epoch [171/250] - Avg Loss: 0.2040

Epoch 172/250: 100%| | 570/570 [00:03<00:00, 177.63it/s]

[Feature Set: xydsc_5] Epoch [172/250] - Avg Loss: 0.1710

Epoch 173/250: 100%| | 570/570 [00:03<00:00, 179.18it/s]

[Feature Set: xydsc_5] Epoch [173/250] - Avg Loss: 0.1501

Epoch 174/250: 100%| | 570/570 [00:03<00:00, 178.32it/s]

[Feature Set: xydsc_5] Epoch [174/250] - Avg Loss: 0.1931

Epoch 175/250: 100%| | 570/570 [00:03<00:00, 178.89it/s]

[Feature Set: xydsc_5] Epoch [175/250] - Avg Loss: 0.4685

Epoch 176/250: 100%| | 570/570 [00:03<00:00, 174.58it/s]

[Feature Set: xydsc_5] Epoch [176/250] - Avg Loss: 0.1753

Epoch 177/250: 100%| | 570/570 [00:03<00:00, 178.69it/s]

[Feature Set: xydsc_5] Epoch [177/250] - Avg Loss: 0.1378

Epoch 178/250: 100%| | 570/570 [00:03<00:00, 178.80it/s]

[Feature Set: xydsc_5] Epoch [178/250] - Avg Loss: 0.1632

Epoch 179/250: 100%| | 570/570 [00:03<00:00, 177.72it/s]

[Feature Set: xydsc_5] Epoch [179/250] - Avg Loss: 0.1826

Epoch 180/250: 100%| | 570/570 [00:03<00:00, 176.02it/s]

[Feature Set: xydsc_5] Epoch [180/250] - Avg Loss: 0.3105

Epoch 181/250: 100%| | 570/570 [00:03<00:00, 179.39it/s]

[Feature Set: xydsc_5] Epoch [181/250] - Avg Loss: 0.1908

Epoch 182/250: 100%| | 570/570 [00:03<00:00, 179.19it/s]

[Feature Set: xydsc_5] Epoch [182/250] - Avg Loss: 0.1527

Epoch 183/250: 100%| | 570/570 [00:03<00:00, 177.70it/s]

[Feature Set: xydsc_5] Epoch [183/250] - Avg Loss: 0.2697

Epoch 184/250: 100%| | 570/570 [00:03<00:00, 179.30it/s]

[Feature Set: xydsc_5] Epoch [184/250] - Avg Loss: 0.3486

Epoch 185/250: 100%| | 570/570 [00:03<00:00, 178.67it/s]

[Feature Set: xydsc_5] Epoch [185/250] - Avg Loss: 0.1579

Epoch 186/250: 100%| | 570/570 [00:03<00:00, 178.85it/s]

[Feature Set: xydsc_5] Epoch [186/250] - Avg Loss: 0.1948

Epoch 187/250: 100%| | 570/570 [00:03<00:00, 177.22it/s]

[Feature Set: xydsc_5] Epoch [187/250] - Avg Loss: 0.2208

Epoch 188/250: 100%| | 570/570 [00:03<00:00, 179.74it/s]

[Feature Set: xydsc_5] Epoch [188/250] - Avg Loss: 0.1941

Epoch 189/250: 100%| | 570/570 [00:03<00:00, 178.98it/s]

[Feature Set: xydsc_5] Epoch [189/250] - Avg Loss: 0.1815

Epoch 190/250: 100%| | 570/570 [00:03<00:00, 176.07it/s]

[Feature Set: xydsc_5] Epoch [190/250] - Avg Loss: 0.1662

Epoch 191/250: 100%| | 570/570 [00:03<00:00, 178.52it/s]

[Feature Set: xydsc_5] Epoch [191/250] - Avg Loss: 0.1475

Epoch 192/250: 100%| | 570/570 [00:03<00:00, 178.70it/s]

[Feature Set: xydsc_5] Epoch [192/250] - Avg Loss: 0.2621

Epoch 193/250: 100%| | 570/570 [00:03<00:00, 179.16it/s]

[Feature Set: xydsc_5] Epoch [193/250] - Avg Loss: 0.1689

Epoch 194/250: 100%| | 570/570 [00:03<00:00, 177.68it/s]

[Feature Set: xydsc_5] Epoch [194/250] - Avg Loss: 0.2477

Epoch 195/250: 100%| | 570/570 [00:03<00:00, 179.52it/s]

[Feature Set: xydsc_5] Epoch [195/250] - Avg Loss: 0.2290

Epoch 196/250: 100%| | 570/570 [00:03<00:00, 179.16it/s]

[Feature Set: xydsc_5] Epoch [196/250] - Avg Loss: 0.1363

Epoch 197/250: 100%| | 570/570 [00:03<00:00, 179.62it/s]

[Feature Set: xydsc_5] Epoch [197/250] - Avg Loss: 0.1885

Epoch 198/250: 100%| | 570/570 [00:03<00:00, 178.15it/s]

[Feature Set: xydsc_5] Epoch [198/250] - Avg Loss: 0.2161

Epoch 199/250: 100%| | 570/570 [00:03<00:00, 179.21it/s]

[Feature Set: xydsc_5] Epoch [199/250] - Avg Loss: 0.2409

Epoch 200/250: 100%| | 570/570 [00:03<00:00, 178.96it/s]

[Feature Set: xydsc_5] Epoch [200/250] - Avg Loss: 0.1779

Epoch 201/250: 100%| | 570/570 [00:03<00:00, 179.24it/s]

[Feature Set: xydsc_5] Epoch [201/250] - Avg Loss: 0.1286

Epoch 202/250: 100%| | 570/570 [00:03<00:00, 177.59it/s]

[Feature Set: xydsc_5] Epoch [202/250] - Avg Loss: 0.1730

Epoch 203/250: 100%| | 570/570 [00:03<00:00, 178.89it/s]

[Feature Set: xydsc_5] Epoch [203/250] - Avg Loss: 0.4512

Epoch 204/250: 100%| | 570/570 [00:03<00:00, 178.82it/s]

[Feature Set: xydsc_5] Epoch [204/250] - Avg Loss: 0.2755

Epoch 205/250: 100%| | 570/570 [00:03<00:00, 175.06it/s]

[Feature Set: xydsc_5] Epoch [205/250] - Avg Loss: 0.5248

Epoch 206/250: 100%| | 570/570 [00:03<00:00, 178.92it/s]

[Feature Set: xydsc_5] Epoch [206/250] - Avg Loss: 0.4373

Epoch 207/250: 100%| | 570/570 [00:03<00:00, 178.79it/s]

[Feature Set: xydsc_5] Epoch [207/250] - Avg Loss: 0.2351

Epoch 208/250: 100%| | 570/570 [00:03<00:00, 179.25it/s]

[Feature Set: xydsc_5] Epoch [208/250] - Avg Loss: 0.1746

Epoch 209/250: 100%| | 570/570 [00:03<00:00, 177.28it/s]

[Feature Set: xydsc_5] Epoch [209/250] - Avg Loss: 0.1920

Epoch 210/250: 100%| | 570/570 [00:03<00:00, 178.98it/s]

[Feature Set: xydsc_5] Epoch [210/250] - Avg Loss: 0.2784

Epoch 211/250: 100%| | 570/570 [00:03<00:00, 178.94it/s]

[Feature Set: xydsc_5] Epoch [211/250] - Avg Loss: 0.1744

Epoch 212/250: 100%| | 570/570 [00:03<00:00, 178.76it/s]

[Feature Set: xydsc_5] Epoch [212/250] - Avg Loss: 0.1981

Epoch 213/250: 100%| | 570/570 [00:03<00:00, 175.10it/s]

[Feature Set: xydsc_5] Epoch [213/250] - Avg Loss: 0.2933

Epoch 214/250: 100%| | 570/570 [00:03<00:00, 178.99it/s]

[Feature Set: xydsc_5] Epoch [214/250] - Avg Loss: 0.2685

Epoch 215/250: 100%| | 570/570 [00:03<00:00, 178.82it/s]

[Feature Set: xydsc_5] Epoch [215/250] - Avg Loss: 0.2545

Epoch 216/250: 100%| | 570/570 [00:03<00:00, 177.20it/s]

[Feature Set: xydsc_5] Epoch [216/250] - Avg Loss: 0.1908

Epoch 217/250: 100%| | 570/570 [00:03<00:00, 178.52it/s]

[Feature Set: xydsc_5] Epoch [217/250] - Avg Loss: 0.3750

Epoch 218/250: 100%| | 570/570 [00:03<00:00, 178.81it/s]

[Feature Set: xydsc_5] Epoch [218/250] - Avg Loss: 0.1738

Epoch 219/250: 100%| | 570/570 [00:03<00:00, 179.14it/s]

[Feature Set: xydsc_5] Epoch [219/250] - Avg Loss: 0.3103

Epoch 220/250: 100%| | 570/570 [00:03<00:00, 177.68it/s]

[Feature Set: xydsc_5] Epoch [220/250] - Avg Loss: 0.2758

Epoch 221/250: 100%| | 570/570 [00:03<00:00, 179.17it/s]

[Feature Set: xydsc_5] Epoch [221/250] - Avg Loss: 0.1968

Epoch 222/250: 100%| | 570/570 [00:03<00:00, 179.18it/s]

[Feature Set: xydsc_5] Epoch [222/250] - Avg Loss: 0.1954

Epoch 223/250: 100%| | 570/570 [00:03<00:00, 177.32it/s]

[Feature Set: xydsc_5] Epoch [223/250] - Avg Loss: 0.1763

Epoch 224/250: 100%| | 570/570 [00:03<00:00, 178.89it/s]

[Feature Set: xydsc_5] Epoch [224/250] - Avg Loss: 0.1744

Epoch 225/250: 100%| | 570/570 [00:03<00:00, 178.39it/s]

[Feature Set: xydsc_5] Epoch [225/250] - Avg Loss: 0.1786

Epoch 226/250: 100%| | 570/570 [00:03<00:00, 178.53it/s]

[Feature Set: xydsc_5] Epoch [226/250] - Avg Loss: 0.1556

Epoch 227/250: 100%| | 570/570 [00:03<00:00, 177.39it/s]

[Feature Set: xydsc_5] Epoch [227/250] - Avg Loss: 0.1598

Epoch 228/250: 100%| | 570/570 [00:03<00:00, 177.30it/s]

[Feature Set: xydsc_5] Epoch [228/250] - Avg Loss: 0.3482

Epoch 229/250: 100%| | 570/570 [00:03<00:00, 178.41it/s]

[Feature Set: xydsc_5] Epoch [229/250] - Avg Loss: 0.1692

Epoch 230/250: 100%| | 570/570 [00:03<00:00, 178.29it/s]

[Feature Set: xydsc_5] Epoch [230/250] - Avg Loss: 0.2088

Epoch 231/250: 100%| | 570/570 [00:03<00:00, 176.95it/s]

[Feature Set: xydsc_5] Epoch [231/250] - Avg Loss: 0.1756

Epoch 232/250: 100%| | 570/570 [00:03<00:00, 178.50it/s]

[Feature Set: xydsc_5] Epoch [232/250] - Avg Loss: 0.2584

Epoch 233/250: 100%| | 570/570 [00:03<00:00, 178.83it/s]

[Feature Set: xydsc_5] Epoch [233/250] - Avg Loss: 0.1583

Epoch 234/250: 100%| | 570/570 [00:03<00:00, 178.69it/s]

[Feature Set: xydsc_5] Epoch [234/250] - Avg Loss: 0.3986

Epoch 235/250: 100%| | 570/570 [00:03<00:00, 177.52it/s]

[Feature Set: xydsc_5] Epoch [235/250] - Avg Loss: 0.2609

Epoch 236/250: 100%| | 570/570 [00:03<00:00, 178.93it/s]

[Feature Set: xydsc_5] Epoch [236/250] - Avg Loss: 0.1090

Epoch 237/250: 100%| | 570/570 [00:03<00:00, 178.89it/s]

[Feature Set: xydsc_5] Epoch [237/250] - Avg Loss: 0.1703

Epoch 238/250: 100%| | 570/570 [00:03<00:00, 177.65it/s]

[Feature Set: xydsc_5] Epoch [238/250] - Avg Loss: 0.3360

Epoch 239/250: 100%| | 570/570 [00:03<00:00, 176.94it/s]

[Feature Set: xydsc_5] Epoch [239/250] - Avg Loss: 0.2081

Epoch 240/250: 100%| | 570/570 [00:03<00:00, 178.74it/s]

[Feature Set: xydsc_5] Epoch [240/250] - Avg Loss: 0.1960

Epoch 241/250: 100%| | 570/570 [00:03<00:00, 179.00it/s]

[Feature Set: xydsc_5] Epoch [241/250] - Avg Loss: 0.3020

Epoch 242/250: 100%| | 570/570 [00:03<00:00, 174.92it/s]

[Feature Set: xydsc_5] Epoch [242/250] - Avg Loss: 0.2017

Epoch 243/250: 100%| | 570/570 [00:03<00:00, 178.58it/s]

[Feature Set: xydsc_5] Epoch [243/250] - Avg Loss: 0.2150

Epoch 244/250: 100%| | 570/570 [00:03<00:00, 178.93it/s]

[Feature Set: xydsc_5] Epoch [244/250] - Avg Loss: 0.2006

Epoch 245/250: 100%| | 570/570 [00:03<00:00, 178.97it/s]

[Feature Set: xydsc_5] Epoch [245/250] - Avg Loss: 0.1246

Epoch 246/250: 100%| | 570/570 [00:03<00:00, 177.26it/s]

[Feature Set: xydsc_5] Epoch [246/250] - Avg Loss: 0.1171

Epoch 247/250: 100%| | 570/570 [00:03<00:00, 178.54it/s]

[Feature Set: xydsc_5] Epoch [247/250] - Avg Loss: 0.2457

Epoch 248/250: 100%| | 570/570 [00:03<00:00, 179.04it/s]

[Feature Set: xydsc_5] Epoch [248/250] - Avg Loss: 0.5072

Epoch 249/250: 100%| | 570/570 [00:03<00:00, 177.75it/s]

[Feature Set: xydsc_5] Epoch [249/250] - Avg Loss: 0.2229

Epoch 250/250: 100%| | 570/570 [00:03<00:00, 179.18it/s]

[Feature Set: xydsc_5] Epoch [250/250] - Avg Loss: 0.1422

[Eval] xydsc_5: 100%| | 143/143 [00:00<00:00, 331.00it/s]

Epoch 1/250: 100%| | 570/570 [00:03<00:00, 177.48it/s]

[Feature Set: xydi_3] Epoch [1/250] - Avg Loss: 0.6802
Epoch 2/250: 100%| | 570/570 [00:03<00:00, 177.78it/s]

[Feature Set: xydi_3] Epoch [2/250] - Avg Loss: 0.6721
Epoch 3/250: 100%| | 570/570 [00:03<00:00, 172.23it/s]

[Feature Set: xydi_3] Epoch [3/250] - Avg Loss: 0.6667
Epoch 4/250: 100%| | 570/570 [00:03<00:00, 177.35it/s]

[Feature Set: xydi_3] Epoch [4/250] - Avg Loss: 0.6753
Epoch 5/250: 100%| | 570/570 [00:03<00:00, 176.88it/s]

[Feature Set: xydi_3] Epoch [5/250] - Avg Loss: 0.6663
Epoch 6/250: 100%| | 570/570 [00:03<00:00, 177.49it/s]

[Feature Set: xydi_3] Epoch [6/250] - Avg Loss: 0.6627
Epoch 7/250: 100%| | 570/570 [00:03<00:00, 175.45it/s]

[Feature Set: xydi_3] Epoch [7/250] - Avg Loss: 0.6632
Epoch 8/250: 100%| | 570/570 [00:03<00:00, 177.95it/s]

[Feature Set: xydi_3] Epoch [8/250] - Avg Loss: 0.6563
Epoch 9/250: 100%| | 570/570 [00:03<00:00, 177.04it/s]

[Feature Set: xydi_3] Epoch [9/250] - Avg Loss: 0.6496
Epoch 10/250: 100%| | 570/570 [00:03<00:00, 175.71it/s]

[Feature Set: xydi_3] Epoch [10/250] - Avg Loss: 0.6461
Epoch 11/250: 100%| | 570/570 [00:03<00:00, 176.12it/s]

[Feature Set: xydi_3] Epoch [11/250] - Avg Loss: 0.6509
Epoch 12/250: 100%| | 570/570 [00:03<00:00, 178.19it/s]

[Feature Set: xydi_3] Epoch [12/250] - Avg Loss: 0.6353
Epoch 13/250: 100%| | 570/570 [00:03<00:00, 177.61it/s]

[Feature Set: xydi_3] Epoch [13/250] - Avg Loss: 0.6238
Epoch 14/250: 100%| | 570/570 [00:03<00:00, 175.97it/s]

[Feature Set: xydi_3] Epoch [14/250] - Avg Loss: 0.6183
Epoch 15/250: 100%| | 570/570 [00:03<00:00, 177.28it/s]

[Feature Set: xydi_3] Epoch [15/250] - Avg Loss: 0.6078
Epoch 16/250: 100%| | 570/570 [00:03<00:00, 176.50it/s]

[Feature Set: xydi_3] Epoch [16/250] - Avg Loss: 0.5976
Epoch 17/250: 100%| | 570/570 [00:03<00:00, 169.01it/s]

[Feature Set: xydi_3] Epoch [17/250] - Avg Loss: 0.5768
Epoch 18/250: 100%| | 570/570 [00:03<00:00, 179.75it/s]

[Feature Set: xydi_3] Epoch [18/250] - Avg Loss: 0.5727
Epoch 19/250: 100%| | 570/570 [00:03<00:00, 180.19it/s]

[Feature Set: xydi_3] Epoch [19/250] - Avg Loss: 0.5599
Epoch 20/250: 100%| | 570/570 [00:03<00:00, 170.90it/s]

[Feature Set: xydi_3] Epoch [20/250] - Avg Loss: 0.5445
Epoch 21/250: 100%| | 570/570 [00:03<00:00, 178.83it/s]

[Feature Set: xydi_3] Epoch [21/250] - Avg Loss: 0.5263
Epoch 22/250: 100%| | 570/570 [00:03<00:00, 179.18it/s]

[Feature Set: xydi_3] Epoch [22/250] - Avg Loss: 0.5011
Epoch 23/250: 100%| | 570/570 [00:04<00:00, 133.02it/s]

[Feature Set: xydi_3] Epoch [23/250] - Avg Loss: 0.5824
Epoch 24/250: 100%| | 570/570 [00:03<00:00, 179.45it/s]

[Feature Set: xydi_3] Epoch [24/250] - Avg Loss: 0.5258
Epoch 25/250: 100%| | 570/570 [00:04<00:00, 123.28it/s]

[Feature Set: xydi_3] Epoch [25/250] - Avg Loss: 0.5106
Epoch 26/250: 100%| | 570/570 [00:03<00:00, 180.61it/s]

[Feature Set: xydi_3] Epoch [26/250] - Avg Loss: 0.5495
Epoch 27/250: 100%| | 570/570 [00:03<00:00, 181.53it/s]

[Feature Set: xydi_3] Epoch [27/250] - Avg Loss: 0.5226
Epoch 28/250: 100%| | 570/570 [00:03<00:00, 180.21it/s]

[Feature Set: xydi_3] Epoch [28/250] - Avg Loss: 0.5501
Epoch 29/250: 100%| | 570/570 [00:03<00:00, 181.68it/s]

[Feature Set: xydi_3] Epoch [29/250] - Avg Loss: 0.5053
Epoch 30/250: 100%| | 570/570 [00:03<00:00, 181.46it/s]

[Feature Set: xydi_3] Epoch [30/250] - Avg Loss: 0.5283
Epoch 31/250: 100%| | 570/570 [00:03<00:00, 181.56it/s]

[Feature Set: xydi_3] Epoch [31/250] - Avg Loss: 0.4960
Epoch 32/250: 100%| | 570/570 [00:03<00:00, 180.06it/s]

[Feature Set: xydi_3] Epoch [32/250] - Avg Loss: 0.5167
Epoch 33/250: 100%| | 570/570 [00:03<00:00, 181.59it/s]

[Feature Set: xydi_3] Epoch [33/250] - Avg Loss: 0.4585
Epoch 34/250: 100%| | 570/570 [00:03<00:00, 181.06it/s]

[Feature Set: xydi_3] Epoch [34/250] - Avg Loss: 0.4784
Epoch 35/250: 100%| | 570/570 [00:03<00:00, 181.12it/s]

[Feature Set: xydi_3] Epoch [35/250] - Avg Loss: 0.4632
Epoch 36/250: 100%| | 570/570 [00:03<00:00, 178.53it/s]

[Feature Set: xydi_3] Epoch [36/250] - Avg Loss: 0.4691
Epoch 37/250: 100%| | 570/570 [12:18<00:00, 1.30s/it]

[Feature Set: xydi_3] Epoch [37/250] - Avg Loss: 0.4071
Epoch 38/250: 100%| | 570/570 [00:03<00:00, 161.43it/s]

[Feature Set: xydi_3] Epoch [38/250] - Avg Loss: 0.4159
Epoch 39/250: 100%| | 570/570 [00:03<00:00, 174.79it/s]

[Feature Set: xydi_3] Epoch [39/250] - Avg Loss: 0.4570
Epoch 40/250: 100%| | 570/570 [00:03<00:00, 155.86it/s]

[Feature Set: xydi_3] Epoch [40/250] - Avg Loss: 0.4225
Epoch 41/250: 100%| | 570/570 [00:03<00:00, 155.56it/s]

[Feature Set: xydi_3] Epoch [41/250] - Avg Loss: 0.4708
Epoch 42/250: 100%| | 570/570 [00:03<00:00, 162.08it/s]

[Feature Set: xydi_3] Epoch [42/250] - Avg Loss: 0.4268
Epoch 43/250: 100%| | 570/570 [00:03<00:00, 165.18it/s]

[Feature Set: xydi_3] Epoch [43/250] - Avg Loss: 0.4224
Epoch 44/250: 100%| | 570/570 [00:03<00:00, 174.32it/s]

[Feature Set: xydi_3] Epoch [44/250] - Avg Loss: 0.3739
Epoch 45/250: 100%| | 570/570 [00:03<00:00, 168.30it/s]

[Feature Set: xydi_3] Epoch [45/250] - Avg Loss: 0.3247
Epoch 46/250: 100%| | 570/570 [00:03<00:00, 168.34it/s]

[Feature Set: xydi_3] Epoch [46/250] - Avg Loss: 0.4008
Epoch 47/250: 100%| | 570/570 [00:03<00:00, 174.75it/s]

[Feature Set: xydi_3] Epoch [47/250] - Avg Loss: 0.3124
Epoch 48/250: 100%| | 570/570 [00:03<00:00, 180.05it/s]

[Feature Set: xydi_3] Epoch [48/250] - Avg Loss: 0.3737
Epoch 49/250: 100%| | 570/570 [00:03<00:00, 180.64it/s]

[Feature Set: xydi_3] Epoch [49/250] - Avg Loss: 0.3683
Epoch 50/250: 100%| | 570/570 [00:03<00:00, 179.66it/s]

[Feature Set: xydi_3] Epoch [50/250] - Avg Loss: 0.3693
Epoch 51/250: 100%| | 570/570 [00:03<00:00, 178.85it/s]

[Feature Set: xydi_3] Epoch [51/250] - Avg Loss: 0.3594
Epoch 52/250: 100%| | 570/570 [00:03<00:00, 181.41it/s]

[Feature Set: xydi_3] Epoch [52/250] - Avg Loss: 0.3956
Epoch 53/250: 100%| | 570/570 [00:03<00:00, 181.25it/s]

[Feature Set: xydi_3] Epoch [53/250] - Avg Loss: 0.3223
Epoch 54/250: 100%| | 570/570 [00:03<00:00, 181.54it/s]

[Feature Set: xydi_3] Epoch [54/250] - Avg Loss: 0.4315
Epoch 55/250: 100%| | 570/570 [00:03<00:00, 179.57it/s]

[Feature Set: xydi_3] Epoch [55/250] - Avg Loss: 0.3667
Epoch 56/250: 100%| | 570/570 [00:03<00:00, 177.78it/s]

[Feature Set: xydi_3] Epoch [56/250] - Avg Loss: 0.3619
Epoch 57/250: 100%| | 570/570 [00:03<00:00, 180.69it/s]

[Feature Set: xydi_3] Epoch [57/250] - Avg Loss: 0.2986
Epoch 58/250: 100%| | 570/570 [00:03<00:00, 179.14it/s]

[Feature Set: xydi_3] Epoch [58/250] - Avg Loss: 0.3033
Epoch 59/250: 100%| | 570/570 [00:03<00:00, 181.55it/s]

[Feature Set: xydi_3] Epoch [59/250] - Avg Loss: 0.3059
Epoch 60/250: 100%| | 570/570 [00:03<00:00, 180.28it/s]

[Feature Set: xydi_3] Epoch [60/250] - Avg Loss: 0.3721
Epoch 61/250: 100%| | 570/570 [00:03<00:00, 181.06it/s]

[Feature Set: xydi_3] Epoch [61/250] - Avg Loss: 0.3273
Epoch 62/250: 100%| | 570/570 [00:03<00:00, 172.40it/s]

[Feature Set: xydi_3] Epoch [62/250] - Avg Loss: 0.3021
Epoch 63/250: 100%| | 570/570 [00:04<00:00, 118.25it/s]

[Feature Set: xydi_3] Epoch [63/250] - Avg Loss: 0.3102
Epoch 64/250: 100%| | 570/570 [00:03<00:00, 175.46it/s]

[Feature Set: xydi_3] Epoch [64/250] - Avg Loss: 0.2821
Epoch 65/250: 100%| | 570/570 [00:03<00:00, 178.55it/s]

[Feature Set: xydi_3] Epoch [65/250] - Avg Loss: 0.5343
Epoch 66/250: 100%| | 570/570 [00:03<00:00, 181.13it/s]

[Feature Set: xydi_3] Epoch [66/250] - Avg Loss: 0.3648
Epoch 67/250: 100%| | 570/570 [00:03<00:00, 180.72it/s]

[Feature Set: xydi_3] Epoch [67/250] - Avg Loss: 0.2872
Epoch 68/250: 100%| | 570/570 [00:03<00:00, 176.90it/s]

[Feature Set: xydi_3] Epoch [68/250] - Avg Loss: 0.2794
Epoch 69/250: 100%| | 570/570 [00:03<00:00, 180.96it/s]

[Feature Set: xydi_3] Epoch [69/250] - Avg Loss: 0.3367
Epoch 70/250: 100%| | 570/570 [00:03<00:00, 177.32it/s]

[Feature Set: xydi_3] Epoch [70/250] - Avg Loss: 0.3406
Epoch 71/250: 100%| | 570/570 [00:03<00:00, 173.91it/s]

[Feature Set: xydi_3] Epoch [71/250] - Avg Loss: 0.2752
Epoch 72/250: 100%| | 570/570 [00:03<00:00, 170.45it/s]

[Feature Set: xydi_3] Epoch [72/250] - Avg Loss: 0.2963
Epoch 73/250: 100%| | 570/570 [00:03<00:00, 180.96it/s]

[Feature Set: xydi_3] Epoch [73/250] - Avg Loss: 0.3220
Epoch 74/250: 100%| | 570/570 [00:03<00:00, 180.51it/s]

[Feature Set: xydi_3] Epoch [74/250] - Avg Loss: 0.2911
Epoch 75/250: 100%| | 570/570 [00:03<00:00, 178.70it/s]

[Feature Set: xydi_3] Epoch [75/250] - Avg Loss: 0.3643
Epoch 76/250: 100%| | 570/570 [00:03<00:00, 177.41it/s]

[Feature Set: xydi_3] Epoch [76/250] - Avg Loss: 0.3621
Epoch 77/250: 100%| | 570/570 [00:03<00:00, 179.42it/s]

[Feature Set: xydi_3] Epoch [77/250] - Avg Loss: 0.2709
Epoch 78/250: 100%| | 570/570 [00:03<00:00, 181.17it/s]

[Feature Set: xydi_3] Epoch [78/250] - Avg Loss: 0.2848
Epoch 79/250: 100%| | 570/570 [00:03<00:00, 180.35it/s]

[Feature Set: xydi_3] Epoch [79/250] - Avg Loss: 0.2928
Epoch 80/250: 100%| | 570/570 [00:03<00:00, 179.24it/s]

[Feature Set: xydi_3] Epoch [80/250] - Avg Loss: 0.2445
Epoch 81/250: 100%| | 570/570 [00:03<00:00, 181.47it/s]

[Feature Set: xydi_3] Epoch [81/250] - Avg Loss: 0.3012
Epoch 82/250: 100%| | 570/570 [00:03<00:00, 181.08it/s]

[Feature Set: xydi_3] Epoch [82/250] - Avg Loss: 0.2923
Epoch 83/250: 100%| | 570/570 [00:03<00:00, 178.85it/s]

[Feature Set: xydi_3] Epoch [83/250] - Avg Loss: 0.2524
Epoch 84/250: 100%| | 570/570 [00:03<00:00, 180.29it/s]

[Feature Set: xydi_3] Epoch [84/250] - Avg Loss: 0.2969
Epoch 85/250: 100%| | 570/570 [00:03<00:00, 181.82it/s]

[Feature Set: xydi_3] Epoch [85/250] - Avg Loss: 0.2381
Epoch 86/250: 100%| | 570/570 [00:03<00:00, 181.38it/s]

[Feature Set: xydi_3] Epoch [86/250] - Avg Loss: 0.2311
Epoch 87/250: 100%| | 570/570 [00:03<00:00, 180.23it/s]

[Feature Set: xydi_3] Epoch [87/250] - Avg Loss: 0.2692
Epoch 88/250: 100%| | 570/570 [00:03<00:00, 182.12it/s]

[Feature Set: xydi_3] Epoch [88/250] - Avg Loss: 0.3783
Epoch 89/250: 100%| | 570/570 [00:03<00:00, 181.54it/s]

[Feature Set: xydi_3] Epoch [89/250] - Avg Loss: 0.3306
Epoch 90/250: 100%| | 570/570 [00:03<00:00, 179.69it/s]

[Feature Set: xydi_3] Epoch [90/250] - Avg Loss: 0.3039
Epoch 91/250: 100%| | 570/570 [00:03<00:00, 181.18it/s]

[Feature Set: xydi_3] Epoch [91/250] - Avg Loss: 0.3283
Epoch 92/250: 100%| | 570/570 [00:03<00:00, 181.56it/s]

[Feature Set: xydi_3] Epoch [92/250] - Avg Loss: 0.2516
Epoch 93/250: 100%| | 570/570 [00:03<00:00, 177.84it/s]

[Feature Set: xydi_3] Epoch [93/250] - Avg Loss: 0.2854
Epoch 94/250: 100%| | 570/570 [00:03<00:00, 179.49it/s]

[Feature Set: xydi_3] Epoch [94/250] - Avg Loss: 0.2670
Epoch 95/250: 100%| | 570/570 [00:03<00:00, 181.32it/s]

[Feature Set: xydi_3] Epoch [95/250] - Avg Loss: 0.2349
Epoch 96/250: 100%| | 570/570 [00:03<00:00, 180.55it/s]

[Feature Set: xydi_3] Epoch [96/250] - Avg Loss: 0.2715
Epoch 97/250: 100%| | 570/570 [00:03<00:00, 175.43it/s]

[Feature Set: xydi_3] Epoch [97/250] - Avg Loss: 0.3191
Epoch 98/250: 100%| | 570/570 [00:03<00:00, 179.95it/s]

[Feature Set: xydi_3] Epoch [98/250] - Avg Loss: 0.2431
Epoch 99/250: 100%| | 570/570 [00:03<00:00, 176.44it/s]

[Feature Set: xydi_3] Epoch [99/250] - Avg Loss: 0.2607
Epoch 100/250: 100%| | 570/570 [00:03<00:00, 180.82it/s]

[Feature Set: xydi_3] Epoch [100/250] - Avg Loss: 0.3006
Epoch 101/250: 100%| | 570/570 [00:03<00:00, 173.97it/s]

[Feature Set: xydi_3] Epoch [101/250] - Avg Loss: 0.2318
Epoch 102/250: 100%| | 570/570 [00:03<00:00, 168.22it/s]

[Feature Set: xydi_3] Epoch [102/250] - Avg Loss: 0.3904
Epoch 103/250: 100%| | 570/570 [00:03<00:00, 170.98it/s]

[Feature Set: xydi_3] Epoch [103/250] - Avg Loss: 0.2516
Epoch 104/250: 100%| | 570/570 [00:03<00:00, 178.16it/s]

[Feature Set: xydi_3] Epoch [104/250] - Avg Loss: 0.2544
Epoch 105/250: 100%| | 570/570 [00:03<00:00, 175.75it/s]

[Feature Set: xydi_3] Epoch [105/250] - Avg Loss: 0.3408
Epoch 106/250: 100%| | 570/570 [00:03<00:00, 169.94it/s]

[Feature Set: xydi_3] Epoch [106/250] - Avg Loss: 0.2103
Epoch 107/250: 100%| | 570/570 [00:03<00:00, 171.29it/s]

[Feature Set: xydi_3] Epoch [107/250] - Avg Loss: 0.2003
Epoch 108/250: 100%| | 570/570 [00:03<00:00, 178.44it/s]

[Feature Set: xydi_3] Epoch [108/250] - Avg Loss: 0.2012
Epoch 109/250: 100%| | 570/570 [00:03<00:00, 174.32it/s]

[Feature Set: xydi_3] Epoch [109/250] - Avg Loss: 0.2144
Epoch 110/250: 100%| | 570/570 [00:03<00:00, 180.91it/s]

[Feature Set: xydi_3] Epoch [110/250] - Avg Loss: 0.2354
Epoch 111/250: 100%| | 570/570 [00:03<00:00, 180.93it/s]

[Feature Set: xydi_3] Epoch [111/250] - Avg Loss: 0.2303
Epoch 112/250: 100%| | 570/570 [00:03<00:00, 179.46it/s]

[Feature Set: xydi_3] Epoch [112/250] - Avg Loss: 0.1816
Epoch 113/250: 100%| | 570/570 [00:03<00:00, 181.08it/s]

[Feature Set: xydi_3] Epoch [113/250] - Avg Loss: 0.3050
Epoch 114/250: 100%| | 570/570 [00:03<00:00, 181.70it/s]

[Feature Set: xydi_3] Epoch [114/250] - Avg Loss: 0.2816
Epoch 115/250: 100%| | 570/570 [00:03<00:00, 179.03it/s]

[Feature Set: xydi_3] Epoch [115/250] - Avg Loss: 0.2246
Epoch 116/250: 100%| | 570/570 [00:03<00:00, 177.34it/s]

[Feature Set: xydi_3] Epoch [116/250] - Avg Loss: 0.3073
Epoch 117/250: 100%| | 570/570 [00:03<00:00, 181.58it/s]

[Feature Set: xydi_3] Epoch [117/250] - Avg Loss: 0.2498
Epoch 118/250: 100%| | 570/570 [00:03<00:00, 176.71it/s]

[Feature Set: xydi_3] Epoch [118/250] - Avg Loss: 0.1939
Epoch 119/250: 100%| | 570/570 [00:03<00:00, 173.52it/s]

[Feature Set: xydi_3] Epoch [119/250] - Avg Loss: 0.1691
Epoch 120/250: 100%| | 570/570 [00:03<00:00, 180.34it/s]

[Feature Set: xydi_3] Epoch [120/250] - Avg Loss: 0.2610
Epoch 121/250: 100%| | 570/570 [00:03<00:00, 180.69it/s]

[Feature Set: xydi_3] Epoch [121/250] - Avg Loss: 0.2244
Epoch 122/250: 100%| | 570/570 [00:03<00:00, 179.25it/s]

[Feature Set: xydi_3] Epoch [122/250] - Avg Loss: 0.2339
Epoch 123/250: 100%| | 570/570 [00:03<00:00, 181.29it/s]

[Feature Set: xydi_3] Epoch [123/250] - Avg Loss: 0.2854
Epoch 124/250: 100%| | 570/570 [00:03<00:00, 180.86it/s]

[Feature Set: xydi_3] Epoch [124/250] - Avg Loss: 0.2170
Epoch 125/250: 100%| | 570/570 [00:03<00:00, 181.38it/s]

[Feature Set: xydi_3] Epoch [125/250] - Avg Loss: 0.2022
Epoch 126/250: 100%| | 570/570 [00:03<00:00, 179.92it/s]

[Feature Set: xydi_3] Epoch [126/250] - Avg Loss: 0.1619
Epoch 127/250: 100%| | 570/570 [00:03<00:00, 178.75it/s]

[Feature Set: xydi_3] Epoch [127/250] - Avg Loss: 0.1601
Epoch 128/250: 100%| | 570/570 [00:03<00:00, 181.06it/s]

[Feature Set: xydi_3] Epoch [128/250] - Avg Loss: 0.1873
Epoch 129/250: 100%| | 570/570 [00:03<00:00, 180.10it/s]

[Feature Set: xydi_3] Epoch [129/250] - Avg Loss: 0.1920
Epoch 130/250: 100%| | 570/570 [00:03<00:00, 181.36it/s]

[Feature Set: xydi_3] Epoch [130/250] - Avg Loss: 0.3239
Epoch 131/250: 100%| | 570/570 [00:03<00:00, 181.13it/s]

[Feature Set: xydi_3] Epoch [131/250] - Avg Loss: 0.2386
Epoch 132/250: 100%| | 570/570 [00:03<00:00, 181.41it/s]

[Feature Set: xydi_3] Epoch [132/250] - Avg Loss: 0.2125
Epoch 133/250: 100%| | 570/570 [00:03<00:00, 179.62it/s]

[Feature Set: xydi_3] Epoch [133/250] - Avg Loss: 0.1725
Epoch 134/250: 100%| | 570/570 [00:03<00:00, 180.34it/s]

[Feature Set: xydi_3] Epoch [134/250] - Avg Loss: 0.2888
Epoch 135/250: 100%| | 570/570 [00:03<00:00, 181.32it/s]

[Feature Set: xydi_3] Epoch [135/250] - Avg Loss: 0.2170
Epoch 136/250: 100%| | 570/570 [00:03<00:00, 179.61it/s]

[Feature Set: xydi_3] Epoch [136/250] - Avg Loss: 0.2169
Epoch 137/250: 100%| | 570/570 [00:03<00:00, 181.30it/s]

[Feature Set: xydi_3] Epoch [137/250] - Avg Loss: 0.1959
Epoch 138/250: 100%| | 570/570 [00:03<00:00, 178.41it/s]

[Feature Set: xydi_3] Epoch [138/250] - Avg Loss: 0.1964
Epoch 139/250: 100%| | 570/570 [00:03<00:00, 179.93it/s]

[Feature Set: xydi_3] Epoch [139/250] - Avg Loss: 0.2505
Epoch 140/250: 100%| | 570/570 [00:03<00:00, 181.26it/s]

[Feature Set: xydi_3] Epoch [140/250] - Avg Loss: 0.1620
Epoch 141/250: 100%| | 570/570 [00:03<00:00, 181.56it/s]

[Feature Set: xydi_3] Epoch [141/250] - Avg Loss: 0.2591
Epoch 142/250: 100%| | 570/570 [00:03<00:00, 181.31it/s]

[Feature Set: xydi_3] Epoch [142/250] - Avg Loss: 0.3592
Epoch 143/250: 100%| | 570/570 [00:03<00:00, 179.79it/s]

[Feature Set: xydi_3] Epoch [143/250] - Avg Loss: 0.2214
Epoch 144/250: 100%| | 570/570 [00:03<00:00, 181.54it/s]

[Feature Set: xydi_3] Epoch [144/250] - Avg Loss: 0.2337
Epoch 145/250: 100%| | 570/570 [00:03<00:00, 181.51it/s]

[Feature Set: xydi_3] Epoch [145/250] - Avg Loss: 0.1655
Epoch 146/250: 100%| | 570/570 [00:03<00:00, 179.81it/s]

[Feature Set: xydi_3] Epoch [146/250] - Avg Loss: 0.2689
Epoch 147/250: 100%| | 570/570 [00:03<00:00, 181.07it/s]

[Feature Set: xydi_3] Epoch [147/250] - Avg Loss: 0.1612
Epoch 148/250: 100%| | 570/570 [00:03<00:00, 178.96it/s]

[Feature Set: xydi_3] Epoch [148/250] - Avg Loss: 0.2035
Epoch 149/250: 100%| | 570/570 [00:03<00:00, 181.04it/s]

[Feature Set: xydi_3] Epoch [149/250] - Avg Loss: 0.1420
Epoch 150/250: 100%| | 570/570 [00:03<00:00, 179.92it/s]

[Feature Set: xydi_3] Epoch [150/250] - Avg Loss: 0.2030
Epoch 151/250: 100%| | 570/570 [00:03<00:00, 181.17it/s]

[Feature Set: xydi_3] Epoch [151/250] - Avg Loss: 0.1765
Epoch 152/250: 100%| | 570/570 [00:03<00:00, 181.30it/s]

[Feature Set: xydi_3] Epoch [152/250] - Avg Loss: 0.1991
Epoch 153/250: 100%| | 570/570 [00:03<00:00, 179.15it/s]

[Feature Set: xydi_3] Epoch [153/250] - Avg Loss: 0.2160
Epoch 154/250: 100%| | 570/570 [00:03<00:00, 181.00it/s]

[Feature Set: xydi_3] Epoch [154/250] - Avg Loss: 0.2885
Epoch 155/250: 100%| | 570/570 [00:03<00:00, 180.15it/s]

[Feature Set: xydi_3] Epoch [155/250] - Avg Loss: 0.1888
Epoch 156/250: 100%| | 570/570 [00:03<00:00, 180.18it/s]

[Feature Set: xydi_3] Epoch [156/250] - Avg Loss: 0.2819
Epoch 157/250: 100%| | 570/570 [00:03<00:00, 178.56it/s]

[Feature Set: xydi_3] Epoch [157/250] - Avg Loss: 0.1474
Epoch 158/250: 100%| | 570/570 [00:03<00:00, 180.68it/s]

[Feature Set: xydi_3] Epoch [158/250] - Avg Loss: 0.1900
Epoch 159/250: 100%| | 570/570 [00:03<00:00, 175.68it/s]

[Feature Set: xydi_3] Epoch [159/250] - Avg Loss: 0.1646
Epoch 160/250: 100%| | 570/570 [00:03<00:00, 176.68it/s]

[Feature Set: xydi_3] Epoch [160/250] - Avg Loss: 0.1844
Epoch 161/250: 100%| | 570/570 [00:04<00:00, 121.98it/s]

[Feature Set: xydi_3] Epoch [161/250] - Avg Loss: 0.2056
Epoch 162/250: 100%| | 570/570 [00:03<00:00, 174.60it/s]

[Feature Set: xydi_3] Epoch [162/250] - Avg Loss: 0.1680
Epoch 163/250: 100%| | 570/570 [00:03<00:00, 178.68it/s]

[Feature Set: xydi_3] Epoch [163/250] - Avg Loss: 0.2349
Epoch 164/250: 100%| | 570/570 [00:03<00:00, 180.05it/s]

[Feature Set: xydi_3] Epoch [164/250] - Avg Loss: 0.1593
Epoch 165/250: 100%| | 570/570 [00:03<00:00, 173.90it/s]

[Feature Set: xydi_3] Epoch [165/250] - Avg Loss: 0.2096
Epoch 166/250: 100%| | 570/570 [00:03<00:00, 180.74it/s]

[Feature Set: xydi_3] Epoch [166/250] - Avg Loss: 0.2039
Epoch 167/250: 100%| | 570/570 [00:03<00:00, 180.58it/s]

[Feature Set: xydi_3] Epoch [167/250] - Avg Loss: 0.1726
Epoch 168/250: 100%| | 570/570 [00:03<00:00, 181.44it/s]

[Feature Set: xydi_3] Epoch [168/250] - Avg Loss: 0.2120
Epoch 169/250: 100%| | 570/570 [00:03<00:00, 178.03it/s]

[Feature Set: xydi_3] Epoch [169/250] - Avg Loss: 0.1405
Epoch 170/250: 100%| | 570/570 [00:03<00:00, 179.66it/s]

[Feature Set: xydi_3] Epoch [170/250] - Avg Loss: 0.2099
Epoch 171/250: 100%| | 570/570 [00:03<00:00, 180.61it/s]

[Feature Set: xydi_3] Epoch [171/250] - Avg Loss: 0.3053
Epoch 172/250: 100%| | 570/570 [00:03<00:00, 180.31it/s]

[Feature Set: xydi_3] Epoch [172/250] - Avg Loss: 0.1807
Epoch 173/250: 100%| | 570/570 [00:03<00:00, 175.22it/s]

[Feature Set: xydi_3] Epoch [173/250] - Avg Loss: 0.1674
Epoch 174/250: 100%| | 570/570 [00:03<00:00, 180.86it/s]

[Feature Set: xydi_3] Epoch [174/250] - Avg Loss: 0.1714
Epoch 175/250: 100%| | 570/570 [00:03<00:00, 180.07it/s]

[Feature Set: xydi_3] Epoch [175/250] - Avg Loss: 0.2017
Epoch 176/250: 100%| | 570/570 [00:03<00:00, 179.23it/s]

[Feature Set: xydi_3] Epoch [176/250] - Avg Loss: 0.1928
Epoch 177/250: 100%| | 570/570 [00:03<00:00, 179.63it/s]

[Feature Set: xydi_3] Epoch [177/250] - Avg Loss: 0.2039
Epoch 178/250: 100%| | 570/570 [00:03<00:00, 181.28it/s]

[Feature Set: xydi_3] Epoch [178/250] - Avg Loss: 0.3199
Epoch 179/250: 100%| | 570/570 [00:03<00:00, 179.88it/s]

[Feature Set: xydi_3] Epoch [179/250] - Avg Loss: 0.2268
Epoch 180/250: 100%| | 570/570 [00:03<00:00, 181.39it/s]

[Feature Set: xydi_3] Epoch [180/250] - Avg Loss: 0.2301
Epoch 181/250: 100%| | 570/570 [00:03<00:00, 181.46it/s]

[Feature Set: xydi_3] Epoch [181/250] - Avg Loss: 0.1728
Epoch 182/250: 100%| | 570/570 [00:03<00:00, 181.74it/s]

[Feature Set: xydi_3] Epoch [182/250] - Avg Loss: 0.1542
Epoch 183/250: 100%| | 570/570 [00:03<00:00, 179.82it/s]

[Feature Set: xydi_3] Epoch [183/250] - Avg Loss: 0.1440
Epoch 184/250: 100%| | 570/570 [00:03<00:00, 181.35it/s]

[Feature Set: xydi_3] Epoch [184/250] - Avg Loss: 0.2240
Epoch 185/250: 100%| | 570/570 [00:03<00:00, 181.28it/s]

[Feature Set: xydi_3] Epoch [185/250] - Avg Loss: 0.1145
Epoch 186/250: 100%| | 570/570 [00:03<00:00, 181.23it/s]

[Feature Set: xydi_3] Epoch [186/250] - Avg Loss: 0.1837
Epoch 187/250: 100%| | 570/570 [00:03<00:00, 179.43it/s]

[Feature Set: xydi_3] Epoch [187/250] - Avg Loss: 0.1648
Epoch 188/250: 100%| | 570/570 [00:03<00:00, 181.31it/s]

[Feature Set: xydi_3] Epoch [188/250] - Avg Loss: 0.2594
Epoch 189/250: 100%| | 570/570 [00:03<00:00, 181.46it/s]

[Feature Set: xydi_3] Epoch [189/250] - Avg Loss: 0.1667
Epoch 190/250: 100%| | 570/570 [00:03<00:00, 177.09it/s]

[Feature Set: xydi_3] Epoch [190/250] - Avg Loss: 0.1754
Epoch 191/250: 100%| | 570/570 [00:03<00:00, 181.23it/s]

[Feature Set: xydi_3] Epoch [191/250] - Avg Loss: 0.2939
Epoch 192/250: 100%| | 570/570 [00:03<00:00, 181.25it/s]

[Feature Set: xydi_3] Epoch [192/250] - Avg Loss: 0.2204
Epoch 193/250: 100%| | 570/570 [00:03<00:00, 181.39it/s]

[Feature Set: xydi_3] Epoch [193/250] - Avg Loss: 0.1475
Epoch 194/250: 100%| | 570/570 [00:03<00:00, 179.60it/s]

[Feature Set: xydi_3] Epoch [194/250] - Avg Loss: 0.2138
Epoch 195/250: 100%| | 570/570 [00:03<00:00, 180.79it/s]

[Feature Set: xydi_3] Epoch [195/250] - Avg Loss: 0.2384
Epoch 196/250: 100%| | 570/570 [00:03<00:00, 181.42it/s]

[Feature Set: xydi_3] Epoch [196/250] - Avg Loss: 0.2277
Epoch 197/250: 100%| | 570/570 [00:03<00:00, 179.74it/s]

[Feature Set: xydi_3] Epoch [197/250] - Avg Loss: 0.1818
Epoch 198/250: 100%| | 570/570 [00:03<00:00, 181.13it/s]

[Feature Set: xydi_3] Epoch [198/250] - Avg Loss: 0.1207
Epoch 199/250: 100%| | 570/570 [00:03<00:00, 181.15it/s]

[Feature Set: xydi_3] Epoch [199/250] - Avg Loss: 0.1465
Epoch 200/250: 100%| | 570/570 [00:03<00:00, 181.42it/s]

[Feature Set: xydi_3] Epoch [200/250] - Avg Loss: 0.3189
Epoch 201/250: 100%| | 570/570 [00:03<00:00, 179.77it/s]

[Feature Set: xydi_3] Epoch [201/250] - Avg Loss: 0.2445
Epoch 202/250: 100%| | 570/570 [00:03<00:00, 181.29it/s]

[Feature Set: xydi_3] Epoch [202/250] - Avg Loss: 0.3172
Epoch 203/250: 100%| | 570/570 [00:03<00:00, 181.38it/s]

[Feature Set: xydi_3] Epoch [203/250] - Avg Loss: 0.1955
Epoch 204/250: 100%| | 570/570 [00:03<00:00, 179.72it/s]

[Feature Set: xydi_3] Epoch [204/250] - Avg Loss: 0.1327
Epoch 205/250: 100%| | 570/570 [00:03<00:00, 181.34it/s]

[Feature Set: xydi_3] Epoch [205/250] - Avg Loss: 0.2292
Epoch 206/250: 100%| | 570/570 [00:03<00:00, 181.13it/s]

[Feature Set: xydi_3] Epoch [206/250] - Avg Loss: 0.2157
Epoch 207/250: 100%| | 570/570 [00:03<00:00, 181.38it/s]

[Feature Set: xydi_3] Epoch [207/250] - Avg Loss: 0.1413
Epoch 208/250: 100%| | 570/570 [00:03<00:00, 179.60it/s]

[Feature Set: xydi_3] Epoch [208/250] - Avg Loss: 0.1741
Epoch 209/250: 100%| | 570/570 [00:03<00:00, 181.39it/s]

[Feature Set: xydi_3] Epoch [209/250] - Avg Loss: 0.1163
Epoch 210/250: 100%| | 570/570 [00:03<00:00, 180.94it/s]

[Feature Set: xydi_3] Epoch [210/250] - Avg Loss: 0.1641
Epoch 211/250: 100%| | 570/570 [00:03<00:00, 181.64it/s]

[Feature Set: xydi_3] Epoch [211/250] - Avg Loss: 0.2690
Epoch 212/250: 100%| | 570/570 [00:03<00:00, 179.92it/s]

[Feature Set: xydi_3] Epoch [212/250] - Avg Loss: 0.1787
Epoch 213/250: 100%| | 570/570 [00:03<00:00, 180.13it/s]

[Feature Set: xydi_3] Epoch [213/250] - Avg Loss: 0.2091
Epoch 214/250: 100%| | 570/570 [00:03<00:00, 181.45it/s]

[Feature Set: xydi_3] Epoch [214/250] - Avg Loss: 0.1715
Epoch 215/250: 100%| | 570/570 [00:03<00:00, 179.63it/s]

[Feature Set: xydi_3] Epoch [215/250] - Avg Loss: 0.2338
Epoch 216/250: 100%| | 570/570 [00:03<00:00, 181.79it/s]

[Feature Set: xydi_3] Epoch [216/250] - Avg Loss: 0.2045
Epoch 217/250: 100%| | 570/570 [00:03<00:00, 181.49it/s]

[Feature Set: xydi_3] Epoch [217/250] - Avg Loss: 0.1803
Epoch 218/250: 100%| | 570/570 [00:03<00:00, 181.21it/s]

[Feature Set: xydi_3] Epoch [218/250] - Avg Loss: 0.1396
Epoch 219/250: 100%| | 570/570 [00:03<00:00, 179.37it/s]

[Feature Set: xydi_3] Epoch [219/250] - Avg Loss: 0.1584
Epoch 220/250: 100%| | 570/570 [00:03<00:00, 181.23it/s]

[Feature Set: xydi_3] Epoch [220/250] - Avg Loss: 0.2220
Epoch 221/250: 100%| | 570/570 [00:03<00:00, 181.67it/s]

[Feature Set: xydi_3] Epoch [221/250] - Avg Loss: 0.3237
Epoch 222/250: 100%| | 570/570 [00:03<00:00, 179.28it/s]

[Feature Set: xydi_3] Epoch [222/250] - Avg Loss: 0.2889
Epoch 223/250: 100%| | 570/570 [00:03<00:00, 181.41it/s]

[Feature Set: xydi_3] Epoch [223/250] - Avg Loss: 0.2265
Epoch 224/250: 100%| | 570/570 [00:03<00:00, 181.60it/s]

[Feature Set: xydi_3] Epoch [224/250] - Avg Loss: 0.2457
Epoch 225/250: 100%| | 570/570 [00:03<00:00, 181.39it/s]

[Feature Set: xydi_3] Epoch [225/250] - Avg Loss: 0.1527
Epoch 226/250: 100%| | 570/570 [00:03<00:00, 179.61it/s]

[Feature Set: xydi_3] Epoch [226/250] - Avg Loss: 0.1950
Epoch 227/250: 100%| | 570/570 [00:03<00:00, 181.75it/s]

[Feature Set: xydi_3] Epoch [227/250] - Avg Loss: 0.1570
Epoch 228/250: 100%| | 570/570 [00:03<00:00, 181.56it/s]

[Feature Set: xydi_3] Epoch [228/250] - Avg Loss: 0.1431
Epoch 229/250: 100%| | 570/570 [00:03<00:00, 178.24it/s]

[Feature Set: xydi_3] Epoch [229/250] - Avg Loss: 0.2104
Epoch 230/250: 100%| | 570/570 [00:03<00:00, 179.79it/s]

[Feature Set: xydi_3] Epoch [230/250] - Avg Loss: 0.2266
Epoch 231/250: 100%| | 570/570 [00:03<00:00, 181.04it/s]

[Feature Set: xydi_3] Epoch [231/250] - Avg Loss: 0.2175
Epoch 232/250: 100%| | 570/570 [00:03<00:00, 181.26it/s]

[Feature Set: xydi_3] Epoch [232/250] - Avg Loss: 0.1293
Epoch 233/250: 100%| | 570/570 [00:03<00:00, 180.66it/s]

[Feature Set: xydi_3] Epoch [233/250] - Avg Loss: 0.2349
Epoch 234/250: 100%| | 570/570 [00:03<00:00, 180.31it/s]

[Feature Set: xydi_3] Epoch [234/250] - Avg Loss: 0.2521
Epoch 235/250: 100%| | 570/570 [00:03<00:00, 180.97it/s]

[Feature Set: xydi_3] Epoch [235/250] - Avg Loss: 0.1901
Epoch 236/250: 100%| | 570/570 [00:03<00:00, 181.64it/s]

[Feature Set: xydi_3] Epoch [236/250] - Avg Loss: 0.1899
Epoch 237/250: 100%| | 570/570 [00:03<00:00, 179.08it/s]

[Feature Set: xydi_3] Epoch [237/250] - Avg Loss: 0.1117
Epoch 238/250: 100%| | 570/570 [00:03<00:00, 179.44it/s]

[Feature Set: xydi_3] Epoch [238/250] - Avg Loss: 0.1928
Epoch 239/250: 100%| | 570/570 [00:03<00:00, 181.51it/s]

[Feature Set: xydi_3] Epoch [239/250] - Avg Loss: 0.1996
Epoch 240/250: 100%| | 570/570 [00:03<00:00, 180.91it/s]

[Feature Set: xydi_3] Epoch [240/250] - Avg Loss: 0.2363
Epoch 241/250: 100%| | 570/570 [00:03<00:00, 181.28it/s]

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[Feature Set: xydi_3] Epoch [241/250] - Avg Loss: 0.1724
Epoch 242/250: 100%|      | 570/570 [00:03<00:00, 179.32it/s]

[Feature Set: xydi_3] Epoch [242/250] - Avg Loss: 0.2280
Epoch 243/250: 100%|      | 570/570 [00:03<00:00, 181.20it/s]

[Feature Set: xydi_3] Epoch [243/250] - Avg Loss: 0.1602
Epoch 244/250: 100%|      | 570/570 [00:03<00:00, 181.16it/s]

[Feature Set: xydi_3] Epoch [244/250] - Avg Loss: 0.2150
Epoch 245/250: 100%|      | 570/570 [00:03<00:00, 177.87it/s]

[Feature Set: xydi_3] Epoch [245/250] - Avg Loss: 0.2199
Epoch 246/250: 100%|      | 570/570 [00:03<00:00, 181.29it/s]

[Feature Set: xydi_3] Epoch [246/250] - Avg Loss: 0.2508
Epoch 247/250: 100%|      | 570/570 [00:03<00:00, 181.32it/s]

[Feature Set: xydi_3] Epoch [247/250] - Avg Loss: 0.1499
Epoch 248/250: 100%|      | 570/570 [00:03<00:00, 179.79it/s]

[Feature Set: xydi_3] Epoch [248/250] - Avg Loss: 0.1591
Epoch 249/250: 100%|      | 570/570 [00:03<00:00, 181.38it/s]

[Feature Set: xydi_3] Epoch [249/250] - Avg Loss: 0.2464
Epoch 250/250: 100%|      | 570/570 [00:03<00:00, 181.79it/s]

[Feature Set: xydi_3] Epoch [250/250] - Avg Loss: 0.1991
[Eval] xydi_3: 100%|      | 143/143 [00:00<00:00, 333.34it/s]

```

```

[4]: df_results = pd.DataFrame(results)
      print(df_results)

```

	Feature_Set	Accuracy	Macro_F1	Weighted_F1
0	xydd_4	0.538462	0.477061	0.548486
1	xydsc_5	0.594406	0.529819	0.599280
2	xydi_3	0.545455	0.521493	0.564175