

```

In [1]: import copy
import pickle
import multiprocessing

import torch
import torch.optim as optim
import torchvision.transforms as T
from torch.utils.data import DataLoader

from util.helpers import *
from util.run import train, validate
from util.sample import sample
from util.dataset import HaydnDataset, ChunksDataset
from util.models import PitchEmbedModel, HarmonyModel, JudgeModel, NoteModel

from music21 import converter

import numpy as np
from matplotlib import pyplot as plt

%load_ext autoreload
%autoreload 2

if torch.cuda.is_available():
    device = torch.device("cuda")
    torch.set_default_tensor_type('torch.cuda.FloatTensor')
else:
    device = torch.device("cpu")

# number of instrument parts
NUM_PARTS = 4

print(device)

RUN_ID = get_unique_id()
RUN_TIME = get_formatted_time()

cuda

```

```

In [8]: # LOAD HAYDN DATASET

SKIP_DATA = False

if not SKIP_DATA:
    haydn_dataset = HaydnDataset()

Building dataset...
Serialized scores found, loading...
Scores loaded in 19.81 seconds.

```

In [9]: *# SETUP DATA LOADERS*

```
SEQ_LEN = 32
STRIDE = 2
BATCH_SIZE = {
    "train": 1024,
    "val": 1024
}
LOADER_PARAMS = {
    "shuffle": True,
    "num_workers": multiprocessing.cpu_count() - 2
}
TRANSFORMS = []
# how many pieces to allocate to validation, note that pieces have different length of chunks, so
VALIDATION_SPLIT = 0.1

if not SKIP_DATA:
    data_train = ChunksDataset(mode="train",
                               seq_len=SEQ_LEN,
                               stride=STRIDE,
                               dataset=haydn_dataset,
                               transforms=TRANSFORMS,
                               val_split=VALIDATION_SPLIT)
    data_val = ChunksDataset(dataset=data_train.comp_set,
                             transforms=TRANSFORMS)

    loader_train = DataLoader(data_train,
                              batch_size=BATCH_SIZE["train"],
                              **LOADER_PARAMS)
    loader_val = DataLoader(data_val,
                            batch_size=BATCH_SIZE["val"],
                            **LOADER_PARAMS)

    print("There are {} pieces and {} chunks in training set,".format(
        len(data_train.dataset), len(data_train)) +
        "and {} pieces and {} chunks in validation set".format(len(data_val.dataset), len(data_val)))
```

There are 73 pieces and 793169 chunks in training set, and 8 pieces and 219869 chunks in validation set

```
In [6]: # HYPERPARAMETERS

# number of epochs to run
NUM_EPOCHS = 20
# number of dimensions for the embedded pitch vectors
EMBED_DIM = 5
# dimension of the rhythm
RHYTHM_DIM = 1
# the total number of pitches plus rest
PITCH_VOCAB_SIZE = 140
# parameters for the optimizers
OPTIM_PARAMS = {
    "lr": 1e-2,
    "weight_decay": 0.0
}

# weights applied to each of the loss functions
# forward pitch
fp_loss = 0.5
# backward pitch
bp_loss = 0.3
# harmony pitch
hp_loss = 0.3
# forward rhythm
fr_loss = 1.0
# judge
j_loss = 1.0
# part
p_loss = 0.1

LOSS_WEIGHTS = [fp_loss, bp_loss, hp_loss, fr_loss, j_loss, p_loss]

print("Hyperparameter loaded.")
```

Hyperparameter loaded.

```
In [5]: # MODELS AND OPTIMIZERS

SKIP_MODELS = False

if not SKIP_MODELS:
    model_names = ["forward_", "backward_", "harmony_", "judge_"]

    models = {
        "pitch_embed": PitchEmbedModel(vocab_size=PITCH_VOCAB_SIZE,
                                         embed_dim=EMBED_DIM)
    }
    optims = {}

    for i in range(NUM_PARTS):
        note_input_dim = EMBED_DIM + RHYTHM_DIM
        note_hidden_dim = 256
        note_num_layers = 1
```

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        models[model_names[0] + str(i)] = NoteModel(note_input_dim,
                                                    note_hidden_dim,
                                                    batch_size=BATCH_S
IZE['train'],
                                                    num_layers=note_nu
m_layers,
                                                    vocab_size=PITCH_V
OCAB_SIZE)

        models[model_names[1] + str(i)] = NoteModel(note_input_dim,
                                                    note_hidden_dim,
                                                    batch_size=BATCH_S
IZE['train'],
                                                    num_layers=note_nu
m_layers,
                                                    vocab_size=PITCH_V
OCAB_SIZE)

        harmony_input_shape = (NUM_PARTS, EMBED_DIM + NUM_PARTS)
        harmony_hidden_dim = 4 # should be less than 9
        models[model_names[2] + str(i)] = HarmonyModel(input_shape=har
mony_input_shape,
                                                    vocab_size=PITC
H_VOCAB_SIZE,
                                                    hidden_dim=harm
ony_hidden_dim)

        judge_input_shape = (NUM_PARTS - 1, EMBED_DIM)
        judge_hidden_dim = 128
        output_dim = PITCH_VOCAB_SIZE
        models[model_names[3] + str(i)] = JudgeModel(judge_input_shape
,
                                                    judge_hidden_dim,
                                                    output_dim)

        # jointly optimize all of the params, so weights can be assign
ed to different loss.
        embed_params = list(models["pitch_embed"].parameters())
        forward_params = list(models[model_names[0] + str(i)].paramete
rs())
        backward_params = list(models[model_names[1] + str(i)].paramet
ers())
        harmony_params = list(models[model_names[2] + str(i)].paramete
rs())
        judge_params = list(models[model_names[3] + str(i)].parameters
())
        optims[i] = optim.Adam(forward_params + backward_params +
                                harmony_params + judge_params,
                                **OPTIM_PARAMS)

        # send all models to the appropriate device

```

```
for key in models:  
    models[key].to(device=device)  
  
print("Models loaded.")
```

Models loaded.

```
In [6]: # RUN THIS BLOCK CLEAR GPU CACHE  
torch.cuda.empty_cache()
```

```
In [7]: # TRAIN LOOP
```

```
SKIP_TRAIN = False

if not SKIP_TRAIN:
    train_stats = []
    val_stats = []
    saved_models = []

    for epoch in range(NUM_EPOCHS):
        print("EPOCH {}".format(epoch))
        print("-----")
        train_stat, models = train(models, optims, loader_train,
                                   model_names=model_names,
                                   loss_weights=LOSS_WEIGHTS,
                                   device=device,
                                   print_iter=100)

        val_stat, models = validate(models, loader_val,
                                    model_names=model_names,
                                    device=device,
                                    print_iter=100)

        print("-----")
        print("Completed epoch {}".format(epoch))
        print("")
        train_stats.append(train_stat)
        val_stats.append(val_stat)
        saved_models.append(copy.deepcopy(models))

    print("Training completed! Saving files.")

    # create a folder to store all of the stats and models
    mkdir(OUTPUT_PATH)
    stats_file_name = RUN_TIME + "_" + RUN_ID + ".stat"
    stats_file_path = OUTPUT_PATH + "/" + stats_file_name
    models_file_name = RUN_TIME + "_" + RUN_ID + ".models"
    models_file_path = OUTPUT_PATH + "/" + models_file_name

    with open(stats_file_path, "wb") as file:
        pickle.dump((train_stats, val_stats), file)
    with open(models_file_path, "wb") as file:
        pickle.dump(saved_models, file)
```

```
EPOCH 0
```

```
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```

```
Train iter 0/802:
```

```
    Part 1 - fp_loss: 4.95140/0.00%, bp_loss: 4.95615/0.00%, hp_
loss: 5.01104/1.00%, j_loss: 5.84864/0.00%,
           fr_loss: 0.50101/45.00%, p_loss: 1.13502/54.00%,
           total weighted loss: 11.92901
    Part 2 - fp_loss: 4.93666/0.00%, bp_loss: 4.95593/0.00%, hp_
```

loss: 5.21532/0.00%, j_loss: 6.12076/0.00%,
fr_loss: 0.49879/53.00%, p_loss: 1.22066/50.00%,
total weighted loss: 12.26133
Part 3 - fp_loss: 4.98336/0.00%, bp_loss: 4.91575/1.00%, hp_
loss: 5.01843/0.00%, j_loss: 6.51066/0.00%,
fr_loss: 0.50110/53.00%, p_loss: 2.00827/0.00%,
total weighted loss: 12.68452
Part 4 - fp_loss: 4.91120/0.00%, bp_loss: 4.95009/0.00%, hp_
loss: 4.94248/0.00%, j_loss: 5.46928/0.00%,
fr_loss: 0.50266/47.00%, p_loss: 1.44329/9.00%,
total weighted loss: 11.53964
Training time elapsed: 1.19 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.96870/48.00%, bp_loss: 3.13267/24.00%, h
p_loss: 3.11988/24.00%, j_loss: 2.38730/44.00%,
fr_loss: 0.45711/54.00%, p_loss: 0.00150/100.00%,
total weighted loss: 5.70468
Part 2 - fp_loss: 1.92614/50.00%, bp_loss: 2.90178/28.00%, h
p_loss: 2.89999/28.00%, j_loss: 2.31987/48.00%,
fr_loss: 0.35440/64.00%, p_loss: 0.00134/100.00%,
total weighted loss: 5.37800
Part 3 - fp_loss: 1.74535/58.00%, bp_loss: 2.67688/37.00%, h
p_loss: 2.56875/38.00%, j_loss: 2.01602/56.00%,
fr_loss: 0.31272/68.00%, p_loss: 0.00269/100.00%,
total weighted loss: 4.77537
Part 4 - fp_loss: 1.93756/57.00%, bp_loss: 2.85234/32.00%, h
p_loss: 2.74203/33.00%, j_loss: 2.13135/55.00%,
fr_loss: 0.26834/73.00%, p_loss: 0.00134/100.00%,
total weighted loss: 5.04691
Training time elapsed: 38.78 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.86119/45.00%, bp_loss: 2.94614/22.00%, h
p_loss: 3.13066/21.00%, j_loss: 2.32394/44.00%,
fr_loss: 0.41608/58.00%, p_loss: 0.00069/100.00%,
total weighted loss: 5.49372
Part 2 - fp_loss: 1.66959/54.00%, bp_loss: 2.68692/31.00%, h
p_loss: 2.79704/31.00%, j_loss: 2.07822/53.00%,
fr_loss: 0.25664/75.00%, p_loss: 0.00059/100.00%,
total weighted loss: 4.81490
Part 3 - fp_loss: 1.52298/59.00%, bp_loss: 2.61002/36.00%, h
p_loss: 2.43499/37.00%, j_loss: 1.83791/59.00%,
fr_loss: 0.25375/74.00%, p_loss: 0.00109/100.00%,
total weighted loss: 4.36676
Part 4 - fp_loss: 1.58695/59.00%, bp_loss: 2.73012/29.00%, h
p_loss: 2.68291/30.00%, j_loss: 1.98849/58.00%,
fr_loss: 0.21742/78.00%, p_loss: 0.00071/100.00%,
total weighted loss: 4.62336
Training time elapsed: 76.29 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.74434/50.00%, bp_loss: 2.80716/23.00%, h

p_loss: 3.08666/22.00%, j_loss: 2.17331/49.00%,
fr_loss: 0.45207/54.00%, p_loss: 0.00052/100.00%,
total weighted loss: 5.26575
Part 2 - fp_loss: 1.59718/56.00%, bp_loss: 2.63560/30.00%, h
p_loss: 2.82005/30.00%, j_loss: 1.99254/54.00%,
fr_loss: 0.22753/77.00%, p_loss: 0.00039/100.00%,
total weighted loss: 4.65539
Part 3 - fp_loss: 1.54537/58.00%, bp_loss: 2.49520/35.00%, h
p_loss: 2.46862/37.00%, j_loss: 1.83874/58.00%,
fr_loss: 0.23566/76.00%, p_loss: 0.00066/100.00%,
total weighted loss: 4.33630
Part 4 - fp_loss: 1.55193/58.00%, bp_loss: 2.56182/31.00%, h
p_loss: 2.66897/31.00%, j_loss: 1.94378/58.00%,
fr_loss: 0.19536/80.00%, p_loss: 0.00053/100.00%,
total weighted loss: 4.48440
Training time elapsed: 113.76 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.64941/53.00%, bp_loss: 2.80227/22.00%, h
p_loss: 3.13299/20.00%, j_loss: 2.05370/53.00%,
fr_loss: 0.25136/75.00%, p_loss: 0.00032/100.00%,
total weighted loss: 4.91038
Part 2 - fp_loss: 1.40717/59.00%, bp_loss: 2.50271/32.00%, h
p_loss: 2.78544/32.00%, j_loss: 1.81288/59.00%,
fr_loss: 0.23322/77.00%, p_loss: 0.00031/100.00%,
total weighted loss: 4.33616
Part 3 - fp_loss: 1.45149/61.00%, bp_loss: 2.50543/33.00%, h
p_loss: 2.54665/35.00%, j_loss: 1.75664/61.00%,
fr_loss: 0.21823/78.00%, p_loss: 0.00047/100.00%,
total weighted loss: 4.21629
Part 4 - fp_loss: 1.44711/61.00%, bp_loss: 2.58502/28.00%, h
p_loss: 2.67673/29.00%, j_loss: 1.83028/60.00%,
fr_loss: 0.18924/81.00%, p_loss: 0.00048/100.00%,
total weighted loss: 4.32165
Training time elapsed: 151.23 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.63133/52.00%, bp_loss: 2.66006/25.00%, h
p_loss: 3.09211/22.00%, j_loss: 2.05970/52.00%,
fr_loss: 0.25703/74.00%, p_loss: 0.00024/100.00%,
total weighted loss: 4.85806
Part 2 - fp_loss: 1.52057/57.00%, bp_loss: 2.42600/32.00%, h
p_loss: 2.76126/31.00%, j_loss: 1.91905/57.00%,
fr_loss: 0.23727/76.00%, p_loss: 0.00024/100.00%,
total weighted loss: 4.47280
Part 3 - fp_loss: 1.37693/62.00%, bp_loss: 2.35437/36.00%, h
p_loss: 2.45780/37.00%, j_loss: 1.70715/62.00%,
fr_loss: 0.20465/79.00%, p_loss: 0.00039/100.00%,
total weighted loss: 4.04395
Part 4 - fp_loss: 1.43517/61.00%, bp_loss: 2.44372/33.00%, h
p_loss: 2.67323/31.00%, j_loss: 1.81976/61.00%,
fr_loss: 0.20719/79.00%, p_loss: 0.00040/100.00%,
total weighted loss: 4.27966

Training time elapsed: 188.70 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.57223/55.00%, bp_loss: 2.73895/21.00%, h
p_loss: 3.15352/19.00%, j_loss: 1.98187/55.00%,
fr_loss: 0.24319/75.00%, p_loss: 0.00021/100.00%,
total weighted loss: 4.77894

Part 2 - fp_loss: 1.50901/58.00%, bp_loss: 2.43469/32.00%, h
p_loss: 2.79271/31.00%, j_loss: 1.87632/57.00%,
fr_loss: 0.22277/78.00%, p_loss: 0.00021/100.00%,
total weighted loss: 4.42183

Part 3 - fp_loss: 1.33561/65.00%, bp_loss: 2.34715/36.00%, h
p_loss: 2.51725/35.00%, j_loss: 1.63283/65.00%,
fr_loss: 0.23148/76.00%, p_loss: 0.00028/100.00%,
total weighted loss: 3.99147

Part 4 - fp_loss: 1.37577/63.00%, bp_loss: 2.40597/32.00%, h
p_loss: 2.63588/31.00%, j_loss: 1.72488/62.00%,
fr_loss: 0.18429/81.00%, p_loss: 0.00034/100.00%,
total weighted loss: 4.10964

Training time elapsed: 226.17 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.57803/53.00%, bp_loss: 2.68228/23.00%, h
p_loss: 3.14906/21.00%, j_loss: 2.05286/53.00%,
fr_loss: 0.23302/76.00%, p_loss: 0.00017/100.00%,
total weighted loss: 4.82431

Part 2 - fp_loss: 1.39778/62.00%, bp_loss: 2.33823/33.00%, h
p_loss: 2.76035/30.00%, j_loss: 1.73089/61.00%,
fr_loss: 0.23465/76.00%, p_loss: 0.00018/100.00%,
total weighted loss: 4.19403

Part 3 - fp_loss: 1.41384/61.00%, bp_loss: 2.24747/38.00%, h
p_loss: 2.47295/36.00%, j_loss: 1.74974/60.00%,
fr_loss: 0.22739/77.00%, p_loss: 0.00028/100.00%,
total weighted loss: 4.10020

Part 4 - fp_loss: 1.29938/63.00%, bp_loss: 2.34733/33.00%, h
p_loss: 2.61347/31.00%, j_loss: 1.71634/63.00%,
fr_loss: 0.17329/83.00%, p_loss: 0.00034/100.00%,
total weighted loss: 4.02760

Training time elapsed: 263.65 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.55931/54.00%, bp_loss: 2.58743/26.00%, h
p_loss: 3.06939/23.00%, j_loss: 1.99734/53.00%,
fr_loss: 0.23358/76.00%, p_loss: 0.00014/100.00%,
total weighted loss: 4.70764

Part 2 - fp_loss: 1.40415/61.00%, bp_loss: 2.31568/36.00%, h
p_loss: 2.73078/31.00%, j_loss: 1.76151/61.00%,
fr_loss: 0.22088/78.00%, p_loss: 0.00016/100.00%,
total weighted loss: 4.19842

Part 3 - fp_loss: 1.31887/65.00%, bp_loss: 2.19094/39.00%, h
p_loss: 2.50751/36.00%, j_loss: 1.61455/65.00%,
fr_loss: 0.21918/78.00%, p_loss: 0.00022/100.00%,
total weighted loss: 3.90273

Part 4 - fp_loss: 1.24543/65.00%, bp_loss: 2.32291/35.00%, h
p_loss: 2.59819/31.00%, j_loss: 1.60857/65.00%,
fr_loss: 0.18865/81.00%, p_loss: 0.00035/100.00%,
total weighted loss: 3.89630
Training time elapsed: 301.14 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.76405/50.00%, bp_loss: 2.64477/29.00%, h
p_loss: 3.06525/27.00%, j_loss: 2.19397/49.00%,
fr_loss: 0.26840/73.00%, p_loss: 0.00013/100.00%,
total weighted loss: 9.93656

Part 2 - fp_loss: 1.36882/62.00%, bp_loss: 2.44437/42.00%, h
p_loss: 2.56996/41.00%, j_loss: 1.67554/62.00%,
fr_loss: 0.27388/72.00%, p_loss: 0.00013/100.00%,
total weighted loss: 8.33270

Part 3 - fp_loss: 1.11345/70.00%, bp_loss: 2.02400/47.00%, h
p_loss: 2.05699/50.00%, j_loss: 1.38840/70.00%,
fr_loss: 0.21304/79.00%, p_loss: 0.00019/100.00%,
total weighted loss: 6.79608

Part 4 - fp_loss: 1.18719/67.00%, bp_loss: 2.21174/41.00%, h
p_loss: 2.23994/43.00%, j_loss: 1.46462/68.00%,
fr_loss: 0.21429/78.00%, p_loss: 0.00027/100.00%,
total weighted loss: 7.31805

`Validation time elapsed: 0.68 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.69039/53.00%, bp_loss: 2.54699/31.00%, h
p_loss: 3.07074/27.00%, j_loss: 2.05071/52.00%,
fr_loss: 0.23390/76.00%, p_loss: 0.00012/100.00%,
total weighted loss: 9.59285

Part 2 - fp_loss: 1.33287/61.00%, bp_loss: 2.54015/42.00%, h
p_loss: 2.55442/42.00%, j_loss: 1.68801/61.00%,
fr_loss: 0.23209/76.00%, p_loss: 0.00012/100.00%,
total weighted loss: 8.34765

Part 3 - fp_loss: 1.05345/71.00%, bp_loss: 1.99479/50.00%, h
p_loss: 1.95706/52.00%, j_loss: 1.34106/70.00%,
fr_loss: 0.22730/77.00%, p_loss: 0.00017/100.00%,
total weighted loss: 6.57383

Part 4 - fp_loss: 1.12178/69.00%, bp_loss: 2.10491/44.00%, h
p_loss: 2.14335/47.00%, j_loss: 1.41754/69.00%,
fr_loss: 0.21512/78.00%, p_loss: 0.00025/100.00%,
total weighted loss: 7.00295

`Validation time elapsed: 9.50 seconds
`

Completed epoch 0.

EPOCH 1

Train iter 0/802:

Part 1 - fp_loss: 1.55166/54.00%, bp_loss: 2.67152/25.00%, h
p_loss: 3.13517/21.00%, j_loss: 1.99812/54.00%,
fr_loss: 0.22769/77.00%, p_loss: 0.00014/100.00%,

total weighted loss: 4.74366
Part 2 - fp_loss: 1.45770/59.00%, bp_loss: 2.53632/32.00%, h
p_loss: 2.78503/29.00%, j_loss: 1.80967/58.00%,
fr_loss: 0.22114/78.00%, p_loss: 0.00018/100.00%,
total weighted loss: 4.35608
Part 3 - fp_loss: 1.32908/65.00%, bp_loss: 2.29434/37.00%, h
p_loss: 2.49063/36.00%, j_loss: 1.64166/65.00%,
fr_loss: 0.20214/79.00%, p_loss: 0.00022/100.00%,
total weighted loss: 3.94385
Part 4 - fp_loss: 1.24198/66.00%, bp_loss: 2.37257/33.00%, h
p_loss: 2.66155/32.00%, j_loss: 1.57963/66.00%,
fr_loss: 0.17811/82.00%, p_loss: 0.00036/100.00%,
total weighted loss: 3.88900
Training time elapsed: 0.98 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.55761/53.00%, bp_loss: 2.64264/24.00%, h
p_loss: 3.08167/22.00%, j_loss: 1.98443/52.00%,
fr_loss: 0.22267/77.00%, p_loss: 0.00012/100.00%,
total weighted loss: 4.70321
Part 2 - fp_loss: 1.50116/58.00%, bp_loss: 2.34145/33.00%, h
p_loss: 2.81137/28.00%, j_loss: 1.78896/58.00%,
fr_loss: 0.24033/76.00%, p_loss: 0.00014/100.00%,
total weighted loss: 4.32573
Part 3 - fp_loss: 1.30669/65.00%, bp_loss: 2.19674/38.00%, h
p_loss: 2.51866/36.00%, j_loss: 1.58123/65.00%,
fr_loss: 0.22303/77.00%, p_loss: 0.00016/100.00%,
total weighted loss: 3.87223
Part 4 - fp_loss: 1.37227/63.00%, bp_loss: 2.33580/34.00%, h
p_loss: 2.68138/33.00%, j_loss: 1.66586/63.00%,
fr_loss: 0.17762/82.00%, p_loss: 0.00039/100.00%,
total weighted loss: 4.03481
Training time elapsed: 38.47 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.50131/54.00%, bp_loss: 2.58303/25.00%, h
p_loss: 3.10477/22.00%, j_loss: 1.94216/54.00%,
fr_loss: 0.20176/79.00%, p_loss: 0.00011/100.00%,
total weighted loss: 4.60092
Part 2 - fp_loss: 1.38143/61.00%, bp_loss: 2.30945/35.00%, h
p_loss: 2.80931/30.00%, j_loss: 1.66994/61.00%,
fr_loss: 0.18068/82.00%, p_loss: 0.00011/100.00%,
total weighted loss: 4.07698
Part 3 - fp_loss: 1.28169/65.00%, bp_loss: 2.11817/40.00%, h
p_loss: 2.49455/36.00%, j_loss: 1.60772/64.00%,
fr_loss: 0.18198/81.00%, p_loss: 0.00013/100.00%,
total weighted loss: 3.81437
Part 4 - fp_loss: 1.33927/64.00%, bp_loss: 2.29860/35.00%, h
p_loss: 2.67154/30.00%, j_loss: 1.65958/63.00%,
fr_loss: 0.16151/83.00%, p_loss: 0.00031/100.00%,
total weighted loss: 3.98180
Training time elapsed: 75.93 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.54232/55.00%, bp_loss: 2.53601/26.00%, h
p_loss: 3.07372/23.00%, j_loss: 1.95337/55.00%,
fr_loss: 0.22781/77.00%, p_loss: 0.00010/100.00%,
total weighted loss: 4.63527
Part 2 - fp_loss: 1.35014/62.00%, bp_loss: 2.21599/37.00%, h
p_loss: 2.73076/31.00%, j_loss: 1.66766/62.00%,
fr_loss: 0.19312/81.00%, p_loss: 0.00013/100.00%,
total weighted loss: 4.01990
Part 3 - fp_loss: 1.27223/65.00%, bp_loss: 2.07455/41.00%, h
p_loss: 2.42003/36.00%, j_loss: 1.53002/65.00%,
fr_loss: 0.18755/81.00%, p_loss: 0.00011/100.00%,
total weighted loss: 3.70207
Part 4 - fp_loss: 1.24319/65.00%, bp_loss: 2.26208/36.00%, h
p_loss: 2.65853/29.00%, j_loss: 1.57121/65.00%,
fr_loss: 0.15299/85.00%, p_loss: 0.00036/100.00%,
total weighted loss: 3.82202
Training time elapsed: 113.40 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.52417/56.00%, bp_loss: 2.49026/26.00%, h
p_loss: 3.02403/23.00%, j_loss: 1.90096/55.00%,
fr_loss: 0.21852/78.00%, p_loss: 0.00009/100.00%,
total weighted loss: 4.53586
Part 2 - fp_loss: 1.42130/59.00%, bp_loss: 2.23055/36.00%, h
p_loss: 2.71680/31.00%, j_loss: 1.72297/58.00%,
fr_loss: 0.20363/79.00%, p_loss: 0.00014/100.00%,
total weighted loss: 4.12146
Part 3 - fp_loss: 1.27161/66.00%, bp_loss: 2.07101/43.00%, h
p_loss: 2.41626/38.00%, j_loss: 1.43763/66.00%,
fr_loss: 0.21944/78.00%, p_loss: 0.00010/100.00%,
total weighted loss: 3.63907
Part 4 - fp_loss: 1.29328/64.00%, bp_loss: 2.31314/34.00%, h
p_loss: 2.67875/30.00%, j_loss: 1.64132/63.00%,
fr_loss: 0.17718/82.00%, p_loss: 0.00025/100.00%,
total weighted loss: 3.96274
Training time elapsed: 150.85 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.59390/52.00%, bp_loss: 2.51588/27.00%, h
p_loss: 3.05540/23.00%, j_loss: 2.02669/52.00%,
fr_loss: 0.20322/79.00%, p_loss: 0.00006/100.00%,
total weighted loss: 4.69825
Part 2 - fp_loss: 1.26410/62.00%, bp_loss: 2.25892/36.00%, h
p_loss: 2.77653/28.00%, j_loss: 1.60215/62.00%,
fr_loss: 0.19006/80.00%, p_loss: 0.00011/100.00%,
total weighted loss: 3.93490
Part 3 - fp_loss: 1.28112/64.00%, bp_loss: 2.19266/38.00%, h
p_loss: 2.42617/35.00%, j_loss: 1.59064/64.00%,
fr_loss: 0.20422/79.00%, p_loss: 0.00009/100.00%,
total weighted loss: 3.82108
Part 4 - fp_loss: 1.18036/69.00%, bp_loss: 2.26961/36.00%, h
p_loss: 2.61922/34.00%, j_loss: 1.39254/70.00%,

fr_loss: 0.14614/85.00%, p_loss: 0.00034/100.00%,
total weighted loss: 3.59554
Training time elapsed: 188.29 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.56330/54.00%, bp_loss: 2.48457/28.00%, h
p_loss: 3.10102/22.00%, j_loss: 1.97132/54.00%,
fr_loss: 0.21754/78.00%, p_loss: 0.00007/100.00%,
total weighted loss: 4.64619
Part 2 - fp_loss: 1.37487/61.00%, bp_loss: 2.21006/38.00%, h
p_loss: 2.73229/31.00%, j_loss: 1.69594/61.00%,
fr_loss: 0.22789/77.00%, p_loss: 0.00008/100.00%,
total weighted loss: 4.09398
Part 3 - fp_loss: 1.28436/66.00%, bp_loss: 2.16687/37.00%, h
p_loss: 2.44380/36.00%, j_loss: 1.54839/65.00%,
fr_loss: 0.19831/80.00%, p_loss: 0.00008/100.00%,
total weighted loss: 3.77210
Part 4 - fp_loss: 1.17099/69.00%, bp_loss: 2.12132/41.00%, h
p_loss: 2.63162/32.00%, j_loss: 1.37487/69.00%,
fr_loss: 0.17186/82.00%, p_loss: 0.00025/100.00%,
total weighted loss: 3.55813

Training time elapsed: 225.75 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.58248/54.00%, bp_loss: 2.53452/26.00%, h
p_loss: 3.15999/19.00%, j_loss: 1.95126/54.00%,
fr_loss: 0.20875/79.00%, p_loss: 0.00006/100.00%,
total weighted loss: 4.65961
Part 2 - fp_loss: 1.34376/63.00%, bp_loss: 2.41288/32.00%, h
p_loss: 2.77521/29.00%, j_loss: 1.63308/63.00%,
fr_loss: 0.20208/79.00%, p_loss: 0.00008/100.00%,
total weighted loss: 4.06347
Part 3 - fp_loss: 1.26064/65.00%, bp_loss: 2.12987/38.00%, h
p_loss: 2.46435/36.00%, j_loss: 1.55596/65.00%,
fr_loss: 0.18092/81.00%, p_loss: 0.00006/100.00%,
total weighted loss: 3.74547
Part 4 - fp_loss: 1.26697/66.00%, bp_loss: 1.79169/49.00%, h
p_loss: 2.58902/32.00%, j_loss: 1.27817/69.00%,
fr_loss: 0.15940/84.00%, p_loss: 0.00023/100.00%,
total weighted loss: 3.38528

Training time elapsed: 263.21 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.51739/54.00%, bp_loss: 2.50763/26.00%, h
p_loss: 3.12532/20.00%, j_loss: 1.95720/54.00%,
fr_loss: 0.20335/79.00%, p_loss: 0.00007/100.00%,
total weighted loss: 4.60914
Part 2 - fp_loss: 1.39388/61.00%, bp_loss: 2.34629/32.00%, h
p_loss: 2.76012/29.00%, j_loss: 1.67438/61.00%,
fr_loss: 0.21093/79.00%, p_loss: 0.00010/100.00%,
total weighted loss: 4.11418
Part 3 - fp_loss: 1.17366/69.00%, bp_loss: 2.21456/38.00%, h
p_loss: 2.43277/36.00%, j_loss: 1.39445/69.00%,

fr_loss: 0.19630/80.00%, p_loss: 0.00006/100.00%,
total weighted loss: 3.57179
Part 4 - fp_loss: 1.19569/67.00%, bp_loss: 1.72691/53.00%, h
p_loss: 2.64320/31.00%, j_loss: 1.17951/70.00%,
fr_loss: 0.15601/84.00%, p_loss: 0.00026/100.00%,
total weighted loss: 3.24442
Training time elapsed: 300.65 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.58057/56.00%, bp_loss: 2.45172/31.00%, h
p_loss: 3.07881/26.00%, j_loss: 1.99106/56.00%,
fr_loss: 0.23989/75.00%, p_loss: 0.00008/100.00%,
total weighted loss: 9.34212
Part 2 - fp_loss: 1.32441/62.00%, bp_loss: 2.20975/40.00%, h
p_loss: 2.54935/42.00%, j_loss: 1.60566/62.00%,
fr_loss: 0.24452/75.00%, p_loss: 0.00008/100.00%,
total weighted loss: 7.93376
Part 3 - fp_loss: 1.08507/70.00%, bp_loss: 1.97755/48.00%, h
p_loss: 2.02642/50.00%, j_loss: 1.31401/70.00%,
fr_loss: 0.19931/79.00%, p_loss: 0.00005/100.00%,
total weighted loss: 6.60242
Part 4 - fp_loss: 1.17389/68.00%, bp_loss: 2.22163/42.00%, h
p_loss: 2.22579/43.00%, j_loss: 1.47706/64.00%,
fr_loss: 0.19893/80.00%, p_loss: 0.00013/100.00%,
total weighted loss: 7.29743
`Validation time elapsed: 0.72 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.67898/53.00%, bp_loss: 2.53049/29.00%, h
p_loss: 3.05231/27.00%, j_loss: 2.04875/53.00%,
fr_loss: 0.23495/76.00%, p_loss: 0.00008/100.00%,
total weighted loss: 9.54556
Part 2 - fp_loss: 1.27713/63.00%, bp_loss: 2.25366/41.00%, h
p_loss: 2.55110/43.00%, j_loss: 1.65348/63.00%,
fr_loss: 0.23867/76.00%, p_loss: 0.00007/100.00%,
total weighted loss: 7.97410
Part 3 - fp_loss: 1.14491/66.00%, bp_loss: 1.99485/50.00%, h
p_loss: 1.90454/52.00%, j_loss: 1.47510/66.00%,
fr_loss: 0.23516/76.00%, p_loss: 0.00005/100.00%,
total weighted loss: 6.75461
Part 4 - fp_loss: 1.22228/68.00%, bp_loss: 1.92200/48.00%, h
p_loss: 2.18923/45.00%, j_loss: 1.26921/69.00%,
fr_loss: 0.23198/76.00%, p_loss: 0.00017/100.00%,
total weighted loss: 6.83487
`Validation time elapsed: 9.52 seconds
`

Completed epoch 1.

EPOCH 2

Train iter 0/802:

Part 1 - fp_loss: 1.48091/57.00%, bp_loss: 2.49037/26.00%, h

p_loss: 3.12634/20.00%, j_loss: 1.88681/56.00%,
fr_loss: 0.19770/80.00%, p_loss: 0.00007/100.00%,
total weighted loss: 4.50999
Part 2 - fp_loss: 1.35412/63.00%, bp_loss: 2.25357/37.00%, h
p_loss: 2.77205/29.00%, j_loss: 1.60845/62.00%,
fr_loss: 0.20254/79.00%, p_loss: 0.00008/100.00%,
total weighted loss: 3.99575
Part 3 - fp_loss: 1.27540/64.00%, bp_loss: 2.09356/39.00%, h
p_loss: 2.46551/37.00%, j_loss: 1.56186/64.00%,
fr_loss: 0.19221/81.00%, p_loss: 0.00006/100.00%,
total weighted loss: 3.75950
Part 4 - fp_loss: 1.26338/64.00%, bp_loss: 2.14234/41.00%, h
p_loss: 2.63522/32.00%, j_loss: 1.48053/62.00%,
fr_loss: 0.16782/83.00%, p_loss: 0.00028/100.00%,
total weighted loss: 3.71334
Training time elapsed: 1.04 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.48210/58.00%, bp_loss: 2.43162/30.00%, h
p_loss: 3.05306/24.00%, j_loss: 1.87457/57.00%,
fr_loss: 0.19272/81.00%, p_loss: 0.00007/100.00%,
total weighted loss: 4.45375
Part 2 - fp_loss: 1.32433/62.00%, bp_loss: 2.17256/36.00%, h
p_loss: 2.75422/29.00%, j_loss: 1.66079/62.00%,
fr_loss: 0.17904/82.00%, p_loss: 0.00008/100.00%,
total weighted loss: 3.98004
Part 3 - fp_loss: 1.17731/68.00%, bp_loss: 2.10674/42.00%, h
p_loss: 2.47266/36.00%, j_loss: 1.42976/67.00%,
fr_loss: 0.17569/82.00%, p_loss: 0.00006/100.00%,
total weighted loss: 3.56793
Part 4 - fp_loss: 1.20508/66.00%, bp_loss: 1.65492/53.00%, h
p_loss: 2.65411/31.00%, j_loss: 1.24857/68.00%,
fr_loss: 0.13411/86.00%, p_loss: 0.00018/100.00%,
total weighted loss: 3.27794
Training time elapsed: 38.27 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.45917/56.00%, bp_loss: 2.45701/28.00%, h
p_loss: 3.09743/22.00%, j_loss: 1.85491/56.00%,
fr_loss: 0.19569/80.00%, p_loss: 0.00007/100.00%,
total weighted loss: 4.44653
Part 2 - fp_loss: 1.34178/62.00%, bp_loss: 2.16286/40.00%, h
p_loss: 2.67100/33.00%, j_loss: 1.60443/62.00%,
fr_loss: 0.20411/79.00%, p_loss: 0.00006/100.00%,
total weighted loss: 3.92959
Part 3 - fp_loss: 1.27239/65.00%, bp_loss: 1.92444/45.00%, h
p_loss: 2.41787/38.00%, j_loss: 1.45453/66.00%,
fr_loss: 0.21519/78.00%, p_loss: 0.00005/100.00%,
total weighted loss: 3.60862
Part 4 - fp_loss: 1.21480/67.00%, bp_loss: 1.39450/63.00%, h
p_loss: 2.55857/33.00%, j_loss: 0.99190/73.00%,
fr_loss: 0.16400/83.00%, p_loss: 0.00021/100.00%,
total weighted loss: 2.94924

Training time elapsed: 75.46 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.41424/58.00%, bp_loss: 2.41705/29.00%, h
p_loss: 3.11178/21.00%, j_loss: 1.84638/57.00%,
fr_loss: 0.17914/82.00%, p_loss: 0.00006/100.00%,
total weighted loss: 4.39129

Part 2 - fp_loss: 1.32608/63.00%, bp_loss: 2.10868/39.00%, h
p_loss: 2.78485/30.00%, j_loss: 1.59659/63.00%,
fr_loss: 0.19908/80.00%, p_loss: 0.00006/100.00%,
total weighted loss: 3.92677

Part 3 - fp_loss: 1.23130/66.00%, bp_loss: 1.95957/43.00%, h
p_loss: 2.46828/36.00%, j_loss: 1.39802/67.00%,
fr_loss: 0.18479/81.00%, p_loss: 0.00004/100.00%,
total weighted loss: 3.52682

Part 4 - fp_loss: 1.20309/67.00%, bp_loss: 1.50550/61.00%, h
p_loss: 2.68377/31.00%, j_loss: 1.03043/73.00%,
fr_loss: 0.18376/81.00%, p_loss: 0.00019/100.00%,
total weighted loss: 3.07254

Training time elapsed: 112.65 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.54105/55.00%, bp_loss: 2.44301/28.00%, h
p_loss: 3.07433/21.00%, j_loss: 1.85721/54.00%,
fr_loss: 0.20096/80.00%, p_loss: 0.00005/100.00%,
total weighted loss: 4.48390

Part 2 - fp_loss: 1.30221/64.00%, bp_loss: 2.13205/36.00%, h
p_loss: 2.71224/30.00%, j_loss: 1.58583/64.00%,
fr_loss: 0.18195/81.00%, p_loss: 0.00006/100.00%,
total weighted loss: 3.87217

Part 3 - fp_loss: 1.29262/67.00%, bp_loss: 1.85927/48.00%, h
p_loss: 2.44329/38.00%, j_loss: 1.30571/68.00%,
fr_loss: 0.20004/79.00%, p_loss: 0.00004/100.00%,
total weighted loss: 3.44283

Part 4 - fp_loss: 1.23770/65.00%, bp_loss: 1.19804/69.00%, h
p_loss: 2.62674/31.00%, j_loss: 0.89209/74.00%,
fr_loss: 0.17072/83.00%, p_loss: 0.00013/100.00%,
total weighted loss: 2.82911

Training time elapsed: 149.84 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.45744/56.00%, bp_loss: 2.33790/33.00%, h
p_loss: 3.06843/22.00%, j_loss: 1.75782/56.00%,
fr_loss: 0.21641/78.00%, p_loss: 0.00005/100.00%,
total weighted loss: 4.32485

Part 2 - fp_loss: 1.31958/62.00%, bp_loss: 2.17083/36.00%, h
p_loss: 2.70064/32.00%, j_loss: 1.62165/62.00%,
fr_loss: 0.17227/82.00%, p_loss: 0.00006/100.00%,
total weighted loss: 3.91516

Part 3 - fp_loss: 1.20554/68.00%, bp_loss: 1.76409/49.00%, h
p_loss: 2.42628/38.00%, j_loss: 1.27071/68.00%,
fr_loss: 0.17508/82.00%, p_loss: 0.00003/100.00%,
total weighted loss: 3.30567

Part 4 - fp_loss: 1.17961/67.00%, bp_loss: 1.30742/65.00%, h
p_loss: 2.65692/31.00%, j_loss: 0.93914/76.00%,
fr_loss: 0.15942/84.00%, p_loss: 0.00017/100.00%,
total weighted loss: 2.87768
Training time elapsed: 187.06 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.48445/56.00%, bp_loss: 2.27096/36.00%, h
p_loss: 3.08728/23.00%, j_loss: 1.73679/56.00%,
fr_loss: 0.20511/79.00%, p_loss: 0.00004/100.00%,
total weighted loss: 4.29161
Part 2 - fp_loss: 1.37901/62.00%, bp_loss: 2.12244/40.00%, h
p_loss: 2.76037/28.00%, j_loss: 1.56805/61.00%,
fr_loss: 0.18016/82.00%, p_loss: 0.00005/100.00%,
total weighted loss: 3.90256
Part 3 - fp_loss: 1.22818/66.00%, bp_loss: 1.71511/53.00%, h
p_loss: 2.30621/38.00%, j_loss: 1.24065/67.00%,
fr_loss: 0.16376/83.00%, p_loss: 0.00003/100.00%,
total weighted loss: 3.22489
Part 4 - fp_loss: 1.23417/68.00%, bp_loss: 1.16375/69.00%, h
p_loss: 2.58547/33.00%, j_loss: 0.88785/77.00%,
fr_loss: 0.15982/84.00%, p_loss: 0.00014/100.00%,
total weighted loss: 2.78953
Training time elapsed: 224.22 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.42495/58.00%, bp_loss: 2.39155/35.00%, h
p_loss: 3.06061/25.00%, j_loss: 1.72036/58.00%,
fr_loss: 0.19829/80.00%, p_loss: 0.00004/100.00%,
total weighted loss: 4.26677
Part 2 - fp_loss: 1.29075/64.00%, bp_loss: 2.03702/41.00%, h
p_loss: 2.77442/30.00%, j_loss: 1.50081/63.00%,
fr_loss: 0.18348/81.00%, p_loss: 0.00006/100.00%,
total weighted loss: 3.77310
Part 3 - fp_loss: 1.19055/68.00%, bp_loss: 1.74456/52.00%, h
p_loss: 2.44683/38.00%, j_loss: 1.22340/70.00%,
fr_loss: 0.16757/83.00%, p_loss: 0.00004/100.00%,
total weighted loss: 3.24367
Part 4 - fp_loss: 1.18822/67.00%, bp_loss: 1.09437/69.00%, h
p_loss: 2.70115/30.00%, j_loss: 0.84188/80.00%,
fr_loss: 0.15507/84.00%, p_loss: 0.00011/100.00%,
total weighted loss: 2.72973
Training time elapsed: 261.42 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.47476/57.00%, bp_loss: 2.11828/44.00%, h
p_loss: 3.04444/22.00%, j_loss: 1.60423/60.00%,
fr_loss: 0.20616/79.00%, p_loss: 0.00004/100.00%,
total weighted loss: 4.09658
Part 2 - fp_loss: 1.32241/63.00%, bp_loss: 1.99544/43.00%, h
p_loss: 2.74799/31.00%, j_loss: 1.49169/62.00%,
fr_loss: 0.19492/80.00%, p_loss: 0.00004/100.00%,
total weighted loss: 3.77085

Part 3 - fp_loss: 1.28380/65.00%, bp_loss: 1.81652/50.00%, h
p_loss: 2.44616/37.00%, j_loss: 1.33273/66.00%,
fr_loss: 0.18959/81.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.44303
Part 4 - fp_loss: 1.19343/67.00%, bp_loss: 1.46722/64.00%, h
p_loss: 2.61699/34.00%, j_loss: 0.92641/72.00%,
fr_loss: 0.14681/85.00%, p_loss: 0.00016/100.00%,
total weighted loss: 2.89521
Training time elapsed: 298.62 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.59968/53.00%, bp_loss: 2.09663/42.00%, h
p_loss: 3.08142/25.00%, j_loss: 1.81430/56.00%,
fr_loss: 0.23318/76.00%, p_loss: 0.00004/100.00%,
total weighted loss: 8.82524
Part 2 - fp_loss: 1.37661/59.00%, bp_loss: 1.93570/46.00%, h
p_loss: 2.58080/42.00%, j_loss: 1.60721/59.00%,
fr_loss: 0.24338/75.00%, p_loss: 0.00003/100.00%,
total weighted loss: 7.74373
Part 3 - fp_loss: 1.10689/69.00%, bp_loss: 1.82677/52.00%, h
p_loss: 1.99077/51.00%, j_loss: 1.29432/67.00%,
fr_loss: 0.18743/81.00%, p_loss: 0.00002/100.00%,
total weighted loss: 6.40620
Part 4 - fp_loss: 1.22289/66.00%, bp_loss: 2.02382/45.00%, h
p_loss: 2.23357/44.00%, j_loss: 1.51628/59.00%,
fr_loss: 0.22656/77.00%, p_loss: 0.00010/100.00%,
total weighted loss: 7.22321
`Validation time elapsed: 0.73 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.65690/52.00%, bp_loss: 2.25222/41.00%, h
p_loss: 3.10828/25.00%, j_loss: 1.86567/55.00%,
fr_loss: 0.25368/75.00%, p_loss: 0.00003/100.00%,
total weighted loss: 9.13679
Part 2 - fp_loss: 1.41730/59.00%, bp_loss: 2.13311/41.00%, h
p_loss: 2.64123/38.00%, j_loss: 1.68831/59.00%,
fr_loss: 0.25081/74.00%, p_loss: 0.00003/100.00%,
total weighted loss: 8.13081
Part 3 - fp_loss: 1.12899/69.00%, bp_loss: 1.72787/57.00%, h
p_loss: 1.95578/52.00%, j_loss: 1.15743/71.00%,
fr_loss: 0.20485/79.00%, p_loss: 0.00002/100.00%,
total weighted loss: 6.17494
Part 4 - fp_loss: 1.14473/68.00%, bp_loss: 1.50343/62.00%, h
p_loss: 2.11013/47.00%, j_loss: 0.98612/69.00%,
fr_loss: 0.19752/80.00%, p_loss: 0.00006/100.00%,
total weighted loss: 5.94200
`Validation time elapsed: 9.53 seconds
`

Completed epoch 2.

EPOCH 3

Train iter 0/802:

Part 1 - fp_loss: 1.41573/57.00%, bp_loss: 2.00048/42.00%, h
p_loss: 3.08046/22.00%, j_loss: 1.62663/60.00%,
fr_loss: 0.19387/80.00%, p_loss: 0.00003/100.00%,
total weighted loss: 4.05265
Part 2 - fp_loss: 1.29495/63.00%, bp_loss: 1.90879/45.00%, h
p_loss: 2.78125/29.00%, j_loss: 1.47284/62.00%,
fr_loss: 0.19399/80.00%, p_loss: 0.00004/100.00%,
total weighted loss: 3.72132
Part 3 - fp_loss: 1.18675/68.00%, bp_loss: 1.77029/53.00%, h
p_loss: 2.41738/37.00%, j_loss: 1.24402/70.00%,
fr_loss: 0.17878/82.00%, p_loss: 0.00003/100.00%,
total weighted loss: 3.27248
Part 4 - fp_loss: 1.20902/66.00%, bp_loss: 1.86328/51.00%, h
p_loss: 2.65157/31.00%, j_loss: 1.33074/66.00%,
fr_loss: 0.13856/86.00%, p_loss: 0.00019/100.00%,
total weighted loss: 3.42828
Training time elapsed: 0.99 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.48234/58.00%, bp_loss: 2.09235/43.00%, h
p_loss: 3.08260/22.00%, j_loss: 1.57185/61.00%,
fr_loss: 0.21146/78.00%, p_loss: 0.00004/100.00%,
total weighted loss: 4.07697
Part 2 - fp_loss: 1.28777/64.00%, bp_loss: 2.00844/44.00%, h
p_loss: 2.74995/32.00%, j_loss: 1.43912/63.00%,
fr_loss: 0.18005/82.00%, p_loss: 0.00005/100.00%,
total weighted loss: 3.69057
Part 3 - fp_loss: 1.19617/68.00%, bp_loss: 1.70997/52.00%, h
p_loss: 2.43747/37.00%, j_loss: 1.20720/68.00%,
fr_loss: 0.16989/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.21941
Part 4 - fp_loss: 1.16102/68.00%, bp_loss: 1.31427/65.00%, h
p_loss: 2.60512/31.00%, j_loss: 0.85929/75.00%,
fr_loss: 0.15278/84.00%, p_loss: 0.00011/100.00%,
total weighted loss: 2.76841
Training time elapsed: 37.42 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.44461/57.00%, bp_loss: 1.95360/45.00%, h
p_loss: 3.05307/23.00%, j_loss: 1.59362/60.00%,
fr_loss: 0.19835/80.00%, p_loss: 0.00003/100.00%,
total weighted loss: 4.01628
Part 2 - fp_loss: 1.32421/63.00%, bp_loss: 1.90114/46.00%, h
p_loss: 2.71010/31.00%, j_loss: 1.45850/62.00%,
fr_loss: 0.18999/81.00%, p_loss: 0.00003/100.00%,
total weighted loss: 3.69397
Part 3 - fp_loss: 1.33730/62.00%, bp_loss: 1.87931/50.00%, h
p_loss: 2.52951/34.00%, j_loss: 1.38950/65.00%,
fr_loss: 0.18890/81.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.56969
Part 4 - fp_loss: 1.14507/69.00%, bp_loss: 1.30807/67.00%, h
p_loss: 2.65297/31.00%, j_loss: 0.83882/76.00%,

fr_loss: 0.14213/85.00%, p_loss: 0.00012/100.00%,
total weighted loss: 2.74181
Training time elapsed: 73.87 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.45904/57.00%, bp_loss: 1.97554/45.00%, h
p_loss: 3.10478/22.00%, j_loss: 1.56671/62.00%,
fr_loss: 0.18353/81.00%, p_loss: 0.00002/100.00%,
total weighted loss: 4.00385
Part 2 - fp_loss: 1.32559/62.00%, bp_loss: 1.77327/52.00%, h
p_loss: 2.78649/29.00%, j_loss: 1.40670/63.00%,
fr_loss: 0.19358/80.00%, p_loss: 0.00004/100.00%,
total weighted loss: 3.63100
Part 3 - fp_loss: 1.17545/68.00%, bp_loss: 1.68396/53.00%, h
p_loss: 2.45057/37.00%, j_loss: 1.20255/70.00%,
fr_loss: 0.16399/84.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.19462
Part 4 - fp_loss: 1.18243/69.00%, bp_loss: 1.28327/68.00%, h
p_loss: 2.61369/33.00%, j_loss: 0.81737/75.00%,
fr_loss: 0.16190/84.00%, p_loss: 0.00015/100.00%,
total weighted loss: 2.73959

Training time elapsed: 110.29 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.36650/60.00%, bp_loss: 1.90017/48.00%, h
p_loss: 3.08875/22.00%, j_loss: 1.44694/63.00%,
fr_loss: 0.19034/80.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.81721
Part 2 - fp_loss: 1.16583/67.00%, bp_loss: 1.86812/48.00%, h
p_loss: 2.71265/32.00%, j_loss: 1.26375/66.00%,
fr_loss: 0.17168/83.00%, p_loss: 0.00003/100.00%,
total weighted loss: 3.39258
Part 3 - fp_loss: 1.19005/68.00%, bp_loss: 1.68788/56.00%, h
p_loss: 2.35386/39.00%, j_loss: 1.11776/70.00%,
fr_loss: 0.17712/82.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.10243
Part 4 - fp_loss: 1.17069/67.00%, bp_loss: 1.08376/72.00%, h
p_loss: 2.58753/34.00%, j_loss: 0.77133/78.00%,
fr_loss: 0.14504/85.00%, p_loss: 0.00014/100.00%,
total weighted loss: 2.60312

Training time elapsed: 146.71 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.37057/61.00%, bp_loss: 2.07986/44.00%, h
p_loss: 3.03408/23.00%, j_loss: 1.48769/63.00%,
fr_loss: 0.17993/81.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.88709
Part 2 - fp_loss: 1.28232/64.00%, bp_loss: 2.05630/47.00%, h
p_loss: 2.69678/31.00%, j_loss: 1.42191/63.00%,
fr_loss: 0.17333/82.00%, p_loss: 0.00003/100.00%,
total weighted loss: 3.66233
Part 3 - fp_loss: 1.21810/66.00%, bp_loss: 1.58977/59.00%, h
p_loss: 2.40134/38.00%, j_loss: 1.15631/70.00%,

fr_loss: 0.17840/82.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.14110
Part 4 - fp_loss: 1.11248/68.00%, bp_loss: 1.32873/66.00%, h
p_loss: 2.54220/34.00%, j_loss: 0.93613/73.00%,
fr_loss: 0.15091/85.00%, p_loss: 0.00013/100.00%,
total weighted loss: 2.80458
Training time elapsed: 183.09 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.43006/60.00%, bp_loss: 1.87286/49.00%, h
p_loss: 3.08458/22.00%, j_loss: 1.42956/64.00%,
fr_loss: 0.21384/79.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.84566
Part 2 - fp_loss: 1.28922/64.00%, bp_loss: 2.28271/37.00%, h
p_loss: 2.75321/30.00%, j_loss: 1.52905/64.00%,
fr_loss: 0.19341/81.00%, p_loss: 0.00003/100.00%,
total weighted loss: 3.87784
Part 3 - fp_loss: 1.25986/65.00%, bp_loss: 1.44581/62.00%, h
p_loss: 2.40593/35.00%, j_loss: 1.07985/69.00%,
fr_loss: 0.16606/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.03135
Part 4 - fp_loss: 1.20844/67.00%, bp_loss: 1.06758/73.00%, h
p_loss: 2.55363/35.00%, j_loss: 0.73365/79.00%,
fr_loss: 0.16533/83.00%, p_loss: 0.00012/100.00%,
total weighted loss: 2.58958
Training time elapsed: 219.50 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.39433/60.00%, bp_loss: 1.83028/51.00%, h
p_loss: 3.08764/22.00%, j_loss: 1.41810/65.00%,
fr_loss: 0.17694/82.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.76758
Part 2 - fp_loss: 1.32205/61.00%, bp_loss: 2.41314/35.00%, h
p_loss: 2.71997/30.00%, j_loss: 1.66354/62.00%,
fr_loss: 0.17949/81.00%, p_loss: 0.00003/100.00%,
total weighted loss: 4.04399
Part 3 - fp_loss: 1.21328/67.00%, bp_loss: 1.40880/62.00%, h
p_loss: 2.47118/34.00%, j_loss: 1.05485/70.00%,
fr_loss: 0.16425/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.98974
Part 4 - fp_loss: 1.14530/67.00%, bp_loss: 1.51644/62.00%, h
p_loss: 2.58761/34.00%, j_loss: 0.96223/72.00%,
fr_loss: 0.16044/83.00%, p_loss: 0.00009/100.00%,
total weighted loss: 2.92654
Training time elapsed: 255.95 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.38022/61.00%, bp_loss: 1.76369/52.00%, h
p_loss: 3.04990/23.00%, j_loss: 1.35863/63.00%,
fr_loss: 0.17341/82.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.66623
Part 2 - fp_loss: 1.29340/64.00%, bp_loss: 2.07448/43.00%, h
p_loss: 2.71940/32.00%, j_loss: 1.44749/63.00%,

```
fr_loss: 0.18715/81.00%, p_loss: 0.00003/100.00%,
total weighted loss: 3.71950
Part 3 - fp_loss: 1.14900/67.00%, bp_loss: 1.53503/60.00%, h
p_loss: 2.38568/38.00%, j_loss: 1.03250/69.00%,
fr_loss: 0.15135/85.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.93456
Part 4 - fp_loss: 1.15296/66.00%, bp_loss: 1.32979/67.00%, h
p_loss: 2.55591/33.00%, j_loss: 0.89122/74.00%,
fr_loss: 0.15286/84.00%, p_loss: 0.00011/100.00%,
total weighted loss: 2.78629
Training time elapsed: 292.32 seconds
```

Valid iter 0/160:

```
Part 1 - fp_loss: 1.61699/54.00%, bp_loss: 1.89273/50.00%, h
p_loss: 3.08000/28.00%, j_loss: 1.72121/56.00%,
fr_loss: 0.22955/77.00%, p_loss: 0.00002/100.00%,
total weighted loss: 8.54050
Part 2 - fp_loss: 1.43458/60.00%, bp_loss: 2.16363/45.00%, h
p_loss: 2.56214/41.00%, j_loss: 1.62262/60.00%,
fr_loss: 0.24354/75.00%, p_loss: 0.00002/100.00%,
total weighted loss: 8.02655
Part 3 - fp_loss: 1.09732/69.00%, bp_loss: 1.77264/52.00%, h
p_loss: 2.01864/50.00%, j_loss: 1.34582/63.00%,
fr_loss: 0.20503/79.00%, p_loss: 0.00002/100.00%,
total weighted loss: 6.43947
Part 4 - fp_loss: 1.22522/68.00%, bp_loss: 2.04567/49.00%, h
p_loss: 2.21022/44.00%, j_loss: 1.31017/61.00%,
fr_loss: 0.21345/78.00%, p_loss: 0.00006/100.00%,
total weighted loss: 7.00479
`Validation time elapsed: 0.73 seconds
`
```

Valid iter 100/160:

```
Part 1 - fp_loss: 1.70294/54.00%, bp_loss: 2.18401/47.00%, h
p_loss: 3.13981/24.00%, j_loss: 1.69980/57.00%,
fr_loss: 0.23159/77.00%, p_loss: 0.00002/100.00%,
total weighted loss: 8.95816
Part 2 - fp_loss: 1.29496/63.00%, bp_loss: 2.20092/40.00%, h
p_loss: 2.57718/42.00%, j_loss: 1.55554/62.00%,
fr_loss: 0.23030/77.00%, p_loss: 0.00002/100.00%,
total weighted loss: 7.85892
Part 3 - fp_loss: 1.03749/71.00%, bp_loss: 1.53547/64.00%, h
p_loss: 1.99865/50.00%, j_loss: 0.96445/75.00%,
fr_loss: 0.17980/82.00%, p_loss: 0.00001/100.00%,
total weighted loss: 5.71587
Part 4 - fp_loss: 1.18480/67.00%, bp_loss: 1.55336/61.00%, h
p_loss: 2.20256/43.00%, j_loss: 0.98227/71.00%,
fr_loss: 0.20432/79.00%, p_loss: 0.00005/100.00%,
total weighted loss: 6.12736
`Validation time elapsed: 9.53 seconds
`
```

Completed epoch 3.

EPOCH 4

Train iter 0/802:

Part 1 - fp_loss: 1.33995/61.00%, bp_loss: 1.69065/54.00%, h
p_loss: 3.12339/22.00%, j_loss: 1.39204/63.00%,
fr_loss: 0.18497/81.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.69121

Part 2 - fp_loss: 1.31434/64.00%, bp_loss: 2.12024/44.00%, h
p_loss: 2.68261/33.00%, j_loss: 1.47452/63.00%,
fr_loss: 0.19241/80.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.76496

Part 3 - fp_loss: 1.07142/71.00%, bp_loss: 1.63043/57.00%, h
p_loss: 2.41804/37.00%, j_loss: 1.13437/69.00%,
fr_loss: 0.16060/84.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.04523

Part 4 - fp_loss: 1.14300/67.00%, bp_loss: 1.69919/60.00%, h
p_loss: 2.54226/33.00%, j_loss: 1.02346/70.00%,
fr_loss: 0.14367/85.00%, p_loss: 0.00006/100.00%,
total weighted loss: 3.01106

Training time elapsed: 1.01 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.40901/57.00%, bp_loss: 2.55557/34.00%, h
p_loss: 3.05494/21.00%, j_loss: 1.74590/51.00%,
fr_loss: 0.20399/79.00%, p_loss: 0.00002/100.00%,
total weighted loss: 4.33754

Part 2 - fp_loss: 1.20991/64.00%, bp_loss: 2.10327/44.00%, h
p_loss: 2.73244/32.00%, j_loss: 1.46680/64.00%,
fr_loss: 0.14429/85.00%, p_loss: 0.00003/100.00%,
total weighted loss: 3.66676

Part 3 - fp_loss: 1.11229/68.00%, bp_loss: 1.33630/65.00%, h
p_loss: 2.53888/34.00%, j_loss: 0.98416/75.00%,
fr_loss: 0.14922/85.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.85208

Part 4 - fp_loss: 1.12012/70.00%, bp_loss: 1.38345/66.00%, h
p_loss: 2.70029/31.00%, j_loss: 0.86892/77.00%,
fr_loss: 0.13544/86.00%, p_loss: 0.00005/100.00%,
total weighted loss: 2.78955

Training time elapsed: 38.39 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.29560/62.00%, bp_loss: 1.86801/52.00%, h
p_loss: 2.96088/26.00%, j_loss: 1.34533/64.00%,
fr_loss: 0.16691/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.60871

Part 2 - fp_loss: 1.20658/65.00%, bp_loss: 1.99171/46.00%, h
p_loss: 2.73782/31.00%, j_loss: 1.32156/66.00%,
fr_loss: 0.16473/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.50845

Part 3 - fp_loss: 1.14337/68.00%, bp_loss: 1.32718/66.00%, h
p_loss: 2.37451/38.00%, j_loss: 0.92369/71.00%,
fr_loss: 0.16348/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.76937

Part 4 - fp_loss: 1.14534/67.00%, bp_loss: 1.20741/69.00%, h
p_loss: 2.58252/33.00%, j_loss: 0.76802/79.00%,
fr_loss: 0.14714/85.00%, p_loss: 0.00007/100.00%,
total weighted loss: 2.62482
Training time elapsed: 75.81 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.44071/56.00%, bp_loss: 1.79082/53.00%, h
p_loss: 3.02245/22.00%, j_loss: 1.43849/62.00%,
fr_loss: 0.18645/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.78928
Part 2 - fp_loss: 1.28714/63.00%, bp_loss: 2.02055/44.00%, h
p_loss: 2.79104/29.00%, j_loss: 1.41809/63.00%,
fr_loss: 0.17362/82.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.67876
Part 3 - fp_loss: 1.18558/68.00%, bp_loss: 1.25520/67.00%, h
p_loss: 2.44003/36.00%, j_loss: 0.91916/75.00%,
fr_loss: 0.14447/85.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.76499
Part 4 - fp_loss: 1.19590/66.00%, bp_loss: 1.17803/71.00%, h
p_loss: 2.64951/32.00%, j_loss: 0.85125/77.00%,
fr_loss: 0.14111/86.00%, p_loss: 0.00011/100.00%,
total weighted loss: 2.73858
Training time elapsed: 113.23 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.40420/59.00%, bp_loss: 2.15591/47.00%, h
p_loss: 3.12289/22.00%, j_loss: 1.46527/61.00%,
fr_loss: 0.16766/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.91866
Part 2 - fp_loss: 1.26703/65.00%, bp_loss: 1.81720/50.00%, h
p_loss: 2.75464/30.00%, j_loss: 1.26776/65.00%,
fr_loss: 0.17400/82.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.44683
Part 3 - fp_loss: 1.19003/68.00%, bp_loss: 1.23620/68.00%, h
p_loss: 2.46512/36.00%, j_loss: 0.90420/75.00%,
fr_loss: 0.15813/84.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.76775
Part 4 - fp_loss: 1.11693/68.00%, bp_loss: 1.22700/68.00%, h
p_loss: 2.63455/32.00%, j_loss: 0.79718/80.00%,
fr_loss: 0.15256/84.00%, p_loss: 0.00006/100.00%,
total weighted loss: 2.66667
Training time elapsed: 150.61 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.38883/60.00%, bp_loss: 2.13380/48.00%, h
p_loss: 3.16989/20.00%, j_loss: 1.45539/62.00%,
fr_loss: 0.18647/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.92739
Part 2 - fp_loss: 1.28947/61.00%, bp_loss: 1.92812/48.00%, h
p_loss: 2.78709/29.00%, j_loss: 1.37969/63.00%,
fr_loss: 0.18633/81.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.62533

Part 3 - fp_loss: 1.11182/71.00%, bp_loss: 1.19997/69.00%, h
p_loss: 2.46015/37.00%, j_loss: 0.82206/77.00%,
fr_loss: 0.18269/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.65869
Part 4 - fp_loss: 1.18199/68.00%, bp_loss: 1.23831/67.00%, h
p_loss: 2.66995/31.00%, j_loss: 0.86799/74.00%,
fr_loss: 0.14738/85.00%, p_loss: 0.00005/100.00%,
total weighted loss: 2.77885
Training time elapsed: 188.00 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.27175/62.00%, bp_loss: 1.72381/54.00%, h
p_loss: 3.04147/22.00%, j_loss: 1.25442/68.00%,
fr_loss: 0.17903/82.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.49891
Part 2 - fp_loss: 1.33400/64.00%, bp_loss: 2.09828/44.00%, h
p_loss: 2.79018/28.00%, j_loss: 1.37820/66.00%,
fr_loss: 0.17740/82.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.68915
Part 3 - fp_loss: 1.21017/67.00%, bp_loss: 1.23151/69.00%, h
p_loss: 2.47169/35.00%, j_loss: 0.87850/75.00%,
fr_loss: 0.14991/84.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.74446
Part 4 - fp_loss: 1.10870/68.00%, bp_loss: 1.42192/67.00%, h
p_loss: 2.67375/30.00%, j_loss: 0.83765/75.00%,
fr_loss: 0.13972/86.00%, p_loss: 0.00006/100.00%,
total weighted loss: 2.76043
Training time elapsed: 225.38 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.46154/57.00%, bp_loss: 1.77056/54.00%, h
p_loss: 3.04683/23.00%, j_loss: 1.46566/62.00%,
fr_loss: 0.20572/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.84737
Part 2 - fp_loss: 1.27486/63.00%, bp_loss: 1.87231/50.00%, h
p_loss: 2.66070/32.00%, j_loss: 1.37377/63.00%,
fr_loss: 0.17960/82.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.55070
Part 3 - fp_loss: 1.16155/68.00%, bp_loss: 1.22112/70.00%, h
p_loss: 2.42601/36.00%, j_loss: 0.90015/77.00%,
fr_loss: 0.16667/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.74173
Part 4 - fp_loss: 1.18123/66.00%, bp_loss: 1.29256/66.00%, h
p_loss: 2.66709/32.00%, j_loss: 0.88963/75.00%,
fr_loss: 0.14868/85.00%, p_loss: 0.00007/100.00%,
total weighted loss: 2.81683
Training time elapsed: 262.79 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.38630/59.00%, bp_loss: 2.31555/43.00%, h
p_loss: 3.12409/21.00%, j_loss: 1.55509/61.00%,
fr_loss: 0.17168/82.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.05182

Part 2 - fp_loss: 1.30741/62.00%, bp_loss: 1.73282/53.00%, h
p_loss: 2.80155/28.00%, j_loss: 1.33900/66.00%,
fr_loss: 0.17739/82.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.53041
Part 3 - fp_loss: 1.18006/68.00%, bp_loss: 1.17859/69.00%, h
p_loss: 2.40725/37.00%, j_loss: 0.91341/74.00%,
fr_loss: 0.16491/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.74411
Part 4 - fp_loss: 1.13933/68.00%, bp_loss: 1.19835/68.00%, h
p_loss: 2.65000/31.00%, j_loss: 0.81276/76.00%,
fr_loss: 0.15553/84.00%, p_loss: 0.00005/100.00%,
total weighted loss: 2.69247
Training time elapsed: 300.16 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.68672/51.00%, bp_loss: 2.06051/46.00%, h
p_loss: 2.98979/29.00%, j_loss: 1.84600/52.00%,
fr_loss: 0.24156/75.00%, p_loss: 0.00001/100.00%,
total weighted loss: 8.82460
Part 2 - fp_loss: 1.37166/61.00%, bp_loss: 2.37527/42.00%, h
p_loss: 2.59049/41.00%, j_loss: 1.70210/58.00%,
fr_loss: 0.23189/77.00%, p_loss: 0.00001/100.00%,
total weighted loss: 8.27142
Part 3 - fp_loss: 1.09988/69.00%, bp_loss: 1.64514/52.00%, h
p_loss: 1.99331/51.00%, j_loss: 1.37611/62.00%,
fr_loss: 0.18940/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 6.30385
Part 4 - fp_loss: 1.19579/68.00%, bp_loss: 2.14927/47.00%, h
p_loss: 2.26797/42.00%, j_loss: 1.39228/55.00%,
fr_loss: 0.19818/80.00%, p_loss: 0.00005/100.00%,
total weighted loss: 7.20354
`Validation time elapsed: 0.71 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.77144/49.00%, bp_loss: 2.35391/43.00%, h
p_loss: 2.98923/28.00%, j_loss: 1.86807/51.00%,
fr_loss: 0.25678/74.00%, p_loss: 0.00001/100.00%,
total weighted loss: 9.23944
Part 2 - fp_loss: 1.28178/61.00%, bp_loss: 1.87399/51.00%, h
p_loss: 2.53419/42.00%, j_loss: 1.41500/63.00%,
fr_loss: 0.23131/77.00%, p_loss: 0.00001/100.00%,
total weighted loss: 7.33629
Part 3 - fp_loss: 1.20509/67.00%, bp_loss: 1.34261/67.00%, h
p_loss: 2.04564/48.00%, j_loss: 1.01789/72.00%,
fr_loss: 0.22143/77.00%, p_loss: 0.00001/100.00%,
total weighted loss: 5.83267
Part 4 - fp_loss: 1.18597/69.00%, bp_loss: 1.35769/65.00%, h
p_loss: 2.22374/46.00%, j_loss: 0.91564/71.00%,
fr_loss: 0.19188/80.00%, p_loss: 0.00006/100.00%,
total weighted loss: 5.87498
`Validation time elapsed: 9.50 seconds
`

Completed epoch 4.

EPOCH 5

Train iter 0/802:

Part 1 - fp_loss: 1.36007/60.00%, bp_loss: 2.06719/44.00%, h
p_loss: 3.13062/21.00%, j_loss: 1.58020/62.00%,
fr_loss: 0.18721/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.00679

Part 2 - fp_loss: 1.24144/65.00%, bp_loss: 2.36589/41.00%, h
p_loss: 2.74759/29.00%, j_loss: 1.53634/62.00%,
fr_loss: 0.17122/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.86232

Part 3 - fp_loss: 1.08603/71.00%, bp_loss: 1.53641/56.00%, h
p_loss: 2.41113/37.00%, j_loss: 1.15276/66.00%,
fr_loss: 0.14564/85.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.02567

Part 4 - fp_loss: 1.03310/71.00%, bp_loss: 1.60379/62.00%, h
p_loss: 2.61723/34.00%, j_loss: 0.94391/73.00%,
fr_loss: 0.13405/86.00%, p_loss: 0.00007/100.00%,
total weighted loss: 2.86082

Training time elapsed: 1.07 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.34423/59.00%, bp_loss: 1.93648/53.00%, h
p_loss: 3.06448/22.00%, j_loss: 1.36779/63.00%,
fr_loss: 0.18490/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.72509

Part 2 - fp_loss: 1.25456/64.00%, bp_loss: 1.89996/48.00%, h
p_loss: 2.79917/27.00%, j_loss: 1.35666/64.00%,
fr_loss: 0.16293/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.55661

Part 3 - fp_loss: 1.12753/68.00%, bp_loss: 1.23168/68.00%, h
p_loss: 2.44926/37.00%, j_loss: 0.89301/74.00%,
fr_loss: 0.15051/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.71158

Part 4 - fp_loss: 1.08097/70.00%, bp_loss: 1.44406/65.00%, h
p_loss: 2.61006/32.00%, j_loss: 0.84362/75.00%,
fr_loss: 0.12498/87.00%, p_loss: 0.00007/100.00%,
total weighted loss: 2.72533

Training time elapsed: 38.50 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.29199/62.00%, bp_loss: 1.87104/55.00%, h
p_loss: 3.11556/21.00%, j_loss: 1.29263/65.00%,
fr_loss: 0.15375/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.58835

Part 2 - fp_loss: 1.25720/63.00%, bp_loss: 1.80697/51.00%, h
p_loss: 2.76236/30.00%, j_loss: 1.31883/64.00%,
fr_loss: 0.18414/81.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.50238

Part 3 - fp_loss: 1.18871/69.00%, bp_loss: 1.12187/72.00%, h
p_loss: 2.40516/37.00%, j_loss: 0.93917/78.00%,

fr_loss: 0.16669/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.75833
Part 4 - fp_loss: 1.06693/70.00%, bp_loss: 1.24700/69.00%, h
p_loss: 2.63327/31.00%, j_loss: 0.74786/80.00%,
fr_loss: 0.13149/86.00%, p_loss: 0.00008/100.00%,
total weighted loss: 2.57691
Training time elapsed: 75.95 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.36072/60.00%, bp_loss: 1.84973/53.00%, h
p_loss: 3.05698/22.00%, j_loss: 1.35604/64.00%,
fr_loss: 0.15612/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.66453
Part 2 - fp_loss: 1.26480/65.00%, bp_loss: 1.73269/54.00%, h
p_loss: 2.72484/31.00%, j_loss: 1.25586/66.00%,
fr_loss: 0.16823/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.39374
Part 3 - fp_loss: 1.18584/69.00%, bp_loss: 1.15027/70.00%, h
p_loss: 2.38234/37.00%, j_loss: 0.87400/76.00%,
fr_loss: 0.16796/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.69467
Part 4 - fp_loss: 1.09108/69.00%, bp_loss: 1.26833/68.00%, h
p_loss: 2.59520/30.00%, j_loss: 0.80119/78.00%,
fr_loss: 0.14243/85.00%, p_loss: 0.00005/100.00%,
total weighted loss: 2.64822
Training time elapsed: 113.34 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.40168/59.00%, bp_loss: 1.79420/55.00%, h
p_loss: 3.06238/22.00%, j_loss: 1.29952/67.00%,
fr_loss: 0.18069/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.63802
Part 2 - fp_loss: 1.27846/64.00%, bp_loss: 1.61815/58.00%, h
p_loss: 2.69670/32.00%, j_loss: 1.21653/65.00%,
fr_loss: 0.18922/81.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.33944
Part 3 - fp_loss: 1.23539/65.00%, bp_loss: 1.14669/71.00%, h
p_loss: 2.45442/36.00%, j_loss: 0.84489/77.00%,
fr_loss: 0.16891/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.71183
Part 4 - fp_loss: 1.11641/68.00%, bp_loss: 1.26061/69.00%, h
p_loss: 2.56006/34.00%, j_loss: 0.80758/77.00%,
fr_loss: 0.16875/83.00%, p_loss: 0.00007/100.00%,
total weighted loss: 2.68074
Training time elapsed: 150.75 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.36696/61.00%, bp_loss: 2.16280/48.00%, h
p_loss: 3.04044/22.00%, j_loss: 1.51019/58.00%,
fr_loss: 0.17351/82.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.92815
Part 2 - fp_loss: 1.46040/61.00%, bp_loss: 1.71183/54.00%, h
p_loss: 2.70540/31.00%, j_loss: 1.36249/61.00%,

fr_loss: 0.20798/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.62584
Part 3 - fp_loss: 1.14095/68.00%, bp_loss: 1.27554/69.00%, h
p_loss: 2.45269/36.00%, j_loss: 0.89455/76.00%,
fr_loss: 0.15425/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.73775
Part 4 - fp_loss: 1.14808/70.00%, bp_loss: 1.32190/66.00%, h
p_loss: 2.61405/31.00%, j_loss: 0.78905/76.00%,
fr_loss: 0.15105/84.00%, p_loss: 0.00006/100.00%,
total weighted loss: 2.69493
Training time elapsed: 188.18 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.39493/58.00%, bp_loss: 1.73657/55.00%, h
p_loss: 3.06656/22.00%, j_loss: 1.34397/65.00%,
fr_loss: 0.18599/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.66837
Part 2 - fp_loss: 2.11636/44.00%, bp_loss: 1.71980/54.00%, h
p_loss: 2.75664/29.00%, j_loss: 1.78400/55.00%,
fr_loss: 0.30735/68.00%, p_loss: 0.00002/100.00%,
total weighted loss: 4.49246
Part 3 - fp_loss: 1.14212/68.00%, bp_loss: 1.50395/60.00%, h
p_loss: 2.43232/38.00%, j_loss: 1.03220/71.00%,
fr_loss: 0.15929/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.94343
Part 4 - fp_loss: 1.18857/68.00%, bp_loss: 1.16318/69.00%, h
p_loss: 2.67631/32.00%, j_loss: 0.80256/76.00%,
fr_loss: 0.15992/84.00%, p_loss: 0.00005/100.00%,
total weighted loss: 2.70862
Training time elapsed: 225.62 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.40442/62.00%, bp_loss: 1.96201/54.00%, h
p_loss: 3.01666/23.00%, j_loss: 1.34061/63.00%,
fr_loss: 0.17545/82.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.71187
Part 2 - fp_loss: 1.96276/51.00%, bp_loss: 1.50957/62.00%, h
p_loss: 2.68910/31.00%, j_loss: 1.41931/62.00%,
fr_loss: 0.26253/74.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.92282
Part 3 - fp_loss: 1.16729/68.00%, bp_loss: 1.09388/71.00%, h
p_loss: 2.39846/36.00%, j_loss: 0.75903/78.00%,
fr_loss: 0.15120/85.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.54158
Part 4 - fp_loss: 1.15500/67.00%, bp_loss: 1.33842/65.00%, h
p_loss: 2.58732/30.00%, j_loss: 0.90255/75.00%,
fr_loss: 0.13668/86.00%, p_loss: 0.00004/100.00%,
total weighted loss: 2.79446
Training time elapsed: 263.05 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.34860/60.00%, bp_loss: 1.67266/58.00%, h
p_loss: 3.06298/22.00%, j_loss: 1.22450/68.00%,

fr_loss: 0.17656/82.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.49605
Part 2 - fp_loss: 1.84780/54.00%, bp_loss: 1.63946/58.00%, h
p_loss: 2.73095/30.00%, j_loss: 1.42282/62.00%,
fr_loss: 0.26728/73.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.92513
Part 3 - fp_loss: 1.12633/69.00%, bp_loss: 1.06410/72.00%, h
p_loss: 2.39184/37.00%, j_loss: 0.78098/78.00%,
fr_loss: 0.13852/86.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.51944
Part 4 - fp_loss: 1.19013/69.00%, bp_loss: 1.24872/68.00%, h
p_loss: 2.61884/31.00%, j_loss: 0.75339/80.00%,
fr_loss: 0.14794/85.00%, p_loss: 0.00006/100.00%,
total weighted loss: 2.65667
Training time elapsed: 300.45 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.73759/51.00%, bp_loss: 2.05511/45.00%, h
p_loss: 3.11502/26.00%, j_loss: 1.84734/55.00%,
fr_loss: 0.21262/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 8.96770
Part 2 - fp_loss: 1.64926/58.00%, bp_loss: 2.13224/45.00%, h
p_loss: 2.55332/43.00%, j_loss: 1.69386/48.00%,
fr_loss: 0.28250/72.00%, p_loss: 0.00001/100.00%,
total weighted loss: 8.31119
Part 3 - fp_loss: 1.11119/70.00%, bp_loss: 1.57120/58.00%, h
p_loss: 1.95801/50.00%, j_loss: 1.15395/67.00%,
fr_loss: 0.19940/80.00%, p_loss: 0.00001/100.00%,
total weighted loss: 5.99377
Part 4 - fp_loss: 1.13952/70.00%, bp_loss: 2.17161/53.00%, h
p_loss: 2.22931/45.00%, j_loss: 1.33182/58.00%,
fr_loss: 0.21602/78.00%, p_loss: 0.00003/100.00%,
total weighted loss: 7.08830
`Validation time elapsed: 0.72 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.68967/52.00%, bp_loss: 2.00967/50.00%, h
p_loss: 3.05677/26.00%, j_loss: 1.68194/58.00%,
fr_loss: 0.24024/76.00%, p_loss: 0.00001/100.00%,
total weighted loss: 8.67832
Part 2 - fp_loss: 1.67539/56.00%, bp_loss: 1.78122/56.00%, h
p_loss: 2.57458/41.00%, j_loss: 1.51318/58.00%,
fr_loss: 0.32263/67.00%, p_loss: 0.00001/100.00%,
total weighted loss: 7.86702
Part 3 - fp_loss: 1.16154/66.00%, bp_loss: 1.26855/70.00%, h
p_loss: 1.99197/50.00%, j_loss: 0.90571/74.00%,
fr_loss: 0.20440/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 5.53218
Part 4 - fp_loss: 1.16455/69.00%, bp_loss: 1.33759/68.00%, h
p_loss: 2.20929/44.00%, j_loss: 0.77556/79.00%,
fr_loss: 0.20129/80.00%, p_loss: 0.00004/100.00%,
total weighted loss: 5.68832
`Validation time elapsed: 9.52 seconds

Completed epoch 5.

EPOCH 6

Train iter 0/802:

Part 1 - fp_loss: 1.30876/61.00%, bp_loss: 1.85111/50.00%, h
p_loss: 3.02380/23.00%, j_loss: 1.47796/63.00%,
fr_loss: 0.18690/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.78172
Part 2 - fp_loss: 1.86593/50.00%, bp_loss: 2.00150/48.00%, h
p_loss: 2.76107/29.00%, j_loss: 1.72270/50.00%,
fr_loss: 0.28097/72.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.36541
Part 3 - fp_loss: 1.24553/66.00%, bp_loss: 1.29966/64.00%, h
p_loss: 2.47025/35.00%, j_loss: 0.97029/75.00%,
fr_loss: 0.15308/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.87711
Part 4 - fp_loss: 1.28526/65.00%, bp_loss: 1.66907/63.00%, h
p_loss: 2.63007/32.00%, j_loss: 1.09005/69.00%,
fr_loss: 0.15700/84.00%, p_loss: 0.00007/100.00%,
total weighted loss: 3.17943
Training time elapsed: 1.02 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.33797/62.00%, bp_loss: 1.58428/59.00%, h
p_loss: 3.06772/23.00%, j_loss: 1.13961/70.00%,
fr_loss: 0.17521/82.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.37941
Part 2 - fp_loss: 2.07737/47.00%, bp_loss: 1.59969/60.00%, h
p_loss: 2.67804/32.00%, j_loss: 1.56949/61.00%,
fr_loss: 0.31144/69.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.20294
Part 3 - fp_loss: 1.16482/70.00%, bp_loss: 1.17463/71.00%, h
p_loss: 2.41832/36.00%, j_loss: 0.80785/77.00%,
fr_loss: 0.16063/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.62878
Part 4 - fp_loss: 1.06353/69.00%, bp_loss: 1.18512/70.00%, h
p_loss: 2.58084/33.00%, j_loss: 0.73721/80.00%,
fr_loss: 0.13234/87.00%, p_loss: 0.00005/100.00%,
total weighted loss: 2.53111
Training time elapsed: 37.75 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.39324/59.00%, bp_loss: 1.90236/54.00%, h
p_loss: 3.05131/22.00%, j_loss: 1.35110/64.00%,
fr_loss: 0.17866/82.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.71248
Part 2 - fp_loss: 2.15528/47.00%, bp_loss: 1.59773/58.00%, h
p_loss: 2.71408/30.00%, j_loss: 1.65133/59.00%,
fr_loss: 0.34041/66.00%, p_loss: 0.00002/100.00%,
total weighted loss: 4.36293

Part 3 - fp_loss: 1.15954/68.00%, bp_loss: 1.02552/72.00%, h
p_loss: 2.49213/35.00%, j_loss: 0.78342/77.00%,
fr_loss: 0.13323/87.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.55172
Part 4 - fp_loss: 1.14603/68.00%, bp_loss: 1.11751/71.00%, h
p_loss: 2.66185/32.00%, j_loss: 0.74303/78.00%,
fr_loss: 0.15616/84.00%, p_loss: 0.00005/100.00%,
total weighted loss: 2.60602
Training time elapsed: 74.48 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.33027/59.00%, bp_loss: 1.76166/54.00%, h
p_loss: 3.08351/22.00%, j_loss: 1.42117/63.00%,
fr_loss: 0.16042/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.70028
Part 2 - fp_loss: 2.60686/37.00%, bp_loss: 1.53386/62.00%, h
p_loss: 2.79184/29.00%, j_loss: 1.69369/60.00%,
fr_loss: 0.40019/59.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.69502
Part 3 - fp_loss: 1.22549/66.00%, bp_loss: 1.07717/74.00%, h
p_loss: 2.42349/35.00%, j_loss: 0.77072/78.00%,
fr_loss: 0.16607/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.59973
Part 4 - fp_loss: 1.24637/66.00%, bp_loss: 1.12974/71.00%, h
p_loss: 2.57930/34.00%, j_loss: 0.83162/79.00%,
fr_loss: 0.17855/82.00%, p_loss: 0.00004/100.00%,
total weighted loss: 2.74607
Training time elapsed: 111.17 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.39401/59.00%, bp_loss: 1.63174/55.00%, h
p_loss: 3.12382/20.00%, j_loss: 1.30054/68.00%,
fr_loss: 0.18121/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.60543
Part 2 - fp_loss: 2.08452/47.00%, bp_loss: 1.46763/62.00%, h
p_loss: 2.77664/27.00%, j_loss: 1.50740/62.00%,
fr_loss: 0.37695/62.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.19989
Part 3 - fp_loss: 1.10781/70.00%, bp_loss: 1.03465/76.00%, h
p_loss: 2.48109/36.00%, j_loss: 0.72459/80.00%,
fr_loss: 0.14633/85.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.47954
Part 4 - fp_loss: 1.18445/68.00%, bp_loss: 1.06715/73.00%, h
p_loss: 2.70290/31.00%, j_loss: 0.66503/81.00%,
fr_loss: 0.16745/83.00%, p_loss: 0.00003/100.00%,
total weighted loss: 2.55572
Training time elapsed: 147.97 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.37958/60.00%, bp_loss: 1.75285/56.00%, h
p_loss: 3.06724/23.00%, j_loss: 1.28597/64.00%,
fr_loss: 0.20367/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.62546

Part 2 - fp_loss: 2.06681/50.00%, bp_loss: 1.42542/64.00%, h
p_loss: 2.73503/31.00%, j_loss: 1.35758/64.00%,
fr_loss: 0.35843/64.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.99756
Part 3 - fp_loss: 1.12617/68.00%, bp_loss: 0.95790/75.00%, h
p_loss: 2.40248/38.00%, j_loss: 0.74405/79.00%,
fr_loss: 0.14751/85.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.46275
Part 4 - fp_loss: 1.13457/68.00%, bp_loss: 1.23098/68.00%, h
p_loss: 2.58242/35.00%, j_loss: 0.77675/78.00%,
fr_loss: 0.16440/83.00%, p_loss: 0.00004/100.00%,
total weighted loss: 2.65246
Training time elapsed: 184.68 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.41908/58.00%, bp_loss: 1.55040/59.00%, h
p_loss: 3.06629/21.00%, j_loss: 1.22543/69.00%,
fr_loss: 0.17092/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.49091
Part 2 - fp_loss: 2.05382/48.00%, bp_loss: 1.43350/63.00%, h
p_loss: 2.69657/30.00%, j_loss: 1.49543/63.00%,
fr_loss: 0.34295/65.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.10431
Part 3 - fp_loss: 1.14857/67.00%, bp_loss: 1.08266/73.00%, h
p_loss: 2.44921/36.00%, j_loss: 0.79365/80.00%,
fr_loss: 0.13984/85.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.56733
Part 4 - fp_loss: 1.22606/67.00%, bp_loss: 1.79696/58.00%, h
p_loss: 2.70738/29.00%, j_loss: 1.09525/70.00%,
fr_loss: 0.13876/86.00%, p_loss: 0.00005/100.00%,
total weighted loss: 3.19836
Training time elapsed: 221.42 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.35906/60.00%, bp_loss: 1.50684/60.00%, h
p_loss: 3.04849/22.00%, j_loss: 1.22765/70.00%,
fr_loss: 0.17374/82.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.44752
Part 2 - fp_loss: 2.01661/50.00%, bp_loss: 1.35053/65.00%, h
p_loss: 2.72888/30.00%, j_loss: 1.33552/65.00%,
fr_loss: 0.31299/69.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.88064
Part 3 - fp_loss: 1.12966/68.00%, bp_loss: 0.98623/75.00%, h
p_loss: 2.30721/39.00%, j_loss: 0.74864/79.00%,
fr_loss: 0.15295/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.45445
Part 4 - fp_loss: 1.15998/67.00%, bp_loss: 1.18027/72.00%, h
p_loss: 2.59504/33.00%, j_loss: 0.70012/80.00%,
fr_loss: 0.14972/85.00%, p_loss: 0.00003/100.00%,
total weighted loss: 2.56242
Training time elapsed: 258.13 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.43518/56.00%, bp_loss: 1.49299/59.00%, h
p_loss: 3.08243/21.00%, j_loss: 1.29593/67.00%,
fr_loss: 0.18828/80.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.57443
Part 2 - fp_loss: 1.99997/48.00%, bp_loss: 1.52773/60.00%, h
p_loss: 2.77088/30.00%, j_loss: 1.60126/60.00%,
fr_loss: 0.31331/69.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.20414
Part 3 - fp_loss: 1.16564/69.00%, bp_loss: 1.01476/74.00%, h
p_loss: 2.38919/38.00%, j_loss: 0.74741/78.00%,
fr_loss: 0.16180/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.51321
Part 4 - fp_loss: 1.19147/66.00%, bp_loss: 1.18067/69.00%, h
p_loss: 2.62665/32.00%, j_loss: 0.84264/78.00%,
fr_loss: 0.14682/85.00%, p_loss: 0.00004/100.00%,
total weighted loss: 2.72739
Training time elapsed: 294.83 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.70655/53.00%, bp_loss: 1.90952/51.00%, h
p_loss: 3.09823/25.00%, j_loss: 1.73171/56.00%,
fr_loss: 0.25513/74.00%, p_loss: 0.00001/100.00%,
total weighted loss: 8.70115
Part 2 - fp_loss: 1.79096/50.00%, bp_loss: 1.93365/48.00%, h
p_loss: 2.56773/42.00%, j_loss: 1.93664/48.00%,
fr_loss: 0.31393/69.00%, p_loss: 0.00001/100.00%,
total weighted loss: 8.54292
Part 3 - fp_loss: 1.07476/72.00%, bp_loss: 1.57463/61.00%, h
p_loss: 1.96815/51.00%, j_loss: 1.04307/68.00%,
fr_loss: 0.19594/80.00%, p_loss: 0.00001/100.00%,
total weighted loss: 5.85656
Part 4 - fp_loss: 1.16389/66.00%, bp_loss: 1.96812/51.00%, h
p_loss: 2.24856/44.00%, j_loss: 1.36298/61.00%,
fr_loss: 0.21757/78.00%, p_loss: 0.00003/100.00%,
total weighted loss: 6.96115
`Validation time elapsed: 0.74 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.75527/52.00%, bp_loss: 1.66667/56.00%, h
p_loss: 3.04146/28.00%, j_loss: 1.59464/58.00%,
fr_loss: 0.27020/72.00%, p_loss: 0.00001/100.00%,
total weighted loss: 8.32825
Part 2 - fp_loss: 1.70533/55.00%, bp_loss: 1.88647/55.00%, h
p_loss: 2.57002/41.00%, j_loss: 1.72924/55.00%,
fr_loss: 0.33590/67.00%, p_loss: 0.00001/100.00%,
total weighted loss: 8.22697
Part 3 - fp_loss: 1.12171/69.00%, bp_loss: 1.25837/70.00%, h
p_loss: 1.90949/52.00%, j_loss: 0.82903/75.00%,
fr_loss: 0.19935/80.00%, p_loss: 0.00001/100.00%,
total weighted loss: 5.31795
Part 4 - fp_loss: 1.09492/68.00%, bp_loss: 1.55533/63.00%, h
p_loss: 2.14836/47.00%, j_loss: 0.94744/71.00%,
fr_loss: 0.21295/78.00%, p_loss: 0.00003/100.00%,

total weighted loss: 5.95904
`Validation time elapsed: 9.52 seconds
`

Completed epoch 6.

EPOCH 7

Train iter 0/802:

Part 1 - fp_loss: 1.41097/59.00%, bp_loss: 1.54405/59.00%, h
p_loss: 3.07698/21.00%, j_loss: 1.33418/65.00%,
fr_loss: 0.16837/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.59434

Part 2 - fp_loss: 1.96750/50.00%, bp_loss: 1.93549/48.00%, h
p_loss: 2.73934/29.00%, j_loss: 1.83658/50.00%,
fr_loss: 0.29436/70.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.51714

Part 3 - fp_loss: 1.11194/69.00%, bp_loss: 1.38061/65.00%, h
p_loss: 2.41034/36.00%, j_loss: 0.93834/71.00%,
fr_loss: 0.14775/85.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.77935

Part 4 - fp_loss: 1.15486/67.00%, bp_loss: 1.59165/58.00%, h
p_loss: 2.56416/33.00%, j_loss: 1.06002/71.00%,
fr_loss: 0.15497/84.00%, p_loss: 0.00003/100.00%,
total weighted loss: 3.03916

Training time elapsed: 1.06 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.34388/59.00%, bp_loss: 1.46087/60.00%, h
p_loss: 3.07882/20.00%, j_loss: 1.10572/73.00%,
fr_loss: 0.15881/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.29838

Part 2 - fp_loss: 1.91613/50.00%, bp_loss: 1.46071/64.00%, h
p_loss: 2.71019/31.00%, j_loss: 1.39507/65.00%,
fr_loss: 0.29707/71.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.90148

Part 3 - fp_loss: 1.11529/69.00%, bp_loss: 1.00296/74.00%, h
p_loss: 2.41864/36.00%, j_loss: 0.71578/80.00%,
fr_loss: 0.15061/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.45051

Part 4 - fp_loss: 1.13818/68.00%, bp_loss: 1.26552/68.00%, h
p_loss: 2.61660/32.00%, j_loss: 0.79570/78.00%,
fr_loss: 0.14519/85.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.67462

Training time elapsed: 38.47 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.35279/59.00%, bp_loss: 2.52432/47.00%, h
p_loss: 3.09261/21.00%, j_loss: 1.49729/59.00%,
fr_loss: 0.16590/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.02467

Part 2 - fp_loss: 1.88315/52.00%, bp_loss: 1.45390/64.00%, h
p_loss: 2.76828/31.00%, j_loss: 1.34441/64.00%,

```
fr_loss: 0.30048/70.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.85312
Part 3 - fp_loss: 1.15929/69.00%, bp_loss: 0.99666/75.00%, h
p_loss: 2.46472/36.00%, j_loss: 0.78115/78.00%,
fr_loss: 0.14167/86.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.54088
Part 4 - fp_loss: 1.09297/70.00%, bp_loss: 1.14172/71.00%, h
p_loss: 2.69084/30.00%, j_loss: 0.71601/81.00%,
fr_loss: 0.13316/87.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.54542
Training time elapsed: 75.85 seconds
```

Train iter 300/802:

```
Part 1 - fp_loss: 1.26854/61.00%, bp_loss: 1.74579/57.00%, h
p_loss: 3.09309/21.00%, j_loss: 1.20076/68.00%,
fr_loss: 0.20255/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.48924
Part 2 - fp_loss: 1.84193/51.00%, bp_loss: 1.44011/64.00%, h
p_loss: 2.71153/31.00%, j_loss: 1.33760/64.00%,
fr_loss: 0.26353/73.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.76759
Part 3 - fp_loss: 1.13977/68.00%, bp_loss: 0.91154/77.00%, h
p_loss: 2.43114/36.00%, j_loss: 0.71376/79.00%,
fr_loss: 0.13201/87.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.41845
Part 4 - fp_loss: 1.11155/68.00%, bp_loss: 1.26494/68.00%, h
p_loss: 2.61466/31.00%, j_loss: 0.76753/78.00%,
fr_loss: 0.13259/86.00%, p_loss: 0.00004/100.00%,
total weighted loss: 2.61978
Training time elapsed: 113.22 seconds
```

Train iter 400/802:

```
Part 1 - fp_loss: 1.39704/59.00%, bp_loss: 1.85975/56.00%, h
p_loss: 3.09611/21.00%, j_loss: 1.34181/65.00%,
fr_loss: 0.17209/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.69918
Part 2 - fp_loss: 1.81984/52.00%, bp_loss: 1.33873/65.00%, h
p_loss: 2.68473/32.00%, j_loss: 1.33056/65.00%,
fr_loss: 0.28060/72.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.72812
Part 3 - fp_loss: 1.14588/69.00%, bp_loss: 1.05986/73.00%, h
p_loss: 2.44833/35.00%, j_loss: 0.75678/76.00%,
fr_loss: 0.16335/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.54552
Part 4 - fp_loss: 1.16989/67.00%, bp_loss: 1.20773/69.00%, h
p_loss: 2.67309/31.00%, j_loss: 0.75462/78.00%,
fr_loss: 0.16780/83.00%, p_loss: 0.00004/100.00%,
total weighted loss: 2.67161
Training time elapsed: 150.58 seconds
```

Train iter 500/802:

```
Part 1 - fp_loss: 1.38249/60.00%, bp_loss: 1.75339/57.00%, h
p_loss: 3.07121/22.00%, j_loss: 1.28966/68.00%,
```

fr_loss: 0.17573/82.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.60402
Part 2 - fp_loss: 1.97001/50.00%, bp_loss: 1.44482/62.00%, h
p_loss: 2.75734/30.00%, j_loss: 1.52265/62.00%,
fr_loss: 0.28274/71.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.05105
Part 3 - fp_loss: 1.23494/66.00%, bp_loss: 0.98282/75.00%, h
p_loss: 2.42590/37.00%, j_loss: 0.74311/78.00%,
fr_loss: 0.14880/85.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.53200
Part 4 - fp_loss: 1.14725/68.00%, bp_loss: 0.97591/75.00%, h
p_loss: 2.59646/33.00%, j_loss: 0.68760/80.00%,
fr_loss: 0.13253/87.00%, p_loss: 0.00004/100.00%,
total weighted loss: 2.46547
Training time elapsed: 187.97 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.46741/56.00%, bp_loss: 1.69687/57.00%, h
p_loss: 3.12110/20.00%, j_loss: 1.35849/66.00%,
fr_loss: 0.16652/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.70411
Part 2 - fp_loss: 1.94916/50.00%, bp_loss: 1.41328/64.00%, h
p_loss: 2.70804/30.00%, j_loss: 1.38550/63.00%,
fr_loss: 0.29934/69.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.89582
Part 3 - fp_loss: 1.19983/65.00%, bp_loss: 1.02333/75.00%, h
p_loss: 2.34572/39.00%, j_loss: 0.80840/75.00%,
fr_loss: 0.16134/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.58037
Part 4 - fp_loss: 1.19706/69.00%, bp_loss: 1.06899/71.00%, h
p_loss: 2.65556/32.00%, j_loss: 0.69645/80.00%,
fr_loss: 0.16688/83.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.57922
Training time elapsed: 225.37 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.28354/62.00%, bp_loss: 1.69570/57.00%, h
p_loss: 3.05793/23.00%, j_loss: 1.25028/68.00%,
fr_loss: 0.16580/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.48394
Part 2 - fp_loss: 1.81128/52.00%, bp_loss: 1.47999/62.00%, h
p_loss: 2.67327/32.00%, j_loss: 1.35514/63.00%,
fr_loss: 0.27142/72.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.77817
Part 3 - fp_loss: 1.12966/69.00%, bp_loss: 0.93274/76.00%, h
p_loss: 2.37435/37.00%, j_loss: 0.74049/79.00%,
fr_loss: 0.14224/85.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.43969
Part 4 - fp_loss: 1.10289/68.00%, bp_loss: 1.05586/72.00%, h
p_loss: 2.55085/35.00%, j_loss: 0.74333/79.00%,
fr_loss: 0.14413/85.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.52092
Training time elapsed: 262.73 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.35913/60.00%, bp_loss: 1.67828/57.00%, h
p_loss: 3.07780/21.00%, j_loss: 1.21701/70.00%,
fr_loss: 0.17072/83.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.49412
Part 2 - fp_loss: 2.01295/48.00%, bp_loss: 1.45805/63.00%, h
p_loss: 2.80384/28.00%, j_loss: 1.41412/64.00%,
fr_loss: 0.30421/69.00%, p_loss: 0.00001/100.00%,
total weighted loss: 4.00337
Part 3 - fp_loss: 1.18764/68.00%, bp_loss: 0.93428/75.00%, h
p_loss: 2.34926/38.00%, j_loss: 0.69983/81.00%,
fr_loss: 0.14591/85.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.42462
Part 4 - fp_loss: 1.22770/67.00%, bp_loss: 0.99701/73.00%, h
p_loss: 2.63324/32.00%, j_loss: 0.71523/80.00%,
fr_loss: 0.14699/85.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.56514
Training time elapsed: 300.11 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.87143/47.00%, bp_loss: 1.96724/49.00%, h
p_loss: 3.09714/24.00%, j_loss: 1.84091/55.00%,
fr_loss: 0.26309/73.00%, p_loss: 0.00001/100.00%,
total weighted loss: 9.03982
Part 2 - fp_loss: 1.82594/52.00%, bp_loss: 2.20396/45.00%, h
p_loss: 2.51237/43.00%, j_loss: 1.95736/45.00%,
fr_loss: 0.33090/67.00%, p_loss: 0.00001/100.00%,
total weighted loss: 8.83053
Part 3 - fp_loss: 1.08793/69.00%, bp_loss: 1.36108/67.00%, h
p_loss: 1.97380/52.00%, j_loss: 1.01490/73.00%,
fr_loss: 0.18468/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 5.62241
Part 4 - fp_loss: 1.22950/66.00%, bp_loss: 1.61550/62.00%, h
p_loss: 2.19956/47.00%, j_loss: 1.19965/64.00%,
fr_loss: 0.23214/77.00%, p_loss: 0.00001/100.00%,
total weighted loss: 6.47637
Validation time elapsed: 0.72 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.74372/51.00%, bp_loss: 1.97906/49.00%, h
p_loss: 3.09641/24.00%, j_loss: 1.74320/56.00%,
fr_loss: 0.23923/76.00%, p_loss: 0.00001/100.00%,
total weighted loss: 8.80162
Part 2 - fp_loss: 1.76074/53.00%, bp_loss: 1.54227/62.00%, h
p_loss: 2.65034/40.00%, j_loss: 1.44169/63.00%,
fr_loss: 0.33225/67.00%, p_loss: 0.00001/100.00%,
total weighted loss: 7.72731
Part 3 - fp_loss: 1.22656/66.00%, bp_loss: 1.29968/68.00%, h
p_loss: 2.08964/46.00%, j_loss: 0.92138/75.00%,
fr_loss: 0.21595/78.00%, p_loss: 0.00001/100.00%,
total weighted loss: 5.75321
Part 4 - fp_loss: 1.18933/68.00%, bp_loss: 1.45442/64.00%, h

```
p_loss: 2.32085/42.00%, j_loss: 0.87643/75.00%,  
      fr_loss: 0.20199/80.00%, p_loss: 0.00001/100.00%,  
      total weighted loss: 6.04303  
`Validation time elapsed: 9.49 seconds  
`
```

```
-----  
Completed epoch 7.
```

```
EPOCH 8  
-----
```

```
Train iter 0/802:
```

```
      Part 1 - fp_loss: 1.32890/61.00%, bp_loss: 1.67517/57.00%, h  
p_loss: 3.01113/23.00%, j_loss: 1.25378/68.00%,  
      fr_loss: 0.18366/81.00%, p_loss: 0.00001/100.00%,  
      total weighted loss: 3.50778  
      Part 2 - fp_loss: 1.95308/50.00%, bp_loss: 1.72633/56.00%, h  
p_loss: 2.74612/32.00%, j_loss: 1.57337/56.00%,  
      fr_loss: 0.30773/69.00%, p_loss: 0.00001/100.00%,  
      total weighted loss: 4.19937  
      Part 3 - fp_loss: 1.17670/67.00%, bp_loss: 1.30301/68.00%, h  
p_loss: 2.41111/35.00%, j_loss: 0.96455/75.00%,  
      fr_loss: 0.14144/85.00%, p_loss: 0.00001/100.00%,  
      total weighted loss: 2.80858  
      Part 4 - fp_loss: 1.05485/70.00%, bp_loss: 1.30935/69.00%, h  
p_loss: 2.60048/33.00%, j_loss: 0.87893/75.00%,  
      fr_loss: 0.14025/86.00%, p_loss: 0.00002/100.00%,  
      total weighted loss: 2.71955  
      Training time elapsed: 1.00 seconds
```

```
Train iter 100/802:
```

```
      Part 1 - fp_loss: 1.37058/59.00%, bp_loss: 1.68522/58.00%, h  
p_loss: 3.11772/21.00%, j_loss: 1.22166/69.00%,  
      fr_loss: 0.16922/83.00%, p_loss: 0.00001/100.00%,  
      total weighted loss: 3.51705  
      Part 2 - fp_loss: 1.93231/50.00%, bp_loss: 1.45084/65.00%, h  
p_loss: 2.79056/29.00%, j_loss: 1.36632/66.00%,  
      fr_loss: 0.28769/71.00%, p_loss: 0.00001/100.00%,  
      total weighted loss: 3.89258  
      Part 3 - fp_loss: 1.08510/69.00%, bp_loss: 1.00056/74.00%, h  
p_loss: 2.35442/38.00%, j_loss: 0.72814/79.00%,  
      fr_loss: 0.13974/86.00%, p_loss: 0.00001/100.00%,  
      total weighted loss: 2.41692  
      Part 4 - fp_loss: 1.02184/71.00%, bp_loss: 1.10944/70.00%, h  
p_loss: 2.55950/33.00%, j_loss: 0.69577/81.00%,  
      fr_loss: 0.13092/87.00%, p_loss: 0.00002/100.00%,  
      total weighted loss: 2.43829  
      Training time elapsed: 38.42 seconds
```

```
Train iter 200/802:
```

```
      Part 1 - fp_loss: 1.36853/59.00%, bp_loss: 1.69184/55.00%, h  
p_loss: 3.07739/21.00%, j_loss: 1.31846/66.00%,  
      fr_loss: 0.15945/84.00%, p_loss: 0.00000/100.00%,  
      total weighted loss: 3.59294
```

Part 2 - fp_loss: 1.91781/51.00%, bp_loss: 1.43500/63.00%, h
p_loss: 2.78009/28.00%, j_loss: 1.38663/65.00%,
fr_loss: 0.28841/71.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.89848
Part 3 - fp_loss: 1.18523/67.00%, bp_loss: 1.01846/74.00%, h
p_loss: 2.44205/35.00%, j_loss: 0.75896/77.00%,
fr_loss: 0.15998/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.54971
Part 4 - fp_loss: 1.24873/64.00%, bp_loss: 1.07346/72.00%, h
p_loss: 2.69468/29.00%, j_loss: 0.77105/79.00%,
fr_loss: 0.14829/85.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.67415
Training time elapsed: 75.86 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.40333/61.00%, bp_loss: 1.51204/60.00%, h
p_loss: 3.07838/21.00%, j_loss: 1.15744/69.00%,
fr_loss: 0.16222/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.39845
Part 2 - fp_loss: 1.74517/55.00%, bp_loss: 1.36279/65.00%, h
p_loss: 2.77154/29.00%, j_loss: 1.22176/67.00%,
fr_loss: 0.26034/74.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.59498
Part 3 - fp_loss: 1.16356/67.00%, bp_loss: 0.99663/75.00%, h
p_loss: 2.40407/36.00%, j_loss: 0.76258/77.00%,
fr_loss: 0.13500/86.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.49958
Part 4 - fp_loss: 1.23963/64.00%, bp_loss: 0.98432/73.00%, h
p_loss: 2.56910/32.00%, j_loss: 0.73138/78.00%,
fr_loss: 0.14488/85.00%, p_loss: 0.00003/100.00%,
total weighted loss: 2.56210
Training time elapsed: 113.27 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.32098/61.00%, bp_loss: 1.69754/56.00%, h
p_loss: 3.05291/23.00%, j_loss: 1.25156/67.00%,
fr_loss: 0.18345/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.52063
Part 2 - fp_loss: 1.75572/53.00%, bp_loss: 1.33318/66.00%, h
p_loss: 2.73988/31.00%, j_loss: 1.25864/67.00%,
fr_loss: 0.26464/74.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.62306
Part 3 - fp_loss: 1.14619/68.00%, bp_loss: 0.95134/76.00%, h
p_loss: 2.44323/36.00%, j_loss: 0.71686/80.00%,
fr_loss: 0.16636/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.47469
Part 4 - fp_loss: 1.20286/67.00%, bp_loss: 1.23383/68.00%, h
p_loss: 2.59620/33.00%, j_loss: 0.90087/77.00%,
fr_loss: 0.14722/85.00%, p_loss: 0.00002/100.00%,
total weighted loss: 2.79854
Training time elapsed: 150.67 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.37634/61.00%, bp_loss: 1.68404/57.00%, h
p_loss: 3.09687/23.00%, j_loss: 1.22148/67.00%,
fr_loss: 0.17232/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.51624
Part 2 - fp_loss: 1.83075/53.00%, bp_loss: 1.45285/63.00%, h
p_loss: 2.76218/29.00%, j_loss: 1.34376/64.00%,
fr_loss: 0.26469/74.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.78833
Part 3 - fp_loss: 1.15292/68.00%, bp_loss: 1.13305/70.00%, h
p_loss: 2.36474/37.00%, j_loss: 0.76337/77.00%,
fr_loss: 0.13847/86.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.52764
Part 4 - fp_loss: 1.29440/64.00%, bp_loss: 0.99856/74.00%, h
p_loss: 2.54037/34.00%, j_loss: 0.79906/78.00%,
fr_loss: 0.15619/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.66413
Training time elapsed: 188.09 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.41621/58.00%, bp_loss: 1.64198/55.00%, h
p_loss: 3.06475/23.00%, j_loss: 1.28445/68.00%,
fr_loss: 0.15694/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.56152
Part 2 - fp_loss: 1.73694/55.00%, bp_loss: 1.40272/65.00%, h
p_loss: 2.79216/30.00%, j_loss: 1.23033/68.00%,
fr_loss: 0.22820/77.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.58546
Part 3 - fp_loss: 1.09511/69.00%, bp_loss: 1.09101/73.00%, h
p_loss: 2.38536/38.00%, j_loss: 0.70524/80.00%,
fr_loss: 0.14927/85.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.44497
Part 4 - fp_loss: 1.30272/63.00%, bp_loss: 1.11827/70.00%, h
p_loss: 2.63279/31.00%, j_loss: 0.80763/77.00%,
fr_loss: 0.15844/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.74275
Training time elapsed: 225.46 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.37225/59.00%, bp_loss: 1.81902/54.00%, h
p_loss: 3.09714/21.00%, j_loss: 1.37274/63.00%,
fr_loss: 0.17589/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.70960
Part 2 - fp_loss: 1.80452/52.00%, bp_loss: 1.39707/65.00%, h
p_loss: 2.74314/29.00%, j_loss: 1.26074/67.00%,
fr_loss: 0.24101/76.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.64607
Part 3 - fp_loss: 1.26559/66.00%, bp_loss: 0.90313/77.00%, h
p_loss: 2.43370/34.00%, j_loss: 0.66720/81.00%,
fr_loss: 0.15571/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.45675
Part 4 - fp_loss: 1.34170/63.00%, bp_loss: 1.03135/72.00%, h
p_loss: 2.54913/33.00%, j_loss: 0.79812/79.00%,
fr_loss: 0.17901/82.00%, p_loss: 0.00002/100.00%,

total weighted loss: 2.72212
Training time elapsed: 262.87 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.39281/60.00%, bp_loss: 1.87577/56.00%, h
p_loss: 3.15277/21.00%, j_loss: 1.29330/67.00%,
fr_loss: 0.17855/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.67682
Part 2 - fp_loss: 1.73254/55.00%, bp_loss: 1.35742/66.00%, h
p_loss: 2.75856/30.00%, j_loss: 1.21410/68.00%,
fr_loss: 0.25796/74.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.57313
Part 3 - fp_loss: 1.19737/68.00%, bp_loss: 1.35516/68.00%, h
p_loss: 2.55143/34.00%, j_loss: 0.87874/74.00%,
fr_loss: 0.15454/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.80394
Part 4 - fp_loss: 1.23941/67.00%, bp_loss: 1.07718/72.00%, h
p_loss: 2.63831/31.00%, j_loss: 0.74553/81.00%,
fr_loss: 0.14266/86.00%, p_loss: 0.00003/100.00%,
total weighted loss: 2.62255

Training time elapsed: 300.27 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.69742/52.00%, bp_loss: 1.86295/51.00%, h
p_loss: 3.09693/24.00%, j_loss: 1.71572/54.00%,
fr_loss: 0.24262/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.61564
Part 2 - fp_loss: 1.57991/58.00%, bp_loss: 1.71831/56.00%, h
p_loss: 2.57165/42.00%, j_loss: 1.50314/60.00%,
fr_loss: 0.29016/71.00%, p_loss: 0.00001/100.00%,
total weighted loss: 7.66317
Part 3 - fp_loss: 1.13928/70.00%, bp_loss: 1.40975/63.00%, h
p_loss: 1.99235/50.00%, j_loss: 1.07898/68.00%,
fr_loss: 0.19430/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.81467
Part 4 - fp_loss: 1.25740/67.00%, bp_loss: 2.06877/55.00%, h
p_loss: 2.19839/44.00%, j_loss: 1.38245/60.00%,
fr_loss: 0.22632/77.00%, p_loss: 0.00001/100.00%,
total weighted loss: 7.13334

`Validation time elapsed: 0.74 seconds

Valid iter 100/160:

Part 1 - fp_loss: 1.69339/50.00%, bp_loss: 2.18469/48.00%, h
p_loss: 3.07186/26.00%, j_loss: 1.77904/54.00%,
fr_loss: 0.23520/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.96418
Part 2 - fp_loss: 1.55922/57.00%, bp_loss: 1.49492/62.00%, h
p_loss: 2.52250/43.00%, j_loss: 1.33667/67.00%,
fr_loss: 0.26600/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.17931
Part 3 - fp_loss: 1.06743/71.00%, bp_loss: 1.53080/63.00%, h
p_loss: 1.95297/50.00%, j_loss: 0.99106/69.00%,
fr_loss: 0.18724/81.00%, p_loss: 0.00000/100.00%,

```
total weighted loss: 5.72949
Part 4 - fp_loss: 1.18475/68.00%, bp_loss: 1.33386/70.00%, h
p_loss: 2.20914/44.00%, j_loss: 0.73428/83.00%,
fr_loss: 0.20248/79.00%, p_loss: 0.00002/100.00%,
total weighted loss: 5.66453
`Validation time elapsed: 9.52 seconds
`
```

```
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Completed epoch 8.
```

EPOCH 9

```
-----
Train iter 0/802:
Part 1 - fp_loss: 1.32688/61.00%, bp_loss: 1.65033/59.00%, h
p_loss: 3.06823/21.00%, j_loss: 1.27337/66.00%,
fr_loss: 0.15067/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.50305
Part 2 - fp_loss: 1.69856/56.00%, bp_loss: 1.57980/59.00%, h
p_loss: 2.78220/29.00%, j_loss: 1.42053/62.00%,
fr_loss: 0.24990/75.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.82832
Part 3 - fp_loss: 1.02231/72.00%, bp_loss: 1.13529/72.00%, h
p_loss: 2.44066/36.00%, j_loss: 0.81237/77.00%,
fr_loss: 0.14916/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.54547
Part 4 - fp_loss: 1.24934/65.00%, bp_loss: 1.56910/65.00%, h
p_loss: 2.66388/32.00%, j_loss: 1.03537/70.00%,
fr_loss: 0.15588/84.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.08581
Training time elapsed: 1.07 seconds
```

```
Train iter 100/802:
Part 1 - fp_loss: 1.31746/59.00%, bp_loss: 1.73086/56.00%, h
p_loss: 3.06047/24.00%, j_loss: 1.36543/66.00%,
fr_loss: 0.17863/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.64018
Part 2 - fp_loss: 1.71312/55.00%, bp_loss: 1.26032/68.00%, h
p_loss: 2.71275/31.00%, j_loss: 1.21194/68.00%,
fr_loss: 0.25940/74.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.51982
Part 3 - fp_loss: 1.13394/68.00%, bp_loss: 1.09912/71.00%, h
p_loss: 2.39963/38.00%, j_loss: 0.81851/75.00%,
fr_loss: 0.13868/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.57379
Part 4 - fp_loss: 1.40847/62.00%, bp_loss: 1.11512/71.00%, h
p_loss: 2.64392/32.00%, j_loss: 0.90846/77.00%,
fr_loss: 0.16151/84.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.90192
Training time elapsed: 38.31 seconds
```

```
Train iter 200/802:
Part 1 - fp_loss: 1.40274/59.00%, bp_loss: 1.66751/56.00%, h
p_loss: 3.07828/21.00%, j_loss: 1.26174/68.00%,
```

fr_loss: 0.16091/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.54776
Part 2 - fp_loss: 1.80415/52.00%, bp_loss: 1.38459/66.00%, h
p_loss: 2.72444/30.00%, j_loss: 1.27279/66.00%,
fr_loss: 0.23494/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.64251
Part 3 - fp_loss: 1.11905/70.00%, bp_loss: 1.20931/72.00%, h
p_loss: 2.36964/37.00%, j_loss: 0.76129/80.00%,
fr_loss: 0.13697/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.53148
Part 4 - fp_loss: 2.19330/50.00%, bp_loss: 1.10665/72.00%, h
p_loss: 2.62059/32.00%, j_loss: 1.09766/73.00%,
fr_loss: 0.35565/64.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.66812
Training time elapsed: 75.52 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.41930/59.00%, bp_loss: 1.54189/60.00%, h
p_loss: 3.10863/21.00%, j_loss: 1.20967/70.00%,
fr_loss: 0.17168/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.48615
Part 2 - fp_loss: 1.73351/54.00%, bp_loss: 1.38859/65.00%, h
p_loss: 2.70037/31.00%, j_loss: 1.23909/69.00%,
fr_loss: 0.24402/75.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.57655
Part 3 - fp_loss: 1.13783/68.00%, bp_loss: 1.11500/73.00%, h
p_loss: 2.42218/38.00%, j_loss: 0.73307/79.00%,
fr_loss: 0.13034/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.49347
Part 4 - fp_loss: 2.14920/51.00%, bp_loss: 0.94021/74.00%, h
p_loss: 2.63724/32.00%, j_loss: 0.96496/76.00%,
fr_loss: 0.30871/69.00%, p_loss: 0.00002/100.00%,
total weighted loss: 3.42151
Training time elapsed: 112.75 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.29772/60.00%, bp_loss: 1.57289/57.00%, h
p_loss: 3.06359/23.00%, j_loss: 1.27124/67.00%,
fr_loss: 0.16470/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.47574
Part 2 - fp_loss: 1.68945/56.00%, bp_loss: 1.27875/67.00%, h
p_loss: 2.73833/31.00%, j_loss: 1.18194/70.00%,
fr_loss: 0.25115/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.48294
Part 3 - fp_loss: 1.12321/69.00%, bp_loss: 1.00669/75.00%, h
p_loss: 2.30622/39.00%, j_loss: 0.73352/79.00%,
fr_loss: 0.16099/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.44999
Part 4 - fp_loss: 2.03649/55.00%, bp_loss: 1.02625/73.00%, h
p_loss: 2.54821/34.00%, j_loss: 0.95351/77.00%,
fr_loss: 0.32015/68.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.36424
Training time elapsed: 149.94 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.35311/61.00%, bp_loss: 1.55971/58.00%, h
p_loss: 3.04231/21.00%, j_loss: 1.20249/71.00%,
fr_loss: 0.14691/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.40656
Part 2 - fp_loss: 1.60565/59.00%, bp_loss: 1.20074/69.00%, h
p_loss: 2.79802/29.00%, j_loss: 1.05469/71.00%,
fr_loss: 0.24122/75.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.29837
Part 3 - fp_loss: 1.21035/68.00%, bp_loss: 1.07493/73.00%, h
p_loss: 2.46765/35.00%, j_loss: 0.78116/82.00%,
fr_loss: 0.14777/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.59688
Part 4 - fp_loss: 1.92789/56.00%, bp_loss: 0.99344/74.00%, h
p_loss: 2.59833/33.00%, j_loss: 0.89213/76.00%,
fr_loss: 0.28730/71.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.22091
Training time elapsed: 187.10 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.36451/58.00%, bp_loss: 1.53347/58.00%, h
p_loss: 3.04894/21.00%, j_loss: 1.23947/68.00%,
fr_loss: 0.15589/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.45234
Part 2 - fp_loss: 1.73641/55.00%, bp_loss: 1.20209/70.00%, h
p_loss: 2.70260/32.00%, j_loss: 1.13044/71.00%,
fr_loss: 0.25270/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.42276
Part 3 - fp_loss: 1.03496/71.00%, bp_loss: 1.02403/76.00%, h
p_loss: 2.36390/40.00%, j_loss: 0.64063/81.00%,
fr_loss: 0.10982/89.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.28431
Part 4 - fp_loss: 2.33412/47.00%, bp_loss: 1.13802/72.00%, h
p_loss: 2.59455/34.00%, j_loss: 1.08877/75.00%,
fr_loss: 0.39482/62.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.77041
Training time elapsed: 224.34 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.40543/58.00%, bp_loss: 1.41135/62.00%, h
p_loss: 3.11750/22.00%, j_loss: 1.09534/75.00%,
fr_loss: 0.17599/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.33269
Part 2 - fp_loss: 1.64831/57.00%, bp_loss: 1.29856/68.00%, h
p_loss: 2.73953/31.00%, j_loss: 1.13638/69.00%,
fr_loss: 0.24563/75.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.41759
Part 3 - fp_loss: 1.18382/68.00%, bp_loss: 1.08498/75.00%, h
p_loss: 2.50516/34.00%, j_loss: 0.68308/80.00%,
fr_loss: 0.15563/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.50767
Part 4 - fp_loss: 1.96908/56.00%, bp_loss: 1.21877/69.00%, h

p_loss: 2.60675/32.00%, j_loss: 1.06907/73.00%,
fr_loss: 0.32103/68.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.52230
Training time elapsed: 261.57 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.43660/58.00%, bp_loss: 1.53805/59.00%, h
p_loss: 3.11154/20.00%, j_loss: 1.20051/70.00%,
fr_loss: 0.17398/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.48767
Part 2 - fp_loss: 1.71421/54.00%, bp_loss: 1.62990/59.00%, h
p_loss: 2.76896/30.00%, j_loss: 1.39682/62.00%,
fr_loss: 0.24745/75.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.82104
Part 3 - fp_loss: 1.12159/70.00%, bp_loss: 0.95776/76.00%, h
p_loss: 2.40346/39.00%, j_loss: 0.72832/80.00%,
fr_loss: 0.13877/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.43625
Part 4 - fp_loss: 1.85792/59.00%, bp_loss: 1.02535/72.00%, h
p_loss: 2.58126/34.00%, j_loss: 0.86790/79.00%,
fr_loss: 0.28936/71.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.16820
Training time elapsed: 298.74 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.77068/52.00%, bp_loss: 1.70595/54.00%, h
p_loss: 3.08336/27.00%, j_loss: 1.60020/61.00%,
fr_loss: 0.26257/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.42275
Part 2 - fp_loss: 1.51073/60.00%, bp_loss: 2.23211/42.00%, h
p_loss: 2.61263/39.00%, j_loss: 1.52724/59.00%,
fr_loss: 0.25368/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.13640
Part 3 - fp_loss: 1.05907/71.00%, bp_loss: 1.12965/71.00%, h
p_loss: 2.01392/50.00%, j_loss: 0.88215/75.00%,
fr_loss: 0.18296/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.26776
Part 4 - fp_loss: 1.72438/59.00%, bp_loss: 1.60022/60.00%, h
p_loss: 2.21591/42.00%, j_loss: 1.37045/63.00%,
fr_loss: 0.31809/68.00%, p_loss: 0.00001/100.00%,
total weighted loss: 7.22906
Validation time elapsed: 0.75 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.74024/51.00%, bp_loss: 1.90168/53.00%, h
p_loss: 3.07127/26.00%, j_loss: 1.69712/58.00%,
fr_loss: 0.24667/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.65699
Part 2 - fp_loss: 1.59703/58.00%, bp_loss: 2.25765/48.00%, h
p_loss: 2.65515/39.00%, j_loss: 1.58059/59.00%,
fr_loss: 0.27127/72.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.36168
Part 3 - fp_loss: 1.12210/69.00%, bp_loss: 1.40119/68.00%, h

p_loss: 1.99356/50.00%, j_loss: 0.85090/76.00%,
fr_loss: 0.20582/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.57359
Part 4 - fp_loss: 1.75100/58.00%, bp_loss: 1.38571/64.00%, h
p_loss: 2.24700/42.00%, j_loss: 1.08746/71.00%,
fr_loss: 0.34970/65.00%, p_loss: 0.00001/100.00%,
total weighted loss: 6.82089
`Validation time elapsed: 9.54 seconds
`

Completed epoch 9.

EPOCH 10

Train iter 0/802:

Part 1 - fp_loss: 1.37836/58.00%, bp_loss: 1.39153/61.00%, h
p_loss: 3.03955/23.00%, j_loss: 1.15005/73.00%,
fr_loss: 0.15878/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.32733
Part 2 - fp_loss: 1.57327/59.00%, bp_loss: 1.85755/52.00%, h
p_loss: 2.64827/34.00%, j_loss: 1.36632/63.00%,
fr_loss: 0.24852/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.75322
Part 3 - fp_loss: 1.04448/72.00%, bp_loss: 0.96882/73.00%, h
p_loss: 2.40473/38.00%, j_loss: 0.76801/79.00%,
fr_loss: 0.13049/87.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.43280
Part 4 - fp_loss: 1.92677/56.00%, bp_loss: 1.33697/65.00%, h
p_loss: 2.56626/34.00%, j_loss: 1.20448/71.00%,
fr_loss: 0.29102/71.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.62986
Training time elapsed: 1.04 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.31914/62.00%, bp_loss: 1.45245/60.00%, h
p_loss: 3.02954/23.00%, j_loss: 1.12537/74.00%,
fr_loss: 0.15929/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.28883
Part 2 - fp_loss: 1.60085/57.00%, bp_loss: 1.17908/71.00%, h
p_loss: 2.67537/33.00%, j_loss: 1.10122/71.00%,
fr_loss: 0.27800/72.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.33599
Part 3 - fp_loss: 1.10826/70.00%, bp_loss: 0.96614/75.00%, h
p_loss: 2.46613/36.00%, j_loss: 0.69436/78.00%,
fr_loss: 0.15786/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.43604
Part 4 - fp_loss: 1.88804/59.00%, bp_loss: 1.28007/68.00%, h
p_loss: 2.62220/33.00%, j_loss: 0.99520/76.00%,
fr_loss: 0.28282/71.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.39273
Training time elapsed: 37.51 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.32073/60.00%, bp_loss: 1.46565/59.00%, h
p_loss: 3.12169/20.00%, j_loss: 1.20658/70.00%,
fr_loss: 0.14950/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.39264
Part 2 - fp_loss: 1.67189/55.00%, bp_loss: 1.33743/67.00%, h
p_loss: 2.75715/28.00%, j_loss: 1.21069/70.00%,
fr_loss: 0.25008/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.52509
Part 3 - fp_loss: 1.24956/66.00%, bp_loss: 0.99220/75.00%, h
p_loss: 2.45821/36.00%, j_loss: 0.73050/80.00%,
fr_loss: 0.16592/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.55632
Part 4 - fp_loss: 1.81398/58.00%, bp_loss: 0.99970/74.00%, h
p_loss: 2.60296/32.00%, j_loss: 0.88290/77.00%,
fr_loss: 0.24854/75.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.11923
Training time elapsed: 73.96 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.36241/61.00%, bp_loss: 1.36826/60.00%, h
p_loss: 3.08935/21.00%, j_loss: 1.14091/72.00%,
fr_loss: 0.17184/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.33124
Part 2 - fp_loss: 1.65638/56.00%, bp_loss: 1.27246/67.00%, h
p_loss: 2.79032/28.00%, j_loss: 1.16608/71.00%,
fr_loss: 0.21902/78.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.43212
Part 3 - fp_loss: 1.17360/67.00%, bp_loss: 1.21800/74.00%, h
p_loss: 2.55220/33.00%, j_loss: 0.72942/78.00%,
fr_loss: 0.13862/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.58591
Part 4 - fp_loss: 1.82668/57.00%, bp_loss: 1.06134/74.00%, h
p_loss: 2.67218/32.00%, j_loss: 0.79310/79.00%,
fr_loss: 0.23920/76.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.06570
Training time elapsed: 110.39 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.37332/61.00%, bp_loss: 2.27001/46.00%, h
p_loss: 3.06510/22.00%, j_loss: 1.48453/63.00%,
fr_loss: 0.14898/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.92071
Part 2 - fp_loss: 1.59916/57.00%, bp_loss: 1.27750/68.00%, h
p_loss: 2.71373/29.00%, j_loss: 1.10334/72.00%,
fr_loss: 0.22110/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.32139
Part 3 - fp_loss: 1.18236/68.00%, bp_loss: 0.98614/76.00%, h
p_loss: 2.40991/37.00%, j_loss: 0.66362/80.00%,
fr_loss: 0.15691/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.43052
Part 4 - fp_loss: 1.75771/58.00%, bp_loss: 1.03259/71.00%, h
p_loss: 2.65061/31.00%, j_loss: 0.84960/77.00%,
fr_loss: 0.22620/78.00%, p_loss: 0.00001/100.00%,

total weighted loss: 3.05961
Training time elapsed: 146.85 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.46408/59.00%, bp_loss: 2.08521/50.00%, h
p_loss: 3.07947/21.00%, j_loss: 1.39715/64.00%,
fr_loss: 0.16914/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.84774
Part 2 - fp_loss: 1.68916/56.00%, bp_loss: 1.28349/66.00%, h
p_loss: 2.80163/29.00%, j_loss: 1.16365/69.00%,
fr_loss: 0.23679/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.47056
Part 3 - fp_loss: 1.08848/71.00%, bp_loss: 0.98001/75.00%, h
p_loss: 2.43740/37.00%, j_loss: 0.66960/81.00%,
fr_loss: 0.13676/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.37582
Part 4 - fp_loss: 1.64268/61.00%, bp_loss: 1.08330/72.00%, h
p_loss: 2.66684/31.00%, j_loss: 0.86447/77.00%,
fr_loss: 0.23009/76.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.04094
Training time elapsed: 183.29 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.43505/57.00%, bp_loss: 1.79107/57.00%, h
p_loss: 3.01068/22.00%, j_loss: 1.30377/65.00%,
fr_loss: 0.18519/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.64701
Part 2 - fp_loss: 1.59287/57.00%, bp_loss: 1.35810/66.00%, h
p_loss: 2.79604/29.00%, j_loss: 1.16052/69.00%,
fr_loss: 0.22615/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.42935
Part 3 - fp_loss: 1.15066/69.00%, bp_loss: 1.01780/75.00%, h
p_loss: 2.36824/38.00%, j_loss: 0.69558/80.00%,
fr_loss: 0.14177/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.42849
Part 4 - fp_loss: 1.68625/59.00%, bp_loss: 1.12198/71.00%, h
p_loss: 2.58439/34.00%, j_loss: 0.85209/79.00%,
fr_loss: 0.22229/77.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.02942
Training time elapsed: 219.74 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.51122/56.00%, bp_loss: 1.92665/55.00%, h
p_loss: 3.05121/22.00%, j_loss: 1.33409/65.00%,
fr_loss: 0.18897/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.77202
Part 2 - fp_loss: 1.57133/58.00%, bp_loss: 1.25601/68.00%, h
p_loss: 2.76360/29.00%, j_loss: 1.09247/72.00%,
fr_loss: 0.24915/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.33316
Part 3 - fp_loss: 1.05588/72.00%, bp_loss: 1.03467/74.00%, h
p_loss: 2.38453/38.00%, j_loss: 0.67810/81.00%,
fr_loss: 0.14472/85.00%, p_loss: 0.00000/100.00%,

total weighted loss: 2.37652
Part 4 - fp_loss: 1.66820/60.00%, bp_loss: 1.16846/71.00%, h
p_loss: 2.58504/33.00%, j_loss: 0.83282/77.00%,
fr_loss: 0.25353/75.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.04651
Training time elapsed: 256.17 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.45340/58.00%, bp_loss: 1.91126/54.00%, h
p_loss: 3.08883/20.00%, j_loss: 1.36023/65.00%,
fr_loss: 0.17195/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.75890
Part 2 - fp_loss: 1.66099/56.00%, bp_loss: 1.53652/62.00%, h
p_loss: 2.78155/29.00%, j_loss: 1.33183/66.00%,
fr_loss: 0.22378/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.68152
Part 3 - fp_loss: 1.16526/67.00%, bp_loss: 1.09699/74.00%, h
p_loss: 2.46921/34.00%, j_loss: 0.70839/80.00%,
fr_loss: 0.15736/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.51824
Part 4 - fp_loss: 1.68824/58.00%, bp_loss: 1.12488/70.00%, h
p_loss: 2.59769/32.00%, j_loss: 0.86555/80.00%,
fr_loss: 0.22117/77.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.04761
Training time elapsed: 292.59 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.66463/54.00%, bp_loss: 1.96400/47.00%, h
p_loss: 3.09201/26.00%, j_loss: 1.72341/58.00%,
fr_loss: 0.24602/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.69007
Part 2 - fp_loss: 1.44297/60.00%, bp_loss: 1.96556/47.00%, h
p_loss: 2.55293/41.00%, j_loss: 1.56001/55.00%,
fr_loss: 0.26507/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.78655
Part 3 - fp_loss: 1.07099/71.00%, bp_loss: 1.48532/64.00%, h
p_loss: 2.03236/50.00%, j_loss: 1.05040/72.00%,
fr_loss: 0.18358/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.82265
Part 4 - fp_loss: 1.67108/59.00%, bp_loss: 1.92283/56.00%, h
p_loss: 2.20159/45.00%, j_loss: 1.52500/61.00%,
fr_loss: 0.31910/68.00%, p_loss: 0.00001/100.00%,
total weighted loss: 7.63960
Validation time elapsed: 0.74 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.75707/51.00%, bp_loss: 2.05503/49.00%, h
p_loss: 3.07199/26.00%, j_loss: 1.73646/55.00%,
fr_loss: 0.24878/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.86933
Part 2 - fp_loss: 1.44501/59.00%, bp_loss: 1.76456/57.00%, h
p_loss: 2.54419/42.00%, j_loss: 1.43705/65.00%,
fr_loss: 0.29613/70.00%, p_loss: 0.00000/100.00%,

```
total weighted loss: 7.48693
Part 3 - fp_loss: 1.06395/71.00%, bp_loss: 1.28414/70.00%, h
p_loss: 2.01689/49.00%, j_loss: 0.77069/77.00%,
fr_loss: 0.20019/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.33586
Part 4 - fp_loss: 1.55389/58.00%, bp_loss: 1.42796/64.00%, h
p_loss: 2.19728/44.00%, j_loss: 1.20100/68.00%,
fr_loss: 0.27121/73.00%, p_loss: 0.00001/100.00%,
total weighted loss: 6.65134
`Validation time elapsed: 9.52 seconds
`
```

```
-----
Completed epoch 10.
```

EPOCH 11

```
-----
Train iter 0/802:
Part 1 - fp_loss: 1.46852/58.00%, bp_loss: 1.72131/54.00%, h
p_loss: 3.09270/23.00%, j_loss: 1.45284/61.00%,
fr_loss: 0.17234/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.80364
Part 2 - fp_loss: 1.62954/57.00%, bp_loss: 1.88702/48.00%, h
p_loss: 2.75191/30.00%, j_loss: 1.56734/56.00%,
fr_loss: 0.24508/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.01887
Part 3 - fp_loss: 1.12260/69.00%, bp_loss: 1.30667/67.00%, h
p_loss: 2.49248/34.00%, j_loss: 0.90402/74.00%,
fr_loss: 0.13432/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.73938
Part 4 - fp_loss: 1.86280/57.00%, bp_loss: 1.40177/68.00%, h
p_loss: 2.64344/32.00%, j_loss: 1.10845/71.00%,
fr_loss: 0.24824/75.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.50166
Training time elapsed: 1.07 seconds
```

```
Train iter 100/802:
Part 1 - fp_loss: 1.41929/58.00%, bp_loss: 1.56143/59.00%, h
p_loss: 3.09422/21.00%, j_loss: 1.23342/68.00%,
fr_loss: 0.17065/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.51041
Part 2 - fp_loss: 1.66827/56.00%, bp_loss: 1.37923/67.00%, h
p_loss: 2.77607/29.00%, j_loss: 1.15783/70.00%,
fr_loss: 0.24611/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.48466
Part 3 - fp_loss: 1.15023/67.00%, bp_loss: 0.95191/76.00%, h
p_loss: 2.45616/37.00%, j_loss: 0.67826/79.00%,
fr_loss: 0.13809/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.41388
Part 4 - fp_loss: 1.73039/58.00%, bp_loss: 1.04489/71.00%, h
p_loss: 2.61548/33.00%, j_loss: 0.86979/78.00%,
fr_loss: 0.20650/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.03960
Training time elapsed: 38.50 seconds
```

Train iter 200/802:

Part 1 - fp_loss: 1.45382/58.00%, bp_loss: 1.73560/55.00%, h
p_loss: 3.15776/18.00%, j_loss: 1.34345/66.00%,
fr_loss: 0.16835/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.70672
Part 2 - fp_loss: 1.60616/56.00%, bp_loss: 1.31857/67.00%, h
p_loss: 2.70478/32.00%, j_loss: 1.14405/70.00%,
fr_loss: 0.22380/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.37793
Part 3 - fp_loss: 1.13729/67.00%, bp_loss: 1.11841/72.00%, h
p_loss: 2.41883/37.00%, j_loss: 0.80356/78.00%,
fr_loss: 0.14698/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.58036
Part 4 - fp_loss: 1.67896/57.00%, bp_loss: 1.77307/54.00%, h
p_loss: 2.67034/29.00%, j_loss: 1.38830/66.00%,
fr_loss: 0.20952/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.77032
Training time elapsed: 75.86 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.43006/58.00%, bp_loss: 1.78500/56.00%, h
p_loss: 3.05477/22.00%, j_loss: 1.32626/66.00%,
fr_loss: 0.15113/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.64436
Part 2 - fp_loss: 1.54337/58.00%, bp_loss: 1.23059/67.00%, h
p_loss: 2.70422/31.00%, j_loss: 1.19179/70.00%,
fr_loss: 0.24615/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.39007
Part 3 - fp_loss: 1.12378/69.00%, bp_loss: 1.15126/71.00%, h
p_loss: 2.47789/36.00%, j_loss: 0.81639/80.00%,
fr_loss: 0.14640/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.61343
Part 4 - fp_loss: 1.65672/60.00%, bp_loss: 1.24172/69.00%, h
p_loss: 2.65730/32.00%, j_loss: 0.97126/76.00%,
fr_loss: 0.24324/75.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.21257
Training time elapsed: 113.27 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.36316/59.00%, bp_loss: 1.60936/58.00%, h
p_loss: 2.97162/24.00%, j_loss: 1.19678/70.00%,
fr_loss: 0.16379/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.41644
Part 2 - fp_loss: 1.56686/56.00%, bp_loss: 1.34933/64.00%, h
p_loss: 2.74774/30.00%, j_loss: 1.24719/68.00%,
fr_loss: 0.22692/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.48667
Part 3 - fp_loss: 1.17253/67.00%, bp_loss: 1.15029/71.00%, h
p_loss: 2.43746/36.00%, j_loss: 0.81217/75.00%,
fr_loss: 0.15378/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.62854
Part 4 - fp_loss: 1.66268/58.00%, bp_loss: 1.15026/70.00%, h

p_loss: 2.62146/31.00%, j_loss: 0.91110/76.00%,
fr_loss: 0.20399/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.07795
Training time elapsed: 150.68 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.40542/56.00%, bp_loss: 1.53758/60.00%, h
p_loss: 3.15473/20.00%, j_loss: 1.24921/69.00%,
fr_loss: 0.17057/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.53018
Part 2 - fp_loss: 1.49720/59.00%, bp_loss: 1.28010/68.00%, h
p_loss: 2.65324/33.00%, j_loss: 1.09313/71.00%,
fr_loss: 0.21824/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.23997
Part 3 - fp_loss: 1.06477/71.00%, bp_loss: 1.26394/70.00%, h
p_loss: 2.40075/38.00%, j_loss: 0.75794/79.00%,
fr_loss: 0.14213/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.53186
Part 4 - fp_loss: 1.56661/62.00%, bp_loss: 1.23428/71.00%, h
p_loss: 2.63390/31.00%, j_loss: 0.84128/80.00%,
fr_loss: 0.20099/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.98603
Training time elapsed: 188.07 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.34624/63.00%, bp_loss: 1.62558/57.00%, h
p_loss: 3.07952/21.00%, j_loss: 1.12907/72.00%,
fr_loss: 0.17112/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.38484
Part 2 - fp_loss: 1.46719/60.00%, bp_loss: 1.29583/67.00%, h
p_loss: 2.70185/31.00%, j_loss: 1.08512/73.00%,
fr_loss: 0.23646/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.25448
Part 3 - fp_loss: 1.06147/70.00%, bp_loss: 0.87658/78.00%, h
p_loss: 2.32378/39.00%, j_loss: 0.60540/83.00%,
fr_loss: 0.14491/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.24115
Part 4 - fp_loss: 1.68128/58.00%, bp_loss: 1.10453/72.00%, h
p_loss: 2.65372/30.00%, j_loss: 0.86343/77.00%,
fr_loss: 0.24241/76.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.07395
Training time elapsed: 225.47 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.45136/59.00%, bp_loss: 1.45355/61.00%, h
p_loss: 3.07791/21.00%, j_loss: 1.11007/73.00%,
fr_loss: 0.16330/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.35848
Part 2 - fp_loss: 1.48627/61.00%, bp_loss: 1.26106/69.00%, h
p_loss: 2.75487/29.00%, j_loss: 1.06947/74.00%,
fr_loss: 0.21938/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.23676
Part 3 - fp_loss: 1.20126/67.00%, bp_loss: 1.05578/74.00%, h

p_loss: 2.45428/36.00%, j_loss: 0.74980/80.00%,
fr_loss: 0.15213/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.55558
Part 4 - fp_loss: 1.61870/60.00%, bp_loss: 1.01474/73.00%, h
p_loss: 2.60262/32.00%, j_loss: 0.82154/79.00%,
fr_loss: 0.21807/78.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.93417
Training time elapsed: 262.87 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.44213/56.00%, bp_loss: 1.51325/60.00%, h
p_loss: 3.02599/22.00%, j_loss: 1.24203/70.00%,
fr_loss: 0.18196/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.50683
Part 2 - fp_loss: 1.50988/58.00%, bp_loss: 1.25416/68.00%, h
p_loss: 2.75202/29.00%, j_loss: 1.07621/71.00%,
fr_loss: 0.23307/76.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.26608
Part 3 - fp_loss: 1.19677/66.00%, bp_loss: 1.01636/75.00%, h
p_loss: 2.45134/37.00%, j_loss: 0.78110/77.00%,
fr_loss: 0.16537/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.58516
Part 4 - fp_loss: 1.59967/60.00%, bp_loss: 1.06182/71.00%, h
p_loss: 2.62567/31.00%, j_loss: 0.83696/77.00%,
fr_loss: 0.22249/77.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.96553
Training time elapsed: 300.26 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.77881/50.00%, bp_loss: 1.93616/47.00%, h
p_loss: 3.12478/23.00%, j_loss: 1.79721/55.00%,
fr_loss: 0.25261/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.88957
Part 2 - fp_loss: 1.34265/63.00%, bp_loss: 1.93658/48.00%, h
p_loss: 2.52737/43.00%, j_loss: 1.56153/55.00%,
fr_loss: 0.24219/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.61032
Part 3 - fp_loss: 1.09326/70.00%, bp_loss: 1.57174/60.00%, h
p_loss: 1.97013/50.00%, j_loss: 1.07330/67.00%,
fr_loss: 0.19495/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.90338
Part 4 - fp_loss: 1.63165/60.00%, bp_loss: 2.29004/52.00%, h
p_loss: 2.24865/42.00%, j_loss: 1.61245/55.00%,
fr_loss: 0.27290/72.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.05570
`Validation time elapsed: 0.75 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.72763/53.00%, bp_loss: 1.79488/53.00%, h
p_loss: 3.05503/27.00%, j_loss: 1.62518/59.00%,
fr_loss: 0.22539/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.42811
Part 2 - fp_loss: 1.41204/59.00%, bp_loss: 1.39021/67.00%, h

p_loss: 2.53816/42.00%, j_loss: 1.15052/71.00%,
fr_loss: 0.26037/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.75130
Part 3 - fp_loss: 1.20540/68.00%, bp_loss: 1.25804/71.00%, h
p_loss: 1.94432/50.00%, j_loss: 0.86299/76.00%,
fr_loss: 0.20624/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.47699
Part 4 - fp_loss: 1.45604/62.00%, bp_loss: 1.54071/63.00%, h
p_loss: 2.10999/47.00%, j_loss: 1.12691/68.00%,
fr_loss: 0.23300/76.00%, p_loss: 0.00001/100.00%,
total weighted loss: 6.46666
`Validation time elapsed: 9.56 seconds
`

Completed epoch 11.

EPOCH 12

Train iter 0/802:

Part 1 - fp_loss: 1.42642/57.00%, bp_loss: 1.62992/56.00%, h
p_loss: 3.10881/20.00%, j_loss: 1.37472/63.00%,
fr_loss: 0.16462/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.67417
Part 2 - fp_loss: 1.47915/60.00%, bp_loss: 1.76213/53.00%, h
p_loss: 2.69082/32.00%, j_loss: 1.48159/58.00%,
fr_loss: 0.22396/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.78101
Part 3 - fp_loss: 1.02769/71.00%, bp_loss: 1.38765/67.00%, h
p_loss: 2.41759/38.00%, j_loss: 0.93936/73.00%,
fr_loss: 0.12795/87.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.72273
Part 4 - fp_loss: 1.76654/54.00%, bp_loss: 1.66833/63.00%, h
p_loss: 2.63602/33.00%, j_loss: 1.33357/66.00%,
fr_loss: 0.25518/75.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.76332
Training time elapsed: 1.08 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.49691/57.00%, bp_loss: 1.72227/57.00%, h
p_loss: 3.10620/22.00%, j_loss: 1.35940/66.00%,
fr_loss: 0.17615/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.73254
Part 2 - fp_loss: 1.44647/60.00%, bp_loss: 1.17764/70.00%, h
p_loss: 2.71318/29.00%, j_loss: 1.03470/74.00%,
fr_loss: 0.20892/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.13410
Part 3 - fp_loss: 1.09725/71.00%, bp_loss: 1.26217/71.00%, h
p_loss: 2.41035/37.00%, j_loss: 0.73669/80.00%,
fr_loss: 0.11074/88.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.49781
Part 4 - fp_loss: 1.42616/62.00%, bp_loss: 1.10376/71.00%, h
p_loss: 2.54425/34.00%, j_loss: 0.78719/79.00%,
fr_loss: 0.20722/79.00%, p_loss: 0.00001/100.00%,

total weighted loss: 2.80189
Training time elapsed: 38.43 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.46818/56.00%, bp_loss: 1.47850/60.00%, h
p_loss: 3.12313/20.00%, j_loss: 1.20351/69.00%,
fr_loss: 0.16062/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.47871
Part 2 - fp_loss: 1.54093/57.00%, bp_loss: 1.24763/68.00%, h
p_loss: 2.70716/30.00%, j_loss: 1.11364/71.00%,
fr_loss: 0.21020/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.28075
Part 3 - fp_loss: 1.18494/66.00%, bp_loss: 1.32131/67.00%, h
p_loss: 2.48254/34.00%, j_loss: 1.04158/75.00%,
fr_loss: 0.14023/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.91543
Part 4 - fp_loss: 1.52171/61.00%, bp_loss: 1.09051/73.00%, h
p_loss: 2.64086/32.00%, j_loss: 0.81463/80.00%,
fr_loss: 0.18951/81.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.88440
Training time elapsed: 75.80 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.34033/60.00%, bp_loss: 1.44483/61.00%, h
p_loss: 3.06501/23.00%, j_loss: 1.16913/68.00%,
fr_loss: 0.15453/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.34677
Part 2 - fp_loss: 1.51452/59.00%, bp_loss: 1.16951/70.00%, h
p_loss: 2.70262/30.00%, j_loss: 1.02363/72.00%,
fr_loss: 0.22525/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.16778
Part 3 - fp_loss: 1.15683/69.00%, bp_loss: 0.95613/77.00%, h
p_loss: 2.35971/39.00%, j_loss: 0.70304/82.00%,
fr_loss: 0.15247/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.42868
Part 4 - fp_loss: 1.57827/61.00%, bp_loss: 1.13963/73.00%, h
p_loss: 2.60161/33.00%, j_loss: 0.81872/77.00%,
fr_loss: 0.23615/76.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.96638
Training time elapsed: 113.20 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.55893/56.00%, bp_loss: 1.65035/58.00%, h
p_loss: 3.15765/20.00%, j_loss: 1.28563/67.00%,
fr_loss: 0.18766/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.69515
Part 2 - fp_loss: 1.49818/59.00%, bp_loss: 1.31772/68.00%, h
p_loss: 2.78099/29.00%, j_loss: 1.04914/72.00%,
fr_loss: 0.23259/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.26044
Part 3 - fp_loss: 1.17452/68.00%, bp_loss: 0.95684/75.00%, h
p_loss: 2.47186/35.00%, j_loss: 0.67980/83.00%,
fr_loss: 0.15090/84.00%, p_loss: 0.00000/100.00%,

total weighted loss: 2.44657
Part 4 - fp_loss: 1.56202/60.00%, bp_loss: 1.08822/72.00%, h
p_loss: 2.57310/33.00%, j_loss: 0.83158/78.00%,
fr_loss: 0.21962/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.93060
Training time elapsed: 150.58 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.42853/58.00%, bp_loss: 1.54216/60.00%, h
p_loss: 3.14694/20.00%, j_loss: 1.15659/72.00%,
fr_loss: 0.15916/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.43675
Part 2 - fp_loss: 1.51178/59.00%, bp_loss: 1.26087/69.00%, h
p_loss: 2.79062/29.00%, j_loss: 1.06503/74.00%,
fr_loss: 0.22353/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.25991
Part 3 - fp_loss: 1.16734/69.00%, bp_loss: 1.22661/70.00%, h
p_loss: 2.49947/34.00%, j_loss: 0.83083/79.00%,
fr_loss: 0.14163/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.67395
Part 4 - fp_loss: 1.56138/60.00%, bp_loss: 1.03166/72.00%, h
p_loss: 2.62791/33.00%, j_loss: 0.83813/78.00%,
fr_loss: 0.19353/80.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.91023
Training time elapsed: 187.97 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.31835/61.00%, bp_loss: 1.44491/60.00%, h
p_loss: 3.07567/22.00%, j_loss: 1.10193/74.00%,
fr_loss: 0.16323/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.28051
Part 2 - fp_loss: 1.46794/59.00%, bp_loss: 1.24822/70.00%, h
p_loss: 2.76015/30.00%, j_loss: 1.07454/71.00%,
fr_loss: 0.19977/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.21079
Part 3 - fp_loss: 1.16314/68.00%, bp_loss: 0.94650/75.00%, h
p_loss: 2.44347/36.00%, j_loss: 0.68107/82.00%,
fr_loss: 0.14012/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.41975
Part 4 - fp_loss: 1.50615/62.00%, bp_loss: 0.99928/75.00%, h
p_loss: 2.61906/32.00%, j_loss: 0.69626/81.00%,
fr_loss: 0.18332/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.71815
Training time elapsed: 225.36 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.41471/57.00%, bp_loss: 1.50258/59.00%, h
p_loss: 3.08478/22.00%, j_loss: 1.27961/68.00%,
fr_loss: 0.16500/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.52817
Part 2 - fp_loss: 1.48853/60.00%, bp_loss: 1.27089/67.00%, h
p_loss: 2.77111/29.00%, j_loss: 1.07013/72.00%,
fr_loss: 0.22625/77.00%, p_loss: 0.00000/100.00%,

total weighted loss: 3.25324
Part 3 - fp_loss: 1.10465/70.00%, bp_loss: 0.90318/78.00%, h
p_loss: 2.43731/36.00%, j_loss: 0.60894/83.00%,
fr_loss: 0.13887/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.30227
Part 4 - fp_loss: 1.48151/63.00%, bp_loss: 0.98901/73.00%, h
p_loss: 2.64357/32.00%, j_loss: 0.67969/81.00%,
fr_loss: 0.22916/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.73937
Training time elapsed: 262.71 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.40389/58.00%, bp_loss: 1.73611/55.00%, h
p_loss: 3.05646/23.00%, j_loss: 1.33235/66.00%,
fr_loss: 0.15268/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.62474
Part 2 - fp_loss: 1.43769/62.00%, bp_loss: 1.28784/67.00%, h
p_loss: 2.69666/31.00%, j_loss: 1.08463/73.00%,
fr_loss: 0.22155/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.22038
Part 3 - fp_loss: 1.23141/67.00%, bp_loss: 0.88081/77.00%, h
p_loss: 2.41335/36.00%, j_loss: 0.69851/81.00%,
fr_loss: 0.13297/87.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.43543
Part 4 - fp_loss: 1.45191/63.00%, bp_loss: 1.03274/72.00%, h
p_loss: 2.58447/34.00%, j_loss: 0.80203/79.00%,
fr_loss: 0.20195/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.81510
Training time elapsed: 300.07 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.74289/51.00%, bp_loss: 1.90518/49.00%, h
p_loss: 3.10246/25.00%, j_loss: 1.77997/55.00%,
fr_loss: 0.22938/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.75989
Part 2 - fp_loss: 1.32809/62.00%, bp_loss: 1.68992/56.00%, h
p_loss: 2.47926/44.00%, j_loss: 1.38181/61.00%,
fr_loss: 0.24052/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.11960
Part 3 - fp_loss: 1.10486/72.00%, bp_loss: 1.47634/65.00%, h
p_loss: 1.96321/51.00%, j_loss: 0.97301/73.00%,
fr_loss: 0.18798/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.70540
Part 4 - fp_loss: 1.38138/64.00%, bp_loss: 2.35397/54.00%, h
p_loss: 2.18632/46.00%, j_loss: 1.40215/60.00%,
fr_loss: 0.27864/72.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.60247
`Validation time elapsed: 0.75 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.77401/52.00%, bp_loss: 1.92365/50.00%, h
p_loss: 3.11170/25.00%, j_loss: 1.74803/58.00%,
fr_loss: 0.24262/75.00%, p_loss: 0.00000/100.00%,

```
total weighted loss: 8.80000
Part 2 - fp_loss: 1.44315/60.00%, bp_loss: 1.41437/67.00%, h
p_loss: 2.53047/42.00%, j_loss: 1.16444/72.00%,
fr_loss: 0.25023/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.80266
Part 3 - fp_loss: 1.14353/70.00%, bp_loss: 1.17248/74.00%, h
p_loss: 1.96139/52.00%, j_loss: 0.74972/80.00%,
fr_loss: 0.19836/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.22548
Part 4 - fp_loss: 1.33384/64.00%, bp_loss: 1.27254/70.00%, h
p_loss: 2.21945/45.00%, j_loss: 0.75217/77.00%,
fr_loss: 0.24060/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.81861
Validation time elapsed: 9.57 seconds
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```

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Completed epoch 12.
```

EPOCH 13

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Train iter 0/802:
Part 1 - fp_loss: 1.33479/60.00%, bp_loss: 1.75517/53.00%, h
p_loss: 3.15947/20.00%, j_loss: 1.33486/65.00%,
fr_loss: 0.17568/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.65234
Part 2 - fp_loss: 1.53023/58.00%, bp_loss: 1.46380/63.00%, h
p_loss: 2.71787/31.00%, j_loss: 1.24380/66.00%,
fr_loss: 0.21070/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.47412
Part 3 - fp_loss: 1.25901/65.00%, bp_loss: 1.33113/66.00%, h
p_loss: 2.38751/39.00%, j_loss: 0.96906/71.00%,
fr_loss: 0.15938/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.87354
Part 4 - fp_loss: 1.69894/56.00%, bp_loss: 1.93521/60.00%, h
p_loss: 2.63869/32.00%, j_loss: 1.29553/65.00%,
fr_loss: 0.24259/76.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.75976
Training time elapsed: 1.00 seconds
```

```
Train iter 100/802:
Part 1 - fp_loss: 1.27951/61.00%, bp_loss: 1.35789/64.00%, h
p_loss: 3.02132/22.00%, j_loss: 1.03932/76.00%,
fr_loss: 0.14269/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.13553
Part 2 - fp_loss: 1.41859/60.00%, bp_loss: 1.54444/64.00%, h
p_loss: 2.68985/30.00%, j_loss: 1.09080/69.00%,
fr_loss: 0.21744/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.28783
Part 3 - fp_loss: 1.18852/67.00%, bp_loss: 0.91273/78.00%, h
p_loss: 2.36550/38.00%, j_loss: 0.63343/83.00%,
fr_loss: 0.14772/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.35888
Part 4 - fp_loss: 1.53081/60.00%, bp_loss: 1.19581/68.00%, h
```

p_loss: 2.54227/34.00%, j_loss: 0.88942/75.00%,
fr_loss: 0.21412/78.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.99037
Training time elapsed: 37.71 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.32853/62.00%, bp_loss: 1.92043/50.00%, h
p_loss: 3.10439/22.00%, j_loss: 1.34787/68.00%,
fr_loss: 0.16574/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.68532
Part 2 - fp_loss: 1.49198/59.00%, bp_loss: 1.23355/66.00%, h
p_loss: 2.76262/28.00%, j_loss: 1.13806/71.00%,
fr_loss: 0.23690/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.31980
Part 3 - fp_loss: 1.31964/65.00%, bp_loss: 0.97843/75.00%, h
p_loss: 2.44177/36.00%, j_loss: 0.77478/80.00%,
fr_loss: 0.17930/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.63996
Part 4 - fp_loss: 1.51670/62.00%, bp_loss: 1.45856/65.00%, h
p_loss: 2.65274/31.00%, j_loss: 0.94129/76.00%,
fr_loss: 0.21774/78.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.15077
Training time elapsed: 74.47 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.39225/60.00%, bp_loss: 1.50341/59.00%, h
p_loss: 3.15773/20.00%, j_loss: 1.18812/73.00%,
fr_loss: 0.14145/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.42404
Part 2 - fp_loss: 1.49973/59.00%, bp_loss: 1.25004/69.00%, h
p_loss: 2.69755/31.00%, j_loss: 1.05410/72.00%,
fr_loss: 0.25424/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.24247
Part 3 - fp_loss: 1.40618/63.00%, bp_loss: 0.90655/76.00%, h
p_loss: 2.35954/39.00%, j_loss: 0.77533/79.00%,
fr_loss: 0.21274/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.67098
Part 4 - fp_loss: 1.50375/61.00%, bp_loss: 1.08271/71.00%, h
p_loss: 2.66989/32.00%, j_loss: 0.79956/79.00%,
fr_loss: 0.19401/80.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.87122
Training time elapsed: 111.15 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.39572/60.00%, bp_loss: 1.90914/54.00%, h
p_loss: 3.07823/22.00%, j_loss: 1.29017/67.00%,
fr_loss: 0.15076/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.63500
Part 2 - fp_loss: 1.52098/59.00%, bp_loss: 1.28491/67.00%, h
p_loss: 2.75484/30.00%, j_loss: 1.09632/68.00%,
fr_loss: 0.22691/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.29565
Part 3 - fp_loss: 2.45323/45.00%, bp_loss: 0.84623/79.00%, h

p_loss: 2.42032/38.00%, j_loss: 1.04212/79.00%,
fr_loss: 0.31086/68.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.55956
Part 4 - fp_loss: 1.53478/59.00%, bp_loss: 1.12927/70.00%, h
p_loss: 2.57368/34.00%, j_loss: 0.91848/76.00%,
fr_loss: 0.21904/78.00%, p_loss: 0.00001/100.00%,
total weighted loss: 3.01580
Training time elapsed: 147.81 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.35037/61.00%, bp_loss: 1.59669/61.00%, h
p_loss: 3.04946/23.00%, j_loss: 1.14232/73.00%,
fr_loss: 0.14889/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.36023
Part 2 - fp_loss: 1.32885/63.00%, bp_loss: 1.17965/70.00%, h
p_loss: 2.69324/33.00%, j_loss: 0.95376/73.00%,
fr_loss: 0.22214/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.00220
Part 3 - fp_loss: 2.05678/53.00%, bp_loss: 0.96160/76.00%, h
p_loss: 2.35435/37.00%, j_loss: 1.00636/76.00%,
fr_loss: 0.39176/60.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.42130
Part 4 - fp_loss: 1.40962/63.00%, bp_loss: 1.36268/68.00%, h
p_loss: 2.61478/31.00%, j_loss: 0.86023/77.00%,
fr_loss: 0.19940/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.95768
Training time elapsed: 184.49 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.49846/58.00%, bp_loss: 1.74417/55.00%, h
p_loss: 3.08406/20.00%, j_loss: 1.35421/67.00%,
fr_loss: 0.15256/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.70447
Part 2 - fp_loss: 1.51082/60.00%, bp_loss: 1.43872/65.00%, h
p_loss: 2.76233/29.00%, j_loss: 1.16300/70.00%,
fr_loss: 0.19735/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.37608
Part 3 - fp_loss: 1.92832/56.00%, bp_loss: 0.87962/77.00%, h
p_loss: 2.40997/36.00%, j_loss: 0.88914/78.00%,
fr_loss: 0.34290/65.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.18307
Part 4 - fp_loss: 1.49831/61.00%, bp_loss: 0.94902/75.00%, h
p_loss: 2.61581/32.00%, j_loss: 0.75031/80.00%,
fr_loss: 0.21879/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.78771
Training time elapsed: 221.13 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.46109/57.00%, bp_loss: 1.65307/58.00%, h
p_loss: 3.07577/22.00%, j_loss: 1.28047/68.00%,
fr_loss: 0.16506/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.59472
Part 2 - fp_loss: 1.43561/61.00%, bp_loss: 1.25517/68.00%, h

p_loss: 2.73518/32.00%, j_loss: 1.02701/72.00%,
fr_loss: 0.21527/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.15719
Part 3 - fp_loss: 1.85989/55.00%, bp_loss: 1.01159/74.00%, h
p_loss: 2.39183/38.00%, j_loss: 0.93236/75.00%,
fr_loss: 0.37572/63.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.25905
Part 4 - fp_loss: 1.53298/60.00%, bp_loss: 1.10935/70.00%, h
p_loss: 2.58932/33.00%, j_loss: 0.84514/79.00%,
fr_loss: 0.20104/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.92227
Training time elapsed: 257.81 seconds

Train iter 800/802:

Part 1 - fp_loss: 1.28857/62.00%, bp_loss: 1.55914/58.00%, h
p_loss: 3.05763/24.00%, j_loss: 1.18401/71.00%,
fr_loss: 0.14113/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.35445
Part 2 - fp_loss: 1.34929/62.00%, bp_loss: 1.42584/67.00%, h
p_loss: 2.68738/32.00%, j_loss: 1.06762/71.00%,
fr_loss: 0.22029/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.19652
Part 3 - fp_loss: 1.98043/54.00%, bp_loss: 1.00339/74.00%, h
p_loss: 2.48359/36.00%, j_loss: 0.99400/76.00%,
fr_loss: 0.32097/67.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.35128
Part 4 - fp_loss: 1.42200/64.00%, bp_loss: 1.09645/72.00%, h
p_loss: 2.67072/33.00%, j_loss: 0.80856/78.00%,
fr_loss: 0.22125/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.87096
Training time elapsed: 294.46 seconds

Valid iter 0/160:

Part 1 - fp_loss: 1.62990/55.00%, bp_loss: 1.53707/58.00%, h
p_loss: 3.04058/26.00%, j_loss: 1.44003/65.00%,
fr_loss: 0.26661/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.91419
Part 2 - fp_loss: 1.36703/62.00%, bp_loss: 1.73636/56.00%, h
p_loss: 2.56637/41.00%, j_loss: 1.28712/62.00%,
fr_loss: 0.24788/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.20477
Part 3 - fp_loss: 1.62846/60.00%, bp_loss: 1.16323/69.00%, h
p_loss: 1.91243/53.00%, j_loss: 1.21983/69.00%,
fr_loss: 0.41704/58.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.34099
Part 4 - fp_loss: 1.34933/66.00%, bp_loss: 2.29124/58.00%, h
p_loss: 2.18297/46.00%, j_loss: 1.26697/63.00%,
fr_loss: 0.26024/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.35076
Validation time elapsed: 0.74 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 1.84198/50.00%, bp_loss: 1.84048/53.00%, h

p_loss: 3.08146/26.00%, j_loss: 1.68830/60.00%,
fr_loss: 0.27436/72.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.72658
Part 2 - fp_loss: 1.42244/61.00%, bp_loss: 1.50390/65.00%, h
p_loss: 2.46597/45.00%, j_loss: 1.15561/68.00%,
fr_loss: 0.25577/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.80371
Part 3 - fp_loss: 1.59999/59.00%, bp_loss: 1.17952/72.00%, h
p_loss: 1.94573/52.00%, j_loss: 1.08665/73.00%,
fr_loss: 0.42084/57.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.23273
Part 4 - fp_loss: 1.26569/67.00%, bp_loss: 1.22155/69.00%, h
p_loss: 2.13626/46.00%, j_loss: 0.83981/79.00%,
fr_loss: 0.25803/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.72133
`Validation time elapsed: 9.54 seconds
`

Completed epoch 13.

EPOCH 14

Train iter 0/802:

Part 1 - fp_loss: 1.40551/58.00%, bp_loss: 1.41891/60.00%, h
p_loss: 3.13831/19.00%, j_loss: 1.18361/73.00%,
fr_loss: 0.15502/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.40855
Part 2 - fp_loss: 1.36199/62.00%, bp_loss: 1.53237/62.00%, h
p_loss: 2.75380/30.00%, j_loss: 1.14595/68.00%,
fr_loss: 0.21280/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.32559
Part 3 - fp_loss: 1.94617/54.00%, bp_loss: 1.04662/72.00%, h
p_loss: 2.43961/36.00%, j_loss: 1.07822/74.00%,
fr_loss: 0.32766/67.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.42483
Part 4 - fp_loss: 1.49148/63.00%, bp_loss: 1.71248/66.00%, h
p_loss: 2.64358/32.00%, j_loss: 1.01908/75.00%,
fr_loss: 0.20920/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.28083
Training time elapsed: 1.10 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.43917/58.00%, bp_loss: 1.52138/58.00%, h
p_loss: 3.07092/21.00%, j_loss: 1.24192/70.00%,
fr_loss: 0.14533/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.48453
Part 2 - fp_loss: 1.36083/62.00%, bp_loss: 1.20541/69.00%, h
p_loss: 2.67058/32.00%, j_loss: 0.99397/73.00%,
fr_loss: 0.21545/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.05263
Part 3 - fp_loss: 1.76279/59.00%, bp_loss: 0.93862/75.00%, h
p_loss: 2.29632/39.00%, j_loss: 0.90120/75.00%,
fr_loss: 0.34629/65.00%, p_loss: 0.00000/100.00%,

total weighted loss: 3.09937
Part 4 - fp_loss: 1.41772/63.00%, bp_loss: 0.96660/75.00%, h
p_loss: 2.54433/36.00%, j_loss: 0.68791/82.00%,
fr_loss: 0.21577/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.66582
Training time elapsed: 38.55 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.29461/63.00%, bp_loss: 1.56324/60.00%, h
p_loss: 3.08909/23.00%, j_loss: 1.16434/74.00%,
fr_loss: 0.13984/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.34719
Part 2 - fp_loss: 1.40815/62.00%, bp_loss: 1.29202/68.00%, h
p_loss: 2.71381/31.00%, j_loss: 1.06410/71.00%,
fr_loss: 0.21831/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.18823
Part 3 - fp_loss: 1.86497/56.00%, bp_loss: 0.89815/76.00%, h
p_loss: 2.38093/37.00%, j_loss: 0.97333/76.00%,
fr_loss: 0.32007/68.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.20961
Part 4 - fp_loss: 1.33242/66.00%, bp_loss: 1.08794/72.00%, h
p_loss: 2.58993/34.00%, j_loss: 0.81694/78.00%,
fr_loss: 0.20291/79.00%, p_loss: 0.00001/100.00%,
total weighted loss: 2.78942
Training time elapsed: 75.94 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.30457/61.00%, bp_loss: 1.44591/60.00%, h
p_loss: 3.01896/24.00%, j_loss: 1.07410/75.00%,
fr_loss: 0.16453/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.23037
Part 2 - fp_loss: 1.34559/64.00%, bp_loss: 2.12621/44.00%, h
p_loss: 2.66950/32.00%, j_loss: 1.41108/63.00%,
fr_loss: 0.21246/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.73504
Part 3 - fp_loss: 1.84681/56.00%, bp_loss: 0.86437/78.00%, h
p_loss: 2.40343/36.00%, j_loss: 0.84247/79.00%,
fr_loss: 0.31716/67.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.06337
Part 4 - fp_loss: 1.40102/63.00%, bp_loss: 1.08346/73.00%, h
p_loss: 2.59673/33.00%, j_loss: 0.74619/81.00%,
fr_loss: 0.20064/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.75140
Training time elapsed: 113.36 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.40872/58.00%, bp_loss: 1.56359/59.00%, h
p_loss: 3.09886/23.00%, j_loss: 1.16595/73.00%,
fr_loss: 0.15630/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.42535
Part 2 - fp_loss: 1.45114/59.00%, bp_loss: 1.54499/60.00%, h
p_loss: 2.68419/33.00%, j_loss: 1.22740/64.00%,
fr_loss: 0.21397/78.00%, p_loss: 0.00000/100.00%,

total weighted loss: 3.43569
Part 3 - fp_loss: 1.92357/55.00%, bp_loss: 0.85718/78.00%, h
p_loss: 2.41736/36.00%, j_loss: 0.87957/78.00%,
fr_loss: 0.36689/64.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.19060
Part 4 - fp_loss: 1.40794/64.00%, bp_loss: 1.18291/68.00%, h
p_loss: 2.54155/35.00%, j_loss: 0.90701/78.00%,
fr_loss: 0.22089/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.94921
Training time elapsed: 150.75 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.43843/57.00%, bp_loss: 1.45414/60.00%, h
p_loss: 3.07906/23.00%, j_loss: 1.26402/70.00%,
fr_loss: 0.14803/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.49123
Part 2 - fp_loss: 1.41986/61.00%, bp_loss: 1.39069/67.00%, h
p_loss: 2.67030/33.00%, j_loss: 1.06579/70.00%,
fr_loss: 0.20945/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.20346
Part 3 - fp_loss: 1.93028/55.00%, bp_loss: 0.89859/77.00%, h
p_loss: 2.43246/37.00%, j_loss: 0.88204/78.00%,
fr_loss: 0.37110/63.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.21759
Part 4 - fp_loss: 1.40407/64.00%, bp_loss: 1.00950/74.00%, h
p_loss: 2.60194/35.00%, j_loss: 0.74504/80.00%,
fr_loss: 0.21494/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.74544
Training time elapsed: 188.15 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.38069/62.00%, bp_loss: 1.42055/61.00%, h
p_loss: 3.06616/24.00%, j_loss: 1.16095/71.00%,
fr_loss: 0.16402/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.36133
Part 2 - fp_loss: 1.36999/62.00%, bp_loss: 1.45461/65.00%, h
p_loss: 2.68330/31.00%, j_loss: 1.08562/70.00%,
fr_loss: 0.21871/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.23071
Part 3 - fp_loss: 1.90650/55.00%, bp_loss: 0.87756/78.00%, h
p_loss: 2.44312/37.00%, j_loss: 0.89870/78.00%,
fr_loss: 0.31931/68.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.16747
Part 4 - fp_loss: 1.44311/61.00%, bp_loss: 0.97964/73.00%, h
p_loss: 2.62522/32.00%, j_loss: 0.78175/80.00%,
fr_loss: 0.18533/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.77009
Training time elapsed: 225.53 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.42754/57.00%, bp_loss: 1.51908/58.00%, h
p_loss: 3.08540/22.00%, j_loss: 1.32551/67.00%,
fr_loss: 0.15472/84.00%, p_loss: 0.00000/100.00%,

```
total weighted loss: 3.57535
Part 2 - fp_loss: 1.42044/59.00%, bp_loss: 1.36093/65.00%, h
p_loss: 2.69400/30.00%, j_loss: 1.09923/70.00%,
fr_loss: 0.23428/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.26021
Part 3 - fp_loss: 1.91033/55.00%, bp_loss: 0.88639/78.00%, h
p_loss: 2.42534/35.00%, j_loss: 0.84881/78.00%,
fr_loss: 0.32405/67.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.12155
Part 4 - fp_loss: 1.46909/61.00%, bp_loss: 1.31782/70.00%, h
p_loss: 2.61292/34.00%, j_loss: 0.86496/78.00%,
fr_loss: 0.21053/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.98926
Training time elapsed: 262.91 seconds
```

Train iter 800/802:

```
Part 1 - fp_loss: 1.34604/60.00%, bp_loss: 1.51046/58.00%, h
p_loss: 3.10201/21.00%, j_loss: 1.22055/71.00%,
fr_loss: 0.14105/86.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.41835
Part 2 - fp_loss: 1.49271/61.00%, bp_loss: 1.44057/65.00%, h
p_loss: 2.76254/30.00%, j_loss: 1.08136/71.00%,
fr_loss: 0.22841/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.31706
Part 3 - fp_loss: 1.82438/57.00%, bp_loss: 0.87701/76.00%, h
p_loss: 2.44273/36.00%, j_loss: 0.85535/77.00%,
fr_loss: 0.33735/66.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.10081
Part 4 - fp_loss: 1.40084/64.00%, bp_loss: 0.98050/73.00%, h
p_loss: 2.58146/33.00%, j_loss: 0.77707/80.00%,
fr_loss: 0.20578/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.75186
Training time elapsed: 300.27 seconds
```

Valid iter 0/160:

```
Part 1 - fp_loss: 1.73643/51.00%, bp_loss: 1.72616/52.00%, h
p_loss: 3.04032/26.00%, j_loss: 1.71112/58.00%,
fr_loss: 0.26113/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.47517
Part 2 - fp_loss: 1.36580/61.00%, bp_loss: 1.87547/55.00%, h
p_loss: 2.59577/41.00%, j_loss: 1.36365/62.00%,
fr_loss: 0.23513/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.43582
Part 3 - fp_loss: 1.68507/58.00%, bp_loss: 1.08937/70.00%, h
p_loss: 2.01632/50.00%, j_loss: 1.17011/71.00%,
fr_loss: 0.38951/60.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.35038
Part 4 - fp_loss: 1.31981/67.00%, bp_loss: 1.91657/59.00%, h
p_loss: 2.18562/44.00%, j_loss: 1.23355/64.00%,
fr_loss: 0.23545/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.89101
Validation time elapsed: 0.74 seconds
```

Valid iter 100/160:

Part 1 - fp_loss: 1.69790/53.00%, bp_loss: 1.74554/53.00%, h
p_loss: 3.11020/23.00%, j_loss: 1.62805/62.00%,
fr_loss: 0.25468/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 8.43636

Part 2 - fp_loss: 1.35598/61.00%, bp_loss: 1.69790/62.00%, h
p_loss: 2.52674/42.00%, j_loss: 1.20854/67.00%,
fr_loss: 0.25298/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.04214

Part 3 - fp_loss: 1.61055/61.00%, bp_loss: 1.08451/75.00%, h
p_loss: 1.98720/51.00%, j_loss: 0.94932/75.00%,
fr_loss: 0.39872/59.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.03030

Part 4 - fp_loss: 1.31660/65.00%, bp_loss: 1.19301/70.00%, h
p_loss: 2.23752/43.00%, j_loss: 0.81436/78.00%,
fr_loss: 0.21716/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.77866

Validation time elapsed: 9.51 seconds

~

Completed epoch 14.

EPOCH 15

Train iter 0/802:

Part 1 - fp_loss: 1.35045/62.00%, bp_loss: 1.42832/61.00%, h
p_loss: 3.09501/21.00%, j_loss: 1.14278/72.00%,
fr_loss: 0.14872/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.32373

Part 2 - fp_loss: 1.33357/62.00%, bp_loss: 1.51748/60.00%, h
p_loss: 2.70455/32.00%, j_loss: 1.14272/69.00%,
fr_loss: 0.22545/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.30156

Part 3 - fp_loss: 1.87471/54.00%, bp_loss: 0.87579/77.00%, h
p_loss: 2.42310/37.00%, j_loss: 0.92826/78.00%,
fr_loss: 0.32760/67.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.18288

Part 4 - fp_loss: 1.51570/61.00%, bp_loss: 1.48056/68.00%, h
p_loss: 2.63820/34.00%, j_loss: 1.09639/71.00%,
fr_loss: 0.19601/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.28588

Training time elapsed: 1.05 seconds

Train iter 100/802:

Part 1 - fp_loss: 1.44160/59.00%, bp_loss: 1.56276/57.00%, h
p_loss: 3.13265/20.00%, j_loss: 1.31519/69.00%,
fr_loss: 0.14673/85.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.59135

Part 2 - fp_loss: 1.37010/62.00%, bp_loss: 1.37998/67.00%, h
p_loss: 2.73796/30.00%, j_loss: 1.06687/71.00%,
fr_loss: 0.21044/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.19775

Part 3 - fp_loss: 1.78332/60.00%, bp_loss: 0.77785/80.00%, h

p_loss: 2.39508/37.00%, j_loss: 0.71129/81.00%,
fr_loss: 0.34158/66.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.89641
Part 4 - fp_loss: 1.39230/64.00%, bp_loss: 0.97546/74.00%, h
p_loss: 2.63111/33.00%, j_loss: 0.73899/81.00%,
fr_loss: 0.20343/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.72054
Training time elapsed: 38.48 seconds

Train iter 200/802:

Part 1 - fp_loss: 1.37855/58.00%, bp_loss: 1.43410/61.00%, h
p_loss: 3.10567/20.00%, j_loss: 1.14663/73.00%,
fr_loss: 0.16719/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.36503
Part 2 - fp_loss: 1.34451/64.00%, bp_loss: 1.34156/66.00%, h
p_loss: 2.72576/30.00%, j_loss: 1.03617/73.00%,
fr_loss: 0.21843/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.14705
Part 3 - fp_loss: 1.80669/58.00%, bp_loss: 1.12712/74.00%, h
p_loss: 2.42567/36.00%, j_loss: 0.98237/74.00%,
fr_loss: 0.32730/67.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.27885
Part 4 - fp_loss: 1.42943/60.00%, bp_loss: 1.40249/71.00%, h
p_loss: 2.66221/30.00%, j_loss: 0.79359/78.00%,
fr_loss: 0.18803/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.91575
Training time elapsed: 75.89 seconds

Train iter 300/802:

Part 1 - fp_loss: 1.51751/55.00%, bp_loss: 1.34855/61.00%, h
p_loss: 3.04453/22.00%, j_loss: 1.32264/69.00%,
fr_loss: 0.14921/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.54854
Part 2 - fp_loss: 1.44330/61.00%, bp_loss: 1.31015/69.00%, h
p_loss: 2.76933/29.00%, j_loss: 1.00512/74.00%,
fr_loss: 0.20029/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.15091
Part 3 - fp_loss: 1.75214/59.00%, bp_loss: 1.07288/72.00%, h
p_loss: 2.38201/38.00%, j_loss: 0.94244/73.00%,
fr_loss: 0.32469/67.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.17966
Part 4 - fp_loss: 1.36562/64.00%, bp_loss: 0.94427/76.00%, h
p_loss: 2.53860/34.00%, j_loss: 0.65544/82.00%,
fr_loss: 0.17659/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.55970
Training time elapsed: 113.27 seconds

Train iter 400/802:

Part 1 - fp_loss: 1.57437/55.00%, bp_loss: 1.31084/63.00%, h
p_loss: 3.10854/21.00%, j_loss: 1.19380/72.00%,
fr_loss: 0.19845/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.50524
Part 2 - fp_loss: 1.38071/62.00%, bp_loss: 1.23809/68.00%, h

p_loss: 2.74088/29.00%, j_loss: 1.03277/74.00%,
fr_loss: 0.20933/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.12615
Part 3 - fp_loss: 1.95774/54.00%, bp_loss: 1.00234/76.00%, h
p_loss: 2.39872/38.00%, j_loss: 0.92821/77.00%,
fr_loss: 0.35652/64.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.28392
Part 4 - fp_loss: 1.40194/62.00%, bp_loss: 0.93607/76.00%, h
p_loss: 2.64628/31.00%, j_loss: 0.73006/79.00%,
fr_loss: 0.20171/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.70744
Training time elapsed: 150.67 seconds

Train iter 500/802:

Part 1 - fp_loss: 1.54477/55.00%, bp_loss: 1.39028/61.00%, h
p_loss: 3.12857/21.00%, j_loss: 1.21021/71.00%,
fr_loss: 0.17622/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.51446
Part 2 - fp_loss: 1.29902/64.00%, bp_loss: 1.33442/68.00%, h
p_loss: 2.69916/31.00%, j_loss: 0.96143/75.00%,
fr_loss: 0.21179/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.03280
Part 3 - fp_loss: 1.77850/59.00%, bp_loss: 1.15882/73.00%, h
p_loss: 2.38316/37.00%, j_loss: 0.95102/74.00%,
fr_loss: 0.35364/64.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.25651
Part 4 - fp_loss: 1.37665/64.00%, bp_loss: 1.30834/71.00%, h
p_loss: 2.66750/32.00%, j_loss: 0.74862/79.00%,
fr_loss: 0.20128/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.83098
Training time elapsed: 188.08 seconds

Train iter 600/802:

Part 1 - fp_loss: 1.51527/55.00%, bp_loss: 1.48279/60.00%, h
p_loss: 3.05674/22.00%, j_loss: 1.26094/71.00%,
fr_loss: 0.15762/84.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.53806
Part 2 - fp_loss: 1.36039/64.00%, bp_loss: 1.45800/64.00%, h
p_loss: 2.74475/30.00%, j_loss: 1.12965/74.00%,
fr_loss: 0.20837/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.27904
Part 3 - fp_loss: 1.74953/60.00%, bp_loss: 1.15190/71.00%, h
p_loss: 2.37247/38.00%, j_loss: 0.93133/73.00%,
fr_loss: 0.32654/67.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.18995
Part 4 - fp_loss: 1.32943/65.00%, bp_loss: 0.99244/74.00%, h
p_loss: 2.58840/34.00%, j_loss: 0.69713/80.00%,
fr_loss: 0.18933/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.62543
Training time elapsed: 225.49 seconds

Train iter 700/802:

Part 1 - fp_loss: 1.78117/50.00%, bp_loss: 2.54321/45.00%, h

p_loss: 3.07686/21.00%, j_loss: 1.81721/52.00%,
fr_loss: 0.21852/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.61234
Part 2 - fp_loss: 1.45666/61.00%, bp_loss: 1.41709/64.00%, h
p_loss: 2.72568/30.00%, j_loss: 1.15848/72.00%,
fr_loss: 0.22696/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.35660
Part 3 - fp_loss: 1.80446/56.00%, bp_loss: 1.00826/75.00%, h
p_loss: 2.47464/35.00%, j_loss: 0.93042/76.00%,
fr_loss: 0.31321/69.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.19073
Part 4 - fp_loss: 1.34987/64.00%, bp_loss: 1.01472/74.00%, h
p_loss: 2.63556/31.00%, j_loss: 0.76442/80.00%,
fr_loss: 0.18697/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.72142
Training time elapsed: 262.89 seconds

Train iter 800/802:

Part 1 - fp_loss: 2.79493/30.00%, bp_loss: 1.95790/54.00%, h
p_loss: 3.04860/22.00%, j_loss: 2.04149/53.00%,
fr_loss: 0.42523/57.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.36613
Part 2 - fp_loss: 1.36350/63.00%, bp_loss: 1.32081/67.00%, h
p_loss: 2.74274/29.00%, j_loss: 0.98131/76.00%,
fr_loss: 0.20382/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.08594
Part 3 - fp_loss: 1.78527/58.00%, bp_loss: 0.95331/78.00%, h
p_loss: 2.40657/37.00%, j_loss: 0.77683/79.00%,
fr_loss: 0.30053/70.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.97796
Part 4 - fp_loss: 1.39298/63.00%, bp_loss: 1.16581/70.00%, h
p_loss: 2.67168/29.00%, j_loss: 0.84688/78.00%,
fr_loss: 0.19542/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.89004
Training time elapsed: 300.29 seconds

Valid iter 0/160:

Part 1 - fp_loss: 2.77575/34.00%, bp_loss: 1.96659/50.00%, h
p_loss: 3.02702/27.00%, j_loss: 2.12728/50.00%,
fr_loss: 0.37536/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 10.27200
Part 2 - fp_loss: 1.39266/61.00%, bp_loss: 1.54106/59.00%, h
p_loss: 2.53500/40.00%, j_loss: 1.23370/67.00%,
fr_loss: 0.25551/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.95792
Part 3 - fp_loss: 1.57682/63.00%, bp_loss: 1.20244/68.00%, h
p_loss: 1.94401/52.00%, j_loss: 1.08211/71.00%,
fr_loss: 0.39323/60.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.19861
Part 4 - fp_loss: 1.18444/69.00%, bp_loss: 1.66710/59.00%, h
p_loss: 2.13253/47.00%, j_loss: 1.09979/64.00%,
fr_loss: 0.21653/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.30040

```
`Validation time elapsed: 0.75 seconds
`
Valid iter 100/160:
    Part 1 - fp_loss: 2.80119/33.00%, bp_loss: 2.36049/47.00%, h
p_loss: 3.05930/26.00%, j_loss: 2.28914/46.00%,
            fr_loss: 0.41060/59.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 10.92071
    Part 2 - fp_loss: 1.37259/61.00%, bp_loss: 1.51527/66.00%, h
p_loss: 2.59539/42.00%, j_loss: 1.11806/69.00%,
            fr_loss: 0.25058/75.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 6.85189
    Part 3 - fp_loss: 1.61912/63.00%, bp_loss: 1.25864/71.00%, h
p_loss: 2.00392/50.00%, j_loss: 0.94089/71.00%,
            fr_loss: 0.39970/60.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 6.22227
    Part 4 - fp_loss: 1.27936/66.00%, bp_loss: 1.32851/67.00%, h
p_loss: 2.21600/42.00%, j_loss: 0.87951/75.00%,
            fr_loss: 0.24045/76.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 5.94383
`Validation time elapsed: 9.54 seconds
`
```

```
-----
Completed epoch 15.
```

EPOCH 16

```
-----
Train iter 0/802:
    Part 1 - fp_loss: 2.76502/32.00%, bp_loss: 1.70490/58.00%, h
p_loss: 3.02112/25.00%, j_loss: 1.95075/57.00%,
            fr_loss: 0.41662/58.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 5.16769
    Part 2 - fp_loss: 1.44857/58.00%, bp_loss: 1.41371/62.00%, h
p_loss: 2.77074/29.00%, j_loss: 1.20157/67.00%,
            fr_loss: 0.20500/79.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 3.38619
    Part 3 - fp_loss: 1.84892/57.00%, bp_loss: 0.97692/76.00%, h
p_loss: 2.38164/37.00%, j_loss: 0.92536/77.00%,
            fr_loss: 0.31555/68.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 3.17294
    Part 4 - fp_loss: 1.44557/62.00%, bp_loss: 1.30420/66.00%, h
p_loss: 2.63348/32.00%, j_loss: 1.05639/72.00%,
            fr_loss: 0.20450/79.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 3.16499
    Training time elapsed: 1.01 seconds
```

```
Train iter 100/802:
    Part 1 - fp_loss: 2.64091/34.00%, bp_loss: 2.05988/51.00%, h
p_loss: 3.10384/20.00%, j_loss: 1.99098/53.00%,
            fr_loss: 0.43489/56.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 5.29543
    Part 2 - fp_loss: 1.33790/63.00%, bp_loss: 1.34412/66.00%, h
p_loss: 2.69156/31.00%, j_loss: 1.04225/69.00%,
            fr_loss: 0.19468/81.00%, p_loss: 0.00000/100.00%,
```

total weighted loss: 3.11658
Part 3 - fp_loss: 1.80345/58.00%, bp_loss: 1.00256/74.00%, h
p_loss: 2.42491/36.00%, j_loss: 0.93049/76.00%,
fr_loss: 0.30767/69.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.16812
Part 4 - fp_loss: 1.32211/65.00%, bp_loss: 1.03869/73.00%, h
p_loss: 2.64580/32.00%, j_loss: 0.70318/82.00%,
fr_loss: 0.18677/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.65635
Training time elapsed: 38.27 seconds

Train iter 200/802:

Part 1 - fp_loss: 2.41860/42.00%, bp_loss: 1.83013/55.00%, h
p_loss: 3.07864/22.00%, j_loss: 1.75217/57.00%,
fr_loss: 0.46191/53.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.89601
Part 2 - fp_loss: 1.36733/63.00%, bp_loss: 1.25949/69.00%, h
p_loss: 2.72425/30.00%, j_loss: 0.97499/75.00%,
fr_loss: 0.18511/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.03889
Part 3 - fp_loss: 1.73965/59.00%, bp_loss: 1.03425/74.00%, h
p_loss: 2.38524/38.00%, j_loss: 0.89229/74.00%,
fr_loss: 0.30283/69.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.09080
Part 4 - fp_loss: 1.40517/64.00%, bp_loss: 0.98173/74.00%, h
p_loss: 2.69706/30.00%, j_loss: 0.72852/79.00%,
fr_loss: 0.20830/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.74304
Training time elapsed: 75.51 seconds

Train iter 300/802:

Part 1 - fp_loss: 2.31599/44.00%, bp_loss: 1.77028/58.00%, h
p_loss: 3.04325/24.00%, j_loss: 1.61661/59.00%,
fr_loss: 0.46195/53.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.68061
Part 2 - fp_loss: 1.44423/62.00%, bp_loss: 1.49717/65.00%, h
p_loss: 2.77057/29.00%, j_loss: 1.05248/71.00%,
fr_loss: 0.21231/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.26722
Part 3 - fp_loss: 1.73252/61.00%, bp_loss: 1.03358/74.00%, h
p_loss: 2.35062/39.00%, j_loss: 0.85678/74.00%,
fr_loss: 0.31583/68.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.05413
Part 4 - fp_loss: 1.34094/64.00%, bp_loss: 0.94106/76.00%, h
p_loss: 2.57734/33.00%, j_loss: 0.67100/81.00%,
fr_loss: 0.20751/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.60451
Training time elapsed: 112.73 seconds

Train iter 400/802:

Part 1 - fp_loss: 2.38238/41.00%, bp_loss: 1.75624/56.00%, h
p_loss: 3.07778/22.00%, j_loss: 1.68534/59.00%,
fr_loss: 0.42892/57.00%, p_loss: 0.00000/100.00%,

total weighted loss: 4.75565
Part 2 - fp_loss: 1.37011/60.00%, bp_loss: 1.22004/70.00%, h
p_loss: 2.64403/33.00%, j_loss: 0.94661/75.00%,
fr_loss: 0.20278/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.99366
Part 3 - fp_loss: 1.73425/59.00%, bp_loss: 1.14158/71.00%, h
p_loss: 2.39895/37.00%, j_loss: 0.94318/73.00%,
fr_loss: 0.27817/72.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.15063
Part 4 - fp_loss: 1.35862/64.00%, bp_loss: 1.20123/69.00%, h
p_loss: 2.57988/34.00%, j_loss: 0.79798/74.00%,
fr_loss: 0.18503/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.79666
Training time elapsed: 149.94 seconds

Train iter 500/802:

Part 1 - fp_loss: 2.31852/43.00%, bp_loss: 1.70093/56.00%, h
p_loss: 3.04727/23.00%, j_loss: 1.67087/57.00%,
fr_loss: 0.45117/54.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.70576
Part 2 - fp_loss: 1.43710/61.00%, bp_loss: 1.26386/69.00%, h
p_loss: 2.77584/29.00%, j_loss: 1.01606/76.00%,
fr_loss: 0.20853/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.15505
Part 3 - fp_loss: 1.72594/59.00%, bp_loss: 1.07386/74.00%, h
p_loss: 2.43965/36.00%, j_loss: 0.95040/76.00%,
fr_loss: 0.28308/72.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.15049
Part 4 - fp_loss: 1.35948/63.00%, bp_loss: 1.30451/69.00%, h
p_loss: 2.69219/29.00%, j_loss: 0.84231/77.00%,
fr_loss: 0.17483/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.89589
Training time elapsed: 187.14 seconds

Train iter 600/802:

Part 1 - fp_loss: 2.44900/39.00%, bp_loss: 1.60023/59.00%, h
p_loss: 3.02311/23.00%, j_loss: 1.65788/61.00%,
fr_loss: 0.46509/53.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.73447
Part 2 - fp_loss: 1.41112/60.00%, bp_loss: 1.29340/67.00%, h
p_loss: 2.74797/30.00%, j_loss: 1.09213/74.00%,
fr_loss: 0.21162/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.22172
Part 3 - fp_loss: 1.66654/61.00%, bp_loss: 1.04415/74.00%, h
p_loss: 2.40354/36.00%, j_loss: 0.83618/77.00%,
fr_loss: 0.26349/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.96724
Part 4 - fp_loss: 1.31650/65.00%, bp_loss: 1.25383/70.00%, h
p_loss: 2.52666/34.00%, j_loss: 0.78777/78.00%,
fr_loss: 0.20261/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.78277
Training time elapsed: 224.39 seconds

Train iter 700/802:

Part 1 - fp_loss: 2.56664/37.00%, bp_loss: 1.71545/59.00%, h
p_loss: 3.07205/23.00%, j_loss: 1.67648/60.00%,
fr_loss: 0.41826/58.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.81431
Part 2 - fp_loss: 1.34856/63.00%, bp_loss: 1.39946/66.00%, h
p_loss: 2.78313/29.00%, j_loss: 0.99597/72.00%,
fr_loss: 0.20667/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.13170
Part 3 - fp_loss: 1.83293/56.00%, bp_loss: 1.00564/75.00%, h
p_loss: 2.46890/35.00%, j_loss: 0.92883/76.00%,
fr_loss: 0.30302/69.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.19067
Part 4 - fp_loss: 1.42078/61.00%, bp_loss: 1.10406/71.00%, h
p_loss: 2.64277/29.00%, j_loss: 0.82272/79.00%,
fr_loss: 0.16714/83.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.82430
Training time elapsed: 261.61 seconds

Train iter 800/802:

Part 1 - fp_loss: 2.58391/37.00%, bp_loss: 1.77081/59.00%, h
p_loss: 3.14886/21.00%, j_loss: 1.70541/58.00%,
fr_loss: 0.43447/56.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.90774
Part 2 - fp_loss: 1.39157/61.00%, bp_loss: 1.33123/67.00%, h
p_loss: 2.80886/28.00%, j_loss: 1.05371/72.00%,
fr_loss: 0.21990/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.21142
Part 3 - fp_loss: 1.77424/58.00%, bp_loss: 1.00285/76.00%, h
p_loss: 2.39986/38.00%, j_loss: 0.88414/77.00%,
fr_loss: 0.27870/72.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.07078
Part 4 - fp_loss: 1.41287/61.00%, bp_loss: 1.15410/71.00%, h
p_loss: 2.55107/34.00%, j_loss: 0.87169/75.00%,
fr_loss: 0.22754/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.91721
Training time elapsed: 298.86 seconds

Valid iter 0/160:

Part 1 - fp_loss: 2.51546/39.00%, bp_loss: 1.85284/50.00%, h
p_loss: 3.06633/25.00%, j_loss: 2.06146/50.00%,
fr_loss: 0.41821/58.00%, p_loss: 0.00000/100.00%,
total weighted loss: 9.91430
Part 2 - fp_loss: 1.30517/64.00%, bp_loss: 1.76933/57.00%, h
p_loss: 2.61553/40.00%, j_loss: 1.25446/67.00%,
fr_loss: 0.21462/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.15912
Part 3 - fp_loss: 1.66583/58.00%, bp_loss: 1.14152/70.00%, h
p_loss: 1.93590/51.00%, j_loss: 1.09898/72.00%,
fr_loss: 0.39421/60.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.23645
Part 4 - fp_loss: 1.25792/67.00%, bp_loss: 1.75462/54.00%, h
p_loss: 2.17107/44.00%, j_loss: 1.33578/61.00%,

```
fr_loss: 0.23203/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.75142
`Validation time elapsed: 0.77 seconds
`
Valid iter 100/160:
    Part 1 - fp_loss: 2.58880/38.00%, bp_loss: 1.89374/53.00%, h
p_loss: 3.12427/24.00%, j_loss: 1.93867/55.00%,
        fr_loss: 0.43236/56.00%, p_loss: 0.00000/100.00%,
        total weighted loss: 9.97784
    Part 2 - fp_loss: 1.32682/63.00%, bp_loss: 1.53119/65.00%, h
p_loss: 2.53598/43.00%, j_loss: 1.05929/72.00%,
        fr_loss: 0.22732/77.00%, p_loss: 0.00000/100.00%,
        total weighted loss: 6.68060
    Part 3 - fp_loss: 1.41875/66.00%, bp_loss: 1.22319/72.00%, h
p_loss: 1.95774/52.00%, j_loss: 0.88709/76.00%,
        fr_loss: 0.30101/70.00%, p_loss: 0.00000/100.00%,
        total weighted loss: 5.78777
    Part 4 - fp_loss: 1.19430/68.00%, bp_loss: 1.45939/65.00%, h
p_loss: 2.19728/43.00%, j_loss: 0.85120/75.00%,
        fr_loss: 0.22387/77.00%, p_loss: 0.00000/100.00%,
        total weighted loss: 5.92604
`Validation time elapsed: 9.56 seconds
`
-----
Completed epoch 16.
```

EPOCH 17

```
-----
Train iter 0/802:
    Part 1 - fp_loss: 2.62141/35.00%, bp_loss: 1.64681/55.00%, h
p_loss: 3.07287/20.00%, j_loss: 1.84837/55.00%,
        fr_loss: 0.40814/59.00%, p_loss: 0.00000/100.00%,
        total weighted loss: 4.98312
    Part 2 - fp_loss: 1.48823/60.00%, bp_loss: 1.50443/62.00%, h
p_loss: 2.76385/28.00%, j_loss: 1.13908/69.00%,
        fr_loss: 0.22105/78.00%, p_loss: 0.00000/100.00%,
        total weighted loss: 3.38473
    Part 3 - fp_loss: 2.04792/49.00%, bp_loss: 0.88865/77.00%, h
p_loss: 2.49547/33.00%, j_loss: 0.98631/74.00%,
        fr_loss: 0.34170/66.00%, p_loss: 0.00000/100.00%,
        total weighted loss: 3.36720
    Part 4 - fp_loss: 1.43750/62.00%, bp_loss: 1.42576/64.00%, h
p_loss: 2.60663/32.00%, j_loss: 1.16303/68.00%,
        fr_loss: 0.19820/80.00%, p_loss: 0.00000/100.00%,
        total weighted loss: 3.28970
    Training time elapsed: 1.11 seconds
```

```
Train iter 100/802:
    Part 1 - fp_loss: 2.59170/37.00%, bp_loss: 1.76411/56.00%, h
p_loss: 3.11269/22.00%, j_loss: 1.82879/58.00%,
        fr_loss: 0.39391/61.00%, p_loss: 0.00000/100.00%,
        total weighted loss: 4.98159
    Part 2 - fp_loss: 1.33205/63.00%, bp_loss: 1.38285/65.00%, h
```

p_loss: 2.70692/33.00%, j_loss: 1.07690/72.00%,
fr_loss: 0.22420/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.19406
Part 3 - fp_loss: 1.69223/60.00%, bp_loss: 0.97784/76.00%, h
p_loss: 2.33444/40.00%, j_loss: 0.90596/76.00%,
fr_loss: 0.29319/70.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.03895
Part 4 - fp_loss: 1.42233/63.00%, bp_loss: 1.32480/69.00%, h
p_loss: 2.62869/34.00%, j_loss: 0.86955/75.00%,
fr_loss: 0.18355/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.95032
Training time elapsed: 37.59 seconds

Train iter 200/802:

Part 1 - fp_loss: 2.41436/43.00%, bp_loss: 1.63387/57.00%, h
p_loss: 3.10893/20.00%, j_loss: 1.57341/64.00%,
fr_loss: 0.36994/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.57336
Part 2 - fp_loss: 1.35146/63.00%, bp_loss: 1.42270/67.00%, h
p_loss: 2.65832/32.00%, j_loss: 1.03433/73.00%,
fr_loss: 0.18864/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.12300
Part 3 - fp_loss: 1.79100/58.00%, bp_loss: 0.93823/76.00%, h
p_loss: 2.45633/37.00%, j_loss: 0.88013/75.00%,
fr_loss: 0.30724/69.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.10124
Part 4 - fp_loss: 1.40348/62.00%, bp_loss: 1.18318/71.00%, h
p_loss: 2.68203/31.00%, j_loss: 0.85555/77.00%,
fr_loss: 0.19744/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.91429
Training time elapsed: 74.01 seconds

Train iter 300/802:

Part 1 - fp_loss: 2.37828/41.00%, bp_loss: 1.58900/61.00%, h
p_loss: 3.06287/22.00%, j_loss: 1.53933/63.00%,
fr_loss: 0.35658/64.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.48060
Part 2 - fp_loss: 1.31241/63.00%, bp_loss: 1.24443/69.00%, h
p_loss: 2.70137/31.00%, j_loss: 0.97799/72.00%,
fr_loss: 0.21486/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.03280
Part 3 - fp_loss: 1.73032/59.00%, bp_loss: 1.09160/75.00%, h
p_loss: 2.46164/37.00%, j_loss: 0.88420/76.00%,
fr_loss: 0.27443/72.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.08976
Part 4 - fp_loss: 1.39842/62.00%, bp_loss: 1.22846/71.00%, h
p_loss: 2.65627/32.00%, j_loss: 0.85030/79.00%,
fr_loss: 0.18300/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.89793
Training time elapsed: 110.44 seconds

Train iter 400/802:

Part 1 - fp_loss: 2.64667/36.00%, bp_loss: 1.51400/60.00%, h

p_loss: 3.07645/23.00%, j_loss: 1.73335/59.00%,
fr_loss: 0.43035/56.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.86418
Part 2 - fp_loss: 1.35606/63.00%, bp_loss: 1.32070/68.00%, h
p_loss: 2.76559/28.00%, j_loss: 0.97635/76.00%,
fr_loss: 0.20140/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.08167
Part 3 - fp_loss: 1.77335/58.00%, bp_loss: 0.93024/76.00%, h
p_loss: 2.52181/34.00%, j_loss: 0.86548/77.00%,
fr_loss: 0.26050/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.04827
Part 4 - fp_loss: 1.34834/63.00%, bp_loss: 1.14868/72.00%, h
p_loss: 2.59751/31.00%, j_loss: 0.75451/81.00%,
fr_loss: 0.19722/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.74976
Training time elapsed: 146.85 seconds

Train iter 500/802:

Part 1 - fp_loss: 2.45701/37.00%, bp_loss: 1.79859/57.00%, h
p_loss: 3.14965/19.00%, j_loss: 1.74087/57.00%,
fr_loss: 0.37500/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.82884
Part 2 - fp_loss: 1.39708/62.00%, bp_loss: 1.27788/66.00%, h
p_loss: 2.73859/29.00%, j_loss: 1.04836/75.00%,
fr_loss: 0.20645/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.15830
Part 3 - fp_loss: 1.60971/62.00%, bp_loss: 0.97324/77.00%, h
p_loss: 2.40700/37.00%, j_loss: 0.77777/80.00%,
fr_loss: 0.25540/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.85209
Part 4 - fp_loss: 1.37279/64.00%, bp_loss: 1.15900/72.00%, h
p_loss: 2.56065/33.00%, j_loss: 0.74972/78.00%,
fr_loss: 0.19446/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.74647
Training time elapsed: 183.33 seconds

Train iter 600/802:

Part 1 - fp_loss: 2.42769/39.00%, bp_loss: 1.55305/60.00%, h
p_loss: 3.03062/22.00%, j_loss: 1.57507/62.00%,
fr_loss: 0.38806/61.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.55207
Part 2 - fp_loss: 1.32854/63.00%, bp_loss: 1.16671/70.00%, h
p_loss: 2.70687/31.00%, j_loss: 0.90656/76.00%,
fr_loss: 0.21952/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.95242
Part 3 - fp_loss: 1.62974/62.00%, bp_loss: 0.87882/79.00%, h
p_loss: 2.36102/39.00%, j_loss: 0.74456/79.00%,
fr_loss: 0.26237/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.79375
Part 4 - fp_loss: 1.32265/65.00%, bp_loss: 1.08465/73.00%, h
p_loss: 2.57644/33.00%, j_loss: 0.72507/80.00%,
fr_loss: 0.19948/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.68420

Training time elapsed: 219.82 seconds

Train iter 700/802:

Part 1 - fp_loss: 2.38748/41.00%, bp_loss: 1.62443/58.00%, h
p_loss: 3.07331/22.00%, j_loss: 1.61295/60.00%,
fr_loss: 0.39272/60.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.60874

Part 2 - fp_loss: 1.32087/65.00%, bp_loss: 1.20855/70.00%, h
p_loss: 2.70475/31.00%, j_loss: 0.95233/74.00%,
fr_loss: 0.21804/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.00479

Part 3 - fp_loss: 1.65198/63.00%, bp_loss: 0.96169/75.00%, h
p_loss: 2.48267/36.00%, j_loss: 0.82656/78.00%,
fr_loss: 0.26761/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.95347

Part 4 - fp_loss: 1.40005/62.00%, bp_loss: 1.30477/70.00%, h
p_loss: 2.63755/32.00%, j_loss: 0.82778/76.00%,
fr_loss: 0.20683/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.91733

Training time elapsed: 256.26 seconds

Train iter 800/802:

Part 1 - fp_loss: 2.37094/42.00%, bp_loss: 1.69395/60.00%, h
p_loss: 3.13544/20.00%, j_loss: 1.55559/62.00%,
fr_loss: 0.37971/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.56958

Part 2 - fp_loss: 1.39556/63.00%, bp_loss: 1.30176/69.00%, h
p_loss: 2.72759/31.00%, j_loss: 0.98105/75.00%,
fr_loss: 0.19503/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.08266

Part 3 - fp_loss: 1.64255/61.00%, bp_loss: 1.34016/67.00%, h
p_loss: 2.40776/37.00%, j_loss: 1.08712/71.00%,
fr_loss: 0.23441/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.26717

Part 4 - fp_loss: 1.39966/61.00%, bp_loss: 1.25201/70.00%, h
p_loss: 2.62834/33.00%, j_loss: 0.83122/79.00%,
fr_loss: 0.17688/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.87204

Training time elapsed: 292.64 seconds

Valid iter 0/160:

Part 1 - fp_loss: 2.33744/42.00%, bp_loss: 1.81532/51.00%, h
p_loss: 2.98457/29.00%, j_loss: 1.92386/52.00%,
fr_loss: 0.33973/66.00%, p_loss: 0.00000/100.00%,
total weighted loss: 9.40092

Part 2 - fp_loss: 1.44501/58.00%, bp_loss: 1.44087/61.00%, h
p_loss: 2.65689/39.00%, j_loss: 1.25600/67.00%,
fr_loss: 0.25830/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 7.05708

Part 3 - fp_loss: 1.45327/63.00%, bp_loss: 1.24039/67.00%, h
p_loss: 1.95254/51.00%, j_loss: 1.15848/69.00%,
fr_loss: 0.32340/67.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.12809

Part 4 - fp_loss: 1.19385/68.00%, bp_loss: 1.56369/60.00%, h
p_loss: 2.19982/44.00%, j_loss: 1.09056/69.00%,
fr_loss: 0.23889/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.28682
`Validation time elapsed: 0.75 seconds
`

Valid iter 100/160:

Part 1 - fp_loss: 2.18427/46.00%, bp_loss: 1.98642/49.00%, h
p_loss: 3.09665/25.00%, j_loss: 1.87792/54.00%,
fr_loss: 0.37477/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 9.52003

Part 2 - fp_loss: 1.38022/60.00%, bp_loss: 1.59016/64.00%, h
p_loss: 2.57756/41.00%, j_loss: 1.15686/70.00%,
fr_loss: 0.23815/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.94295

Part 3 - fp_loss: 1.45909/65.00%, bp_loss: 1.29641/68.00%, h
p_loss: 1.97744/52.00%, j_loss: 1.05300/73.00%,
fr_loss: 0.29391/70.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.07986

Part 4 - fp_loss: 1.20931/67.00%, bp_loss: 1.36815/67.00%, h
p_loss: 2.19832/45.00%, j_loss: 0.80678/79.00%,
fr_loss: 0.22498/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.80754

`Validation time elapsed: 9.55 seconds
`

Completed epoch 17.

EPOCH 18

Train iter 0/802:

Part 1 - fp_loss: 2.29179/45.00%, bp_loss: 1.53356/59.00%, h
p_loss: 3.03044/23.00%, j_loss: 1.60373/63.00%,
fr_loss: 0.40113/59.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.51995

Part 2 - fp_loss: 1.33347/64.00%, bp_loss: 1.29284/64.00%, h
p_loss: 2.75768/29.00%, j_loss: 1.11805/74.00%,
fr_loss: 0.20035/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.20029

Part 3 - fp_loss: 1.69585/60.00%, bp_loss: 0.96529/75.00%, h
p_loss: 2.33628/38.00%, j_loss: 0.96383/74.00%,
fr_loss: 0.28105/72.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.08327

Part 4 - fp_loss: 1.35674/63.00%, bp_loss: 1.22289/68.00%, h
p_loss: 2.49310/37.00%, j_loss: 0.96704/73.00%,
fr_loss: 0.19359/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.95381

Training time elapsed: 1.10 seconds

Train iter 100/802:

Part 1 - fp_loss: 2.28122/42.00%, bp_loss: 1.61613/60.00%, h
p_loss: 3.12658/21.00%, j_loss: 1.59041/62.00%,
fr_loss: 0.37730/62.00%, p_loss: 0.00000/100.00%,

total weighted loss: 4.53113
Part 2 - fp_loss: 1.29801/64.00%, bp_loss: 1.27017/69.00%, h
p_loss: 2.71967/32.00%, j_loss: 0.96843/75.00%,
fr_loss: 0.20857/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.02296
Part 3 - fp_loss: 1.61385/61.00%, bp_loss: 1.26738/73.00%, h
p_loss: 2.40307/37.00%, j_loss: 0.90290/73.00%,
fr_loss: 0.25088/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.06183
Part 4 - fp_loss: 1.23261/67.00%, bp_loss: 1.26617/69.00%, h
p_loss: 2.57597/33.00%, j_loss: 0.80807/76.00%,
fr_loss: 0.18707/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.76409
Training time elapsed: 38.58 seconds

Train iter 200/802:

Part 1 - fp_loss: 2.16185/45.00%, bp_loss: 1.47883/61.00%, h
p_loss: 3.06108/22.00%, j_loss: 1.44207/64.00%,
fr_loss: 0.37696/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.26194
Part 2 - fp_loss: 1.29387/64.00%, bp_loss: 1.32697/67.00%, h
p_loss: 2.75266/29.00%, j_loss: 0.94604/77.00%,
fr_loss: 0.20558/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.02244
Part 3 - fp_loss: 1.66869/59.00%, bp_loss: 1.04948/75.00%, h
p_loss: 2.41386/37.00%, j_loss: 0.89912/77.00%,
fr_loss: 0.26451/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.03698
Part 4 - fp_loss: 1.26029/66.00%, bp_loss: 1.06206/74.00%, h
p_loss: 2.60486/33.00%, j_loss: 0.72018/82.00%,
fr_loss: 0.19401/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.64441
Training time elapsed: 75.98 seconds

Train iter 300/802:

Part 1 - fp_loss: 2.36053/43.00%, bp_loss: 1.60297/58.00%, h
p_loss: 3.10789/21.00%, j_loss: 1.61502/61.00%,
fr_loss: 0.38030/61.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.58884
Part 2 - fp_loss: 1.29545/65.00%, bp_loss: 1.17367/71.00%, h
p_loss: 2.73499/31.00%, j_loss: 0.81762/80.00%,
fr_loss: 0.20591/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.84385
Part 3 - fp_loss: 1.61254/60.00%, bp_loss: 0.99821/76.00%, h
p_loss: 2.36468/37.00%, j_loss: 0.86366/77.00%,
fr_loss: 0.25316/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.93196
Part 4 - fp_loss: 1.32728/64.00%, bp_loss: 1.15563/71.00%, h
p_loss: 2.57110/34.00%, j_loss: 0.76540/81.00%,
fr_loss: 0.19661/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.74367
Training time elapsed: 113.39 seconds

Train iter 400/802:

Part 1 - fp_loss: 2.32058/42.00%, bp_loss: 1.50726/61.00%, h
p_loss: 3.07958/22.00%, j_loss: 1.52709/62.00%,
fr_loss: 0.37795/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.44137
Part 2 - fp_loss: 1.28334/63.00%, bp_loss: 1.29672/67.00%, h
p_loss: 2.74781/29.00%, j_loss: 0.95339/76.00%,
fr_loss: 0.19237/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.00079
Part 3 - fp_loss: 1.57841/61.00%, bp_loss: 0.87866/78.00%, h
p_loss: 2.37318/38.00%, j_loss: 0.78142/78.00%,
fr_loss: 0.26645/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.81263
Part 4 - fp_loss: 1.26248/66.00%, bp_loss: 1.36848/69.00%, h
p_loss: 2.63068/32.00%, j_loss: 0.79670/78.00%,
fr_loss: 0.18550/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.81319
Training time elapsed: 150.79 seconds

Train iter 500/802:

Part 1 - fp_loss: 2.24975/44.00%, bp_loss: 1.63620/57.00%, h
p_loss: 3.06987/21.00%, j_loss: 1.61187/62.00%,
fr_loss: 0.38721/61.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.53578
Part 2 - fp_loss: 1.27792/64.00%, bp_loss: 1.27559/68.00%, h
p_loss: 2.77009/30.00%, j_loss: 0.95371/77.00%,
fr_loss: 0.21300/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.01938
Part 3 - fp_loss: 1.65484/60.00%, bp_loss: 0.93620/76.00%, h
p_loss: 2.41946/39.00%, j_loss: 0.80579/79.00%,
fr_loss: 0.25299/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.89290
Part 4 - fp_loss: 1.32247/65.00%, bp_loss: 1.15542/72.00%, h
p_loss: 2.57392/35.00%, j_loss: 0.78409/80.00%,
fr_loss: 0.19825/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.76238
Training time elapsed: 188.19 seconds

Train iter 600/802:

Part 1 - fp_loss: 2.31650/42.00%, bp_loss: 1.62833/58.00%, h
p_loss: 3.10203/21.00%, j_loss: 1.54177/62.00%,
fr_loss: 0.39730/60.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.51643
Part 2 - fp_loss: 1.31192/65.00%, bp_loss: 1.25888/68.00%, h
p_loss: 2.72463/29.00%, j_loss: 0.99106/75.00%,
fr_loss: 0.23271/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.07478
Part 3 - fp_loss: 1.58764/62.00%, bp_loss: 0.87087/78.00%, h
p_loss: 2.44993/35.00%, j_loss: 0.78719/78.00%,
fr_loss: 0.25353/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.83077
Part 4 - fp_loss: 1.35695/63.00%, bp_loss: 1.16603/70.00%, h
p_loss: 2.70343/30.00%, j_loss: 0.80722/80.00%,

fr_loss: 0.18840/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.83492
Training time elapsed: 225.59 seconds

Train iter 700/802:

Part 1 - fp_loss: 2.19506/45.00%, bp_loss: 1.75442/54.00%, h
p_loss: 3.09883/23.00%, j_loss: 1.65243/57.00%,
fr_loss: 0.38745/61.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.59338

Part 2 - fp_loss: 1.26793/64.00%, bp_loss: 1.24303/68.00%, h
p_loss: 2.72418/30.00%, j_loss: 0.93466/77.00%,
fr_loss: 0.20759/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.96638

Part 3 - fp_loss: 1.67645/60.00%, bp_loss: 0.82864/79.00%, h
p_loss: 2.40579/34.00%, j_loss: 0.83502/79.00%,
fr_loss: 0.27240/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.91597

Part 4 - fp_loss: 1.45882/61.00%, bp_loss: 1.07962/74.00%, h
p_loss: 2.61020/33.00%, j_loss: 0.79229/79.00%,
fr_loss: 0.22125/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.84990

Training time elapsed: 262.96 seconds

Train iter 800/802:

Part 1 - fp_loss: 2.09877/46.00%, bp_loss: 1.58544/59.00%, h
p_loss: 3.07546/21.00%, j_loss: 1.37498/66.00%,
fr_loss: 0.39040/61.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.21303

Part 2 - fp_loss: 1.30331/63.00%, bp_loss: 1.34107/66.00%, h
p_loss: 2.72252/29.00%, j_loss: 1.01207/73.00%,
fr_loss: 0.20719/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.08999

Part 3 - fp_loss: 1.66251/60.00%, bp_loss: 0.83310/79.00%, h
p_loss: 2.37684/37.00%, j_loss: 0.76668/78.00%,
fr_loss: 0.25189/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.81280

Part 4 - fp_loss: 1.29231/65.00%, bp_loss: 1.16884/71.00%, h
p_loss: 2.57824/33.00%, j_loss: 0.78848/79.00%,
fr_loss: 0.18940/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.74816

Training time elapsed: 300.30 seconds

Valid iter 0/160:

Part 1 - fp_loss: 2.29240/41.00%, bp_loss: 1.67411/56.00%, h
p_loss: 3.02723/28.00%, j_loss: 1.82776/55.00%,
fr_loss: 0.36116/63.00%, p_loss: 0.00000/100.00%,
total weighted loss: 9.18267

Part 2 - fp_loss: 1.37547/61.00%, bp_loss: 1.45838/59.00%, h
p_loss: 2.56812/42.00%, j_loss: 1.28338/63.00%,
fr_loss: 0.26185/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.94720

Part 3 - fp_loss: 1.47732/63.00%, bp_loss: 1.09517/72.00%, h
p_loss: 1.92915/52.00%, j_loss: 0.99533/73.00%,

```
fr_loss: 0.29946/70.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.79643
Part 4 - fp_loss: 1.33724/65.00%, bp_loss: 1.66505/58.00%, h
p_loss: 2.23189/46.00%, j_loss: 1.18135/66.00%,
fr_loss: 0.23805/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.65358
`Validation time elapsed: 0.76 seconds
`
```

Valid iter 100/160:

```
Part 1 - fp_loss: 2.24403/44.00%, bp_loss: 2.09952/51.00%, h
p_loss: 3.08403/26.00%, j_loss: 1.87522/55.00%,
fr_loss: 0.36634/63.00%, p_loss: 0.00000/100.00%,
total weighted loss: 9.66914
Part 2 - fp_loss: 1.32572/62.00%, bp_loss: 1.65777/61.00%, h
p_loss: 2.53422/42.00%, j_loss: 1.11778/69.00%,
fr_loss: 0.23951/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.87499
Part 3 - fp_loss: 1.38801/68.00%, bp_loss: 1.12724/74.00%, h
p_loss: 1.97594/51.00%, j_loss: 0.78563/79.00%,
fr_loss: 0.27353/73.00%, p_loss: 0.00000/100.00%,
total weighted loss: 5.55036
Part 4 - fp_loss: 1.21588/68.00%, bp_loss: 1.53713/66.00%, h
p_loss: 2.23401/43.00%, j_loss: 0.86080/74.00%,
fr_loss: 0.22857/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.07639
`Validation time elapsed: 9.55 seconds
`
```

Completed epoch 18.

EPOCH 19

Train iter 0/802:

```
Part 1 - fp_loss: 2.48404/38.00%, bp_loss: 1.53000/60.00%, h
p_loss: 3.09943/20.00%, j_loss: 1.71097/59.00%,
fr_loss: 0.36991/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.71173
Part 2 - fp_loss: 1.41625/62.00%, bp_loss: 1.32924/61.00%, h
p_loss: 2.76896/27.00%, j_loss: 1.24222/66.00%,
fr_loss: 0.19705/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.37686
Part 3 - fp_loss: 1.74781/58.00%, bp_loss: 0.77707/79.00%, h
p_loss: 2.51160/34.00%, j_loss: 0.77097/79.00%,
fr_loss: 0.26003/74.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.89151
Part 4 - fp_loss: 1.44591/61.00%, bp_loss: 1.35216/65.00%, h
p_loss: 2.61688/33.00%, j_loss: 1.00846/74.00%,
fr_loss: 0.19257/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.11469
Training time elapsed: 1.08 seconds
```

Train iter 100/802:

```
Part 1 - fp_loss: 2.14945/45.00%, bp_loss: 1.51504/61.00%, h
```

p_loss: 3.12206/21.00%, j_loss: 1.44651/66.00%,
fr_loss: 0.37111/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.28348
Part 2 - fp_loss: 1.33560/63.00%, bp_loss: 1.31888/67.00%, h
p_loss: 2.71055/31.00%, j_loss: 0.99994/75.00%,
fr_loss: 0.21546/78.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.09204
Part 3 - fp_loss: 1.60965/60.00%, bp_loss: 0.92174/75.00%, h
p_loss: 2.34958/38.00%, j_loss: 0.83922/75.00%,
fr_loss: 0.23707/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.86251
Part 4 - fp_loss: 1.27714/66.00%, bp_loss: 1.11593/72.00%, h
p_loss: 2.56031/35.00%, j_loss: 0.74341/79.00%,
fr_loss: 0.18482/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.66968
Training time elapsed: 38.51 seconds

Train iter 200/802:

Part 1 - fp_loss: 2.19909/45.00%, bp_loss: 1.56288/59.00%, h
p_loss: 3.06700/21.00%, j_loss: 1.48055/64.00%,
fr_loss: 0.33797/66.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.30703
Part 2 - fp_loss: 1.24949/65.00%, bp_loss: 1.23050/70.00%, h
p_loss: 2.71316/31.00%, j_loss: 0.88146/77.00%,
fr_loss: 0.19713/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.88643
Part 3 - fp_loss: 1.50194/63.00%, bp_loss: 0.86656/78.00%, h
p_loss: 2.42404/38.00%, j_loss: 0.82571/79.00%,
fr_loss: 0.23271/77.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.79657
Part 4 - fp_loss: 1.27320/66.00%, bp_loss: 1.11367/72.00%, h
p_loss: 2.64551/33.00%, j_loss: 0.78703/80.00%,
fr_loss: 0.20272/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.75410
Training time elapsed: 75.90 seconds

Train iter 300/802:

Part 1 - fp_loss: 2.23095/44.00%, bp_loss: 1.59545/58.00%, h
p_loss: 3.10083/22.00%, j_loss: 1.56945/61.00%,
fr_loss: 0.36310/63.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.45691
Part 2 - fp_loss: 1.27179/63.00%, bp_loss: 1.28187/68.00%, h
p_loss: 2.65656/31.00%, j_loss: 0.93678/76.00%,
fr_loss: 0.20646/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.96066
Part 3 - fp_loss: 1.61006/59.00%, bp_loss: 0.78399/79.00%, h
p_loss: 2.36985/39.00%, j_loss: 0.79153/78.00%,
fr_loss: 0.24961/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.79233
Part 4 - fp_loss: 1.26892/67.00%, bp_loss: 1.20001/69.00%, h
p_loss: 2.58309/33.00%, j_loss: 0.86838/79.00%,
fr_loss: 0.18516/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.82293

Training time elapsed: 113.27 seconds

Train iter 400/802:

Part 1 - fp_loss: 2.47641/36.00%, bp_loss: 1.57760/61.00%, h
p_loss: 3.07747/21.00%, j_loss: 1.63965/61.00%,
fr_loss: 0.38040/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.65478

Part 2 - fp_loss: 1.27358/66.00%, bp_loss: 1.23582/69.00%, h
p_loss: 2.66664/32.00%, j_loss: 0.86996/76.00%,
fr_loss: 0.19141/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.86889

Part 3 - fp_loss: 1.64918/60.00%, bp_loss: 1.07497/72.00%, h
p_loss: 2.42362/37.00%, j_loss: 0.97782/73.00%,
fr_loss: 0.25104/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.10303

Part 4 - fp_loss: 1.27634/66.00%, bp_loss: 1.09467/72.00%, h
p_loss: 2.61212/33.00%, j_loss: 0.72036/81.00%,
fr_loss: 0.17732/82.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.64789

Training time elapsed: 150.66 seconds

Train iter 500/802:

Part 1 - fp_loss: 2.25911/42.00%, bp_loss: 1.50322/60.00%, h
p_loss: 3.03760/24.00%, j_loss: 1.54600/61.00%,
fr_loss: 0.37483/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.41263

Part 2 - fp_loss: 1.26251/65.00%, bp_loss: 1.31876/66.00%, h
p_loss: 2.70773/30.00%, j_loss: 0.94266/76.00%,
fr_loss: 0.18573/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.96760

Part 3 - fp_loss: 1.53425/62.00%, bp_loss: 1.00221/75.00%, h
p_loss: 2.36202/39.00%, j_loss: 0.85584/76.00%,
fr_loss: 0.23534/76.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.86757

Part 4 - fp_loss: 1.34909/63.00%, bp_loss: 1.14081/71.00%, h
p_loss: 2.58051/34.00%, j_loss: 0.86443/76.00%,
fr_loss: 0.19537/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.85074

Training time elapsed: 188.03 seconds

Train iter 600/802:

Part 1 - fp_loss: 2.28683/44.00%, bp_loss: 1.50883/60.00%, h
p_loss: 3.11158/19.00%, j_loss: 1.44424/65.00%,
fr_loss: 0.39033/61.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.36411

Part 2 - fp_loss: 1.26939/64.00%, bp_loss: 2.04705/59.00%, h
p_loss: 2.65434/33.00%, j_loss: 1.18920/66.00%,
fr_loss: 0.21000/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.44431

Part 3 - fp_loss: 1.62098/61.00%, bp_loss: 0.88456/77.00%, h
p_loss: 2.36422/38.00%, j_loss: 0.78234/79.00%,
fr_loss: 0.25097/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.81843

Part 4 - fp_loss: 1.35901/63.00%, bp_loss: 1.19032/73.00%, h
p_loss: 2.59440/33.00%, j_loss: 0.73129/80.00%,
fr_loss: 0.18146/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.72768
Training time elapsed: 225.42 seconds

Train iter 700/802:

Part 1 - fp_loss: 2.16068/46.00%, bp_loss: 2.00310/54.00%, h
p_loss: 3.00899/24.00%, j_loss: 1.63615/59.00%,
fr_loss: 0.37624/62.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.59636
Part 2 - fp_loss: 1.37864/61.00%, bp_loss: 1.28788/68.00%, h
p_loss: 2.74365/31.00%, j_loss: 1.00605/73.00%,
fr_loss: 0.19397/80.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.09879
Part 3 - fp_loss: 1.63715/61.00%, bp_loss: 0.98357/73.00%, h
p_loss: 2.50347/35.00%, j_loss: 0.90779/76.00%,
fr_loss: 0.24072/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.01320
Part 4 - fp_loss: 1.29206/64.00%, bp_loss: 1.09513/73.00%, h
p_loss: 2.64718/30.00%, j_loss: 0.72957/79.00%,
fr_loss: 0.18767/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.68597
Training time elapsed: 262.83 seconds

Train iter 800/802:

Part 1 - fp_loss: 2.38204/41.00%, bp_loss: 1.66791/57.00%, h
p_loss: 3.10858/21.00%, j_loss: 1.65285/59.00%,
fr_loss: 0.36362/63.00%, p_loss: 0.00000/100.00%,
total weighted loss: 4.64043
Part 2 - fp_loss: 1.33654/63.00%, bp_loss: 1.24873/69.00%, h
p_loss: 2.73049/30.00%, j_loss: 0.97623/75.00%,
fr_loss: 0.20572/79.00%, p_loss: 0.00000/100.00%,
total weighted loss: 3.04398
Part 3 - fp_loss: 1.49185/62.00%, bp_loss: 0.90226/77.00%, h
p_loss: 2.42143/37.00%, j_loss: 0.75883/79.00%,
fr_loss: 0.24984/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.75169
Part 4 - fp_loss: 1.33483/63.00%, bp_loss: 1.03015/74.00%, h
p_loss: 2.63680/32.00%, j_loss: 0.74148/81.00%,
fr_loss: 0.18727/81.00%, p_loss: 0.00000/100.00%,
total weighted loss: 2.69624
Training time elapsed: 300.20 seconds

Valid iter 0/160:

Part 1 - fp_loss: 2.44609/37.00%, bp_loss: 1.75767/52.00%, h
p_loss: 3.05166/27.00%, j_loss: 1.96276/51.00%,
fr_loss: 0.36116/64.00%, p_loss: 0.00000/100.00%,
total weighted loss: 9.57934
Part 2 - fp_loss: 1.30756/61.00%, bp_loss: 1.44198/62.00%, h
p_loss: 2.54366/42.00%, j_loss: 1.22799/67.00%,
fr_loss: 0.24043/75.00%, p_loss: 0.00000/100.00%,
total weighted loss: 6.76161

```

        Part 3 - fp_loss: 1.33556/68.00%, bp_loss: 1.07539/70.00%, h
p_loss: 1.91383/52.00%, j_loss: 0.96420/73.00%,
            fr_loss: 0.27103/73.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 5.56002
        Part 4 - fp_loss: 1.17342/68.00%, bp_loss: 1.49325/60.00%, h
p_loss: 2.20160/44.00%, j_loss: 1.09823/71.00%,
            fr_loss: 0.22159/77.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 6.18810
    `Validation time elapsed: 0.77 seconds
    `
Valid iter 100/160:
    Part 1 - fp_loss: 2.25751/44.00%, bp_loss: 2.05885/52.00%, h
p_loss: 3.02399/28.00%, j_loss: 1.80986/51.00%,
            fr_loss: 0.36989/62.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 9.52010
    Part 2 - fp_loss: 1.40102/61.00%, bp_loss: 1.56217/62.00%, h
p_loss: 2.56231/41.00%, j_loss: 1.17272/70.00%,
            fr_loss: 0.23341/77.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 6.93164
    Part 3 - fp_loss: 1.37041/67.00%, bp_loss: 1.19071/71.00%, h
p_loss: 1.96478/50.00%, j_loss: 0.83044/75.00%,
            fr_loss: 0.26706/72.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 5.62341
    Part 4 - fp_loss: 1.08928/70.00%, bp_loss: 1.36720/69.00%, h
p_loss: 2.26374/43.00%, j_loss: 0.70654/80.00%,
            fr_loss: 0.21932/78.00%, p_loss: 0.00000/100.00%,
            total weighted loss: 5.64607
    `Validation time elapsed: 9.54 seconds
    `
-----
Completed epoch 19.

Training completed! Saving files.

```

```

In [10]: # LOAD SAVED STATS

stats_file_path = OUTPUT_PATH + "/12-09_21-52-24_C1F0E8.stat"

with open(stats_file_path, "rb") as file:
    saved_stats = pickle.load(file)

train_stats, val_stats = saved_stats

```

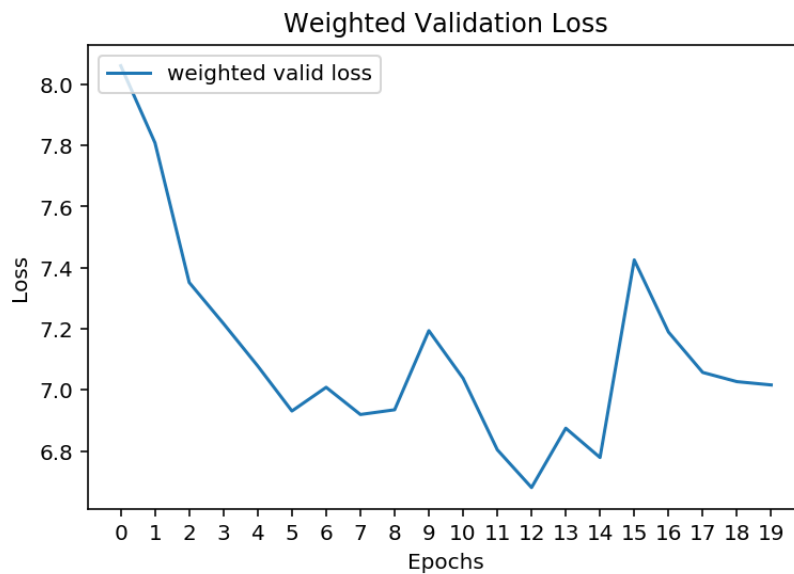
```
In [33]: # GRAPH WEIGHTED LOSSES

val_weighted_losses = np.array([ S['losses'] for S in val_stats]).mean(
    axis=1)

plt.subplot(111)

plt.plot(val_weighted_losses)
plt.xticks(range(len(val_weighted_losses)))

plt.title("Weighted Validation Loss")
plt.xlabel('Epochs')
plt.ylabel('Loss')
plt.legend(["weighted valid loss"], loc="upper left")
plt.show()
```



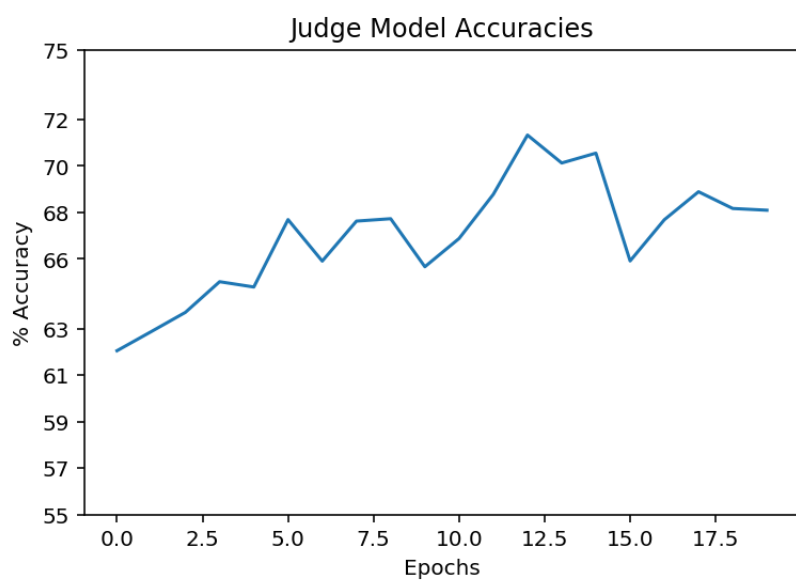
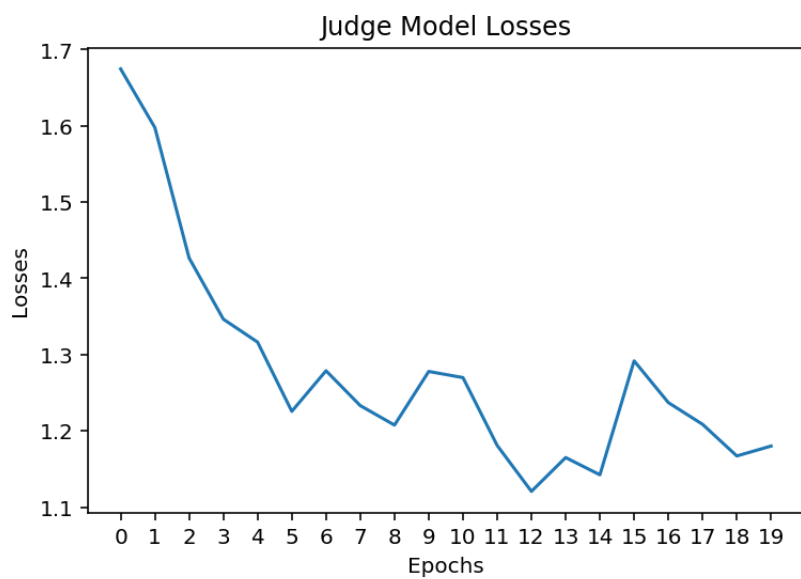

```
In [43]: val_judge_losses = np.array([ S['j_losses'] for S in val_stats]).mean(
axis=1)
val_judge_accs = np.array([ S['j_accs'] for S in val_stats]).mean(axis
=1)

plt.plot(val_judge_losses)
plt.xticks(range(len(val_judge_losses)))
plt.title("Judge Model Losses")
plt.xlabel('Epochs')
plt.ylabel('Losses')

plt.show()

plt.plot(val_judge_accs)
plt.yticks(np.linspace(55, 75, 10, dtype="int8"))
plt.title("Judge Model Accuracies")
plt.xlabel('Epochs')
plt.ylabel('% Accuracy')

plt.show()
```



```
In [7]: # SAMPLING
```

```
if not "models" in vars() or models is None or len(models) < 2:
    mkdir(OUTPUT_PATH)
    # file location, update to point to the correct file
    MODELS_FILE_PATH = OUTPUT_PATH + "/12-09_21-52-24_7D4325.models"
    # which epoch's models to use
    NTH_EPOCH = 12

    with open(MODELS_FILE_PATH, "rb") as file:
        saved_models = pickle.load(file)
        models = saved_models[NTH_EPOCH]

# how many ticks to sample, 16 ticks ~ 1 measure of music
NUM_TICKS_TO_SAMPLE = 512
# number of iterations to repeat the sampling process, one iteration
# will run for NUM_PARTS * NUM_TICKS_TO_SAMPLE times.
NUM_REPEATS = 1000

output = sample(models,
                 num_parts=NUM_PARTS,
                 num_ticks=NUM_TICKS_TO_SAMPLE,
                 num_dims=PITCH_VOCAB_SIZE,
                 seq_len=SEQ_LEN,
                 num_repeats=NUM_REPEATS)
```

/home/ubuntu/cs682-project/util/models.py:103: UserWarning: RNN module weights are not part of single contiguous chunk of memory. This means they need to be compacted at every call, possibly greatly increasing memory usage. To compact weights again call `flatten_parameters()`.

```
    lstm, self.hidden = self.lstm(X, self.hidden)
```

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```
In [10]: SAMPLE_FILE_PATH = OUTPUT_PATH + "/12-09_21-52-24_7D4325.sample"

with open(SAMPLE_FILE_PATH, "wb") as file:
    pickle.dump(output, file)
```

```
In [11]: score = haydn_dataset.matrix_to_score(output)

SAVING = True

if SAVING:
    file_name = RUN_ID + "_" + RUN_TIME + ".pgz"
    mkdir(SAMPLE_PATH)
    output_path = SAMPLE_PATH + "/" + file_name
    converter.freeze(score, fp=output_path)

# converter.thaw(output_path)
```