

Current exercise is m06

The X_train size is torch.Size([124, 240, 117])

The y_train size is torch.Size([124])

The X_test size is torch.Size([56, 240, 117])

The y_test size is torch.Size([56])

The cuda availability is False

The cuda device is cpu

All frames shape is torch.Size([60, 117])

The frame size is torch.Size([60, 117])

The number of frames are 4 , the frame size is 60 and stride is 60

Current device: cpu

Model output is tensor([0.5153], grad_fn=<SigmoidBackward0>)

The no. of frames are 4

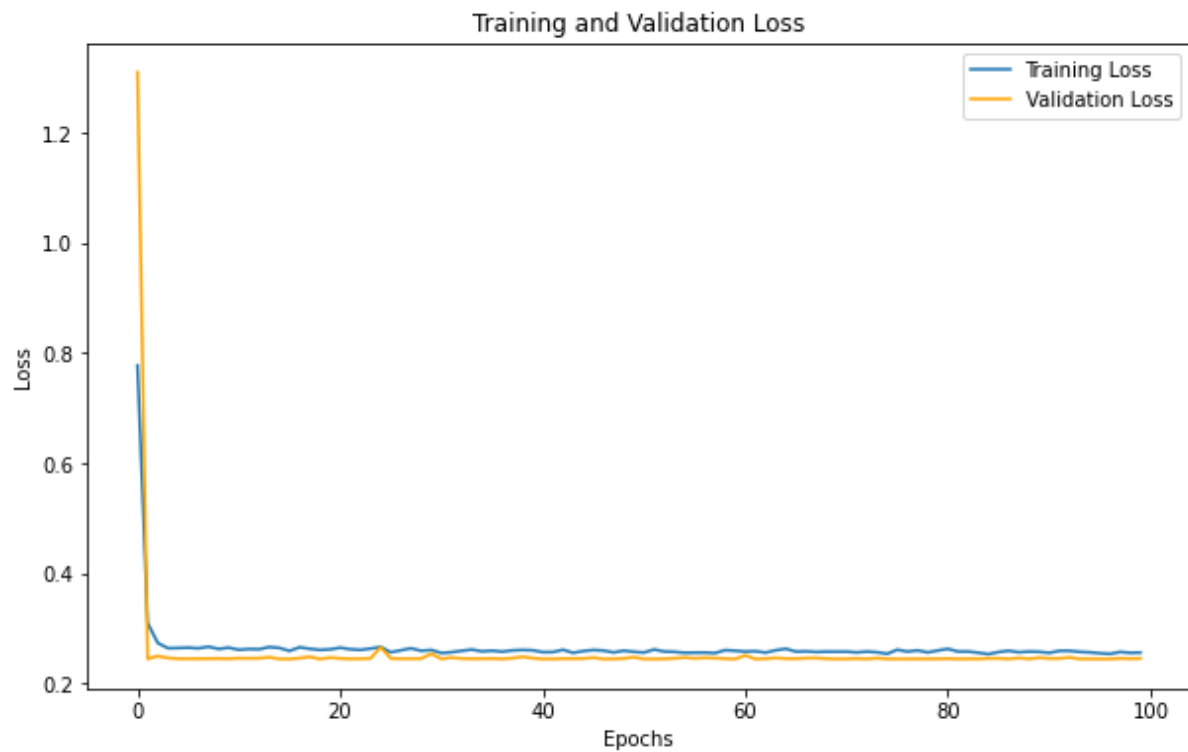
The hyperparameters are : model_dim is = 48 , num_heads = 4 , dim_feedforward = 48 , num_layers = 6 , dropout = 0.1 , stride = 60 , frame_size = 60 , dense_layer_neurons = 118 , epochs = 100, learning_rate = 0.0001

Epoch [1/100], Loss: 0.777454	Val loss: 1.310014	Best model at epoch: 0
Epoch [2/100], Loss: 0.309530	Val loss: 0.244289	Best model at epoch: 0
Epoch [3/100], Loss: 0.273178	Val loss: 0.249506	Best model at epoch: 0
Epoch [4/100], Loss: 0.263736	Val loss: 0.245904	Best model at epoch: 0
Epoch [5/100], Loss: 0.264095	Val loss: 0.244693	Best model at epoch: 0
Epoch [6/100], Loss: 0.264714	Val loss: 0.244474	Best model at epoch: 0
Epoch [7/100], Loss: 0.263599	Val loss: 0.244677	Best model at epoch: 0
Epoch [8/100], Loss: 0.266393	Val loss: 0.244757	Best model at epoch: 0
Epoch [9/100], Loss: 0.262387	Val loss: 0.244955	Best model at epoch: 0
Epoch [10/100], Loss: 0.264766	Val loss: 0.244566	Best model at epoch: 0
Epoch [11/100], Loss: 0.260815	Val loss: 0.245481	Best model at epoch: 0
Epoch [12/100], Loss: 0.262199	Val loss: 0.245275	Best model at epoch: 0
Epoch [13/100], Loss: 0.261872	Val loss: 0.245555	Best model at epoch: 0
Epoch [14/100], Loss: 0.265789	Val loss: 0.247242	Best model at epoch: 0
Epoch [15/100], Loss: 0.264230	Val loss: 0.244153	Best model at epoch: 0
Epoch [16/100], Loss: 0.258829	Val loss: 0.244078	Best model at epoch: 0

Epoch [17/100], Loss: 0.265413	Val loss: 0.245644	Best model at epoch: 17
Epoch [18/100], Loss: 0.262678	Val loss: 0.248023	Best model at epoch: 17
Epoch [19/100], Loss: 0.260608	Val loss: 0.244103	Best model at epoch: 19
Epoch [20/100], Loss: 0.261580	Val loss: 0.246610	Best model at epoch: 19
Epoch [21/100], Loss: 0.264678	Val loss: 0.245120	Best model at epoch: 19
Epoch [22/100], Loss: 0.261837	Val loss: 0.244336	Best model at epoch: 19
Epoch [23/100], Loss: 0.260636	Val loss: 0.244536	Best model at epoch: 19
Epoch [24/100], Loss: 0.263031	Val loss: 0.245148	Best model at epoch: 19
Epoch [25/100], Loss: 0.265929	Val loss: 0.265406	Best model at epoch: 19
Epoch [26/100], Loss: 0.256316	Val loss: 0.245112	Best model at epoch: 19
Epoch [27/100], Loss: 0.259897	Val loss: 0.244610	Best model at epoch: 19
Epoch [28/100], Loss: 0.263612	Val loss: 0.244504	Best model at epoch: 19
Epoch [29/100], Loss: 0.258968	Val loss: 0.244831	Best model at epoch: 19
Epoch [30/100], Loss: 0.260514	Val loss: 0.253749	Best model at epoch: 19
Epoch [31/100], Loss: 0.254901	Val loss: 0.244277	Best model at epoch: 19
Epoch [32/100], Loss: 0.256407	Val loss: 0.246682	Best model at epoch: 19
Epoch [33/100], Loss: 0.259048	Val loss: 0.244985	Best model at epoch: 19
Epoch [34/100], Loss: 0.261239	Val loss: 0.244529	Best model at epoch: 19
Epoch [35/100], Loss: 0.258024	Val loss: 0.244630	Best model at epoch: 19
Epoch [36/100], Loss: 0.259206	Val loss: 0.245004	Best model at epoch: 19
Epoch [37/100], Loss: 0.257414	Val loss: 0.244257	Best model at epoch: 19
Epoch [38/100], Loss: 0.259772	Val loss: 0.245541	Best model at epoch: 19
Epoch [39/100], Loss: 0.260530	Val loss: 0.248184	Best model at epoch: 19
Epoch [40/100], Loss: 0.259969	Val loss: 0.245603	Best model at epoch: 19
Epoch [41/100], Loss: 0.256611	Val loss: 0.244155	Best model at epoch: 19
Epoch [42/100], Loss: 0.256760	Val loss: 0.244143	Best model at epoch: 19
Epoch [43/100], Loss: 0.260902	Val loss: 0.244756	Best model at epoch: 19
Epoch [44/100], Loss: 0.255312	Val loss: 0.244849	Best model at epoch: 19
Epoch [45/100], Loss: 0.258570	Val loss: 0.244906	Best model at epoch: 19
Epoch [46/100], Loss: 0.260477	Val loss: 0.246556	Best model at epoch: 19
Epoch [47/100], Loss: 0.259405	Val loss: 0.244065	Best model at epoch: 47

Epoch [48/100], Loss: 0.256029	Val loss: 0.244210	Best model at epoch: 47
Epoch [49/100], Loss: 0.259253	Val loss: 0.245171	Best model at epoch: 47
Epoch [50/100], Loss: 0.257219	Val loss: 0.247401	Best model at epoch: 47
Epoch [51/100], Loss: 0.255864	Val loss: 0.244067	Best model at epoch: 47
Epoch [52/100], Loss: 0.261409	Val loss: 0.244089	Best model at epoch: 47
Epoch [53/100], Loss: 0.257684	Val loss: 0.244286	Best model at epoch: 47
Epoch [54/100], Loss: 0.257125	Val loss: 0.245416	Best model at epoch: 47
Epoch [55/100], Loss: 0.255354	Val loss: 0.246702	Best model at epoch: 47
Epoch [56/100], Loss: 0.255672	Val loss: 0.245318	Best model at epoch: 47
Epoch [57/100], Loss: 0.255761	Val loss: 0.246171	Best model at epoch: 47
Epoch [58/100], Loss: 0.254851	Val loss: 0.245819	Best model at epoch: 47
Epoch [59/100], Loss: 0.260191	Val loss: 0.244728	Best model at epoch: 47
Epoch [60/100], Loss: 0.259032	Val loss: 0.244046	Best model at epoch: 60
Epoch [61/100], Loss: 0.257658	Val loss: 0.250730	Best model at epoch: 60
Epoch [62/100], Loss: 0.258284	Val loss: 0.244019	Best model at epoch: 62
Epoch [63/100], Loss: 0.255714	Val loss: 0.244681	Best model at epoch: 62
Epoch [64/100], Loss: 0.260025	Val loss: 0.246096	Best model at epoch: 62
Epoch [65/100], Loss: 0.262719	Val loss: 0.244849	Best model at epoch: 62
Epoch [66/100], Loss: 0.257541	Val loss: 0.244615	Best model at epoch: 62
Epoch [67/100], Loss: 0.258059	Val loss: 0.245814	Best model at epoch: 62
Epoch [68/100], Loss: 0.256882	Val loss: 0.245880	Best model at epoch: 62
Epoch [69/100], Loss: 0.257461	Val loss: 0.244757	Best model at epoch: 62
Epoch [70/100], Loss: 0.257385	Val loss: 0.244074	Best model at epoch: 62
Epoch [71/100], Loss: 0.257458	Val loss: 0.244234	Best model at epoch: 62
Epoch [72/100], Loss: 0.256159	Val loss: 0.244854	Best model at epoch: 62
Epoch [73/100], Loss: 0.257564	Val loss: 0.244098	Best model at epoch: 62
Epoch [74/100], Loss: 0.256437	Val loss: 0.245718	Best model at epoch: 62
Epoch [75/100], Loss: 0.253546	Val loss: 0.244316	Best model at epoch: 62
Epoch [76/100], Loss: 0.260962	Val loss: 0.244126	Best model at epoch: 62
Epoch [77/100], Loss: 0.257608	Val loss: 0.244143	Best model at epoch: 62
Epoch [78/100], Loss: 0.259748	Val loss: 0.244321	Best model at epoch: 62

Epoch [79/100], Loss: 0.256075	Val loss: 0.244303	Best model at epoch: 62
Epoch [80/100], Loss: 0.259577	Val loss: 0.244397	Best model at epoch: 62
Epoch [81/100], Loss: 0.262504	Val loss: 0.244776	Best model at epoch: 62
Epoch [82/100], Loss: 0.257718	Val loss: 0.244101	Best model at epoch: 62
Epoch [83/100], Loss: 0.257627	Val loss: 0.244485	Best model at epoch: 62
Epoch [84/100], Loss: 0.255520	Val loss: 0.244313	Best model at epoch: 62
Epoch [85/100], Loss: 0.252905	Val loss: 0.245264	Best model at epoch: 62
Epoch [86/100], Loss: 0.256768	Val loss: 0.245258	Best model at epoch: 62
Epoch [87/100], Loss: 0.259053	Val loss: 0.244231	Best model at epoch: 62
Epoch [88/100], Loss: 0.256419	Val loss: 0.246024	Best model at epoch: 62
Epoch [89/100], Loss: 0.257618	Val loss: 0.244313	Best model at epoch: 62
Epoch [90/100], Loss: 0.257186	Val loss: 0.246494	Best model at epoch: 62
Epoch [91/100], Loss: 0.255198	Val loss: 0.245035	Best model at epoch: 62
Epoch [92/100], Loss: 0.258901	Val loss: 0.245205	Best model at epoch: 62
Epoch [93/100], Loss: 0.258946	Val loss: 0.246936	Best model at epoch: 62
Epoch [94/100], Loss: 0.257107	Val loss: 0.244163	Best model at epoch: 62
Epoch [95/100], Loss: 0.256175	Val loss: 0.244227	Best model at epoch: 62
Epoch [96/100], Loss: 0.254590	Val loss: 0.244207	Best model at epoch: 62
Epoch [97/100], Loss: 0.253373	Val loss: 0.244085	Best model at epoch: 62
Epoch [98/100], Loss: 0.256933	Val loss: 0.245257	Best model at epoch: 62
Epoch [99/100], Loss: 0.255237	Val loss: 0.244514	Best model at epoch: 62
Epoch [100/100], Loss: 0.255757	Val loss: 0.245278	Best model at epoch: 62



Total time in seconds : 5115.2681453228

The best model was found at epoch number 62

--- 01:25:15 seconds ---

The training loss is 0.25575730419373727

Performance with the best model is :

The test loss is 0.25680394124771866

Mean absolute deviation : 0.010640

RMS deviation:: 0.018264

The hyperparameters are : model_dim is = 48 , num_heads = 4 , dim_feedforward = 48 , num_layers = 6 , dropout = 0.1 , stride = 60 , frame_size = 60 , dense_layer_neurons = 118 , epochs = 100, learning_rate = 0.0001