hypercount: 1

i-Bidir\_1\_lr\_0.001\_nodrop

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0, inplace=False)

(relu): ReLU()

)

Epoch [1] out of 80

Training loss: 1.027.. Validation loss: 0.593..

AUC: 0.83 PR AUC: 0.26

Epoch [2] out of 80

Training loss: 0.975.. Validation loss: 0.537..

AUC: 0.86 PR AUC: 0.33

Epoch [3] out of 80

Training loss: 0.952.. Validation loss: 0.525..

AUC: 0.86 PR AUC: 0.33

Epoch [4] out of 80

Training loss: 0.941.. Validation loss: 0.522..

AUC: 0.85 PR AUC: 0.37

Epoch [5] out of 80

Training loss: 0.936.. Validation loss: 0.514..

AUC: 0.85 PR AUC: 0.38

Epoch [6] out of 80

Training loss: 0.932.. Validation loss: 0.524..

AUC: 0.85 PR AUC: 0.36

Epoch [7] out of 80

Training loss: 0.930.. Validation loss: 0.522..

AUC: 0.85 PR AUC: 0.34

Epoch [8] out of 80

Training loss: 0.928.. Validation loss: 0.531..

AUC: 0.85 PR AUC: 0.34

Epoch [9] out of 80

Training loss: 0.926.. Validation loss: 0.520..

AUC: 0.83 PR AUC: 0.33

Epoch [10] out of 80

Training loss: 0.924.. Validation loss: 0.552..

AUC: 0.84 PR AUC: 0.32

Epoch [11] out of 80

Training loss: 0.923.. Validation loss: 0.548..

AUC: 0.81 PR AUC: 0.32

Epoch [12] out of 80

Training loss: 0.922.. Validation loss: 0.749..

AUC: 0.87 PR AUC: 0.33

Epoch [13] out of 80

Training loss: 0.920.. Validation loss: 0.615..

AUC: 0.84 PR AUC: 0.33

Epoch [14] out of 80

Training loss: 0.919.. Validation loss: 0.595..

AUC: 0.83 PR AUC: 0.33

Epoch [15] out of 80

Training loss: 0.918.. Validation loss: 0.566..

AUC: 0.82 PR AUC: 0.33

Epoch [16] out of 80

Training loss: 0.917.. Validation loss: 0.550..

AUC: 0.81 PR AUC: 0.34

Epoch [17] out of 80

Training loss: 0.916.. Validation loss: 0.538..

AUC: 0.79 PR AUC: 0.34

Epoch [18] out of 80

Training loss: 0.921.. Validation loss: 0.546..

AUC: 0.81 PR AUC: 0.35

Epoch [19] out of 80

Training loss: 0.915.. Validation loss: 0.551..

AUC: 0.80 PR AUC: 0.36

Epoch [20] out of 80

Training loss: 0.914.. Validation loss: 0.539..

AUC: 0.80 PR AUC: 0.36

Epoch [21] out of 80

Training loss: 0.913.. Validation loss: 0.531..

AUC: 0.80 PR AUC: 0.36

Epoch [22] out of 80

Training loss: 0.912.. Validation loss: 0.537..

AUC: 0.80 PR AUC: 0.37

Epoch [23] out of 80

Training loss: 0.912.. Validation loss: 0.529..

AUC: 0.80 PR AUC: 0.37

Epoch [24] out of 80

Training loss: 0.912.. Validation loss: 0.529..

AUC: 0.80 PR AUC: 0.37

Epoch [25] out of 80

Training loss: 0.911.. Validation loss: 0.524..

AUC: 0.79 PR AUC: 0.38

Epoch [26] out of 80

Training loss: 0.911.. Validation loss: 0.520..

AUC: 0.80 PR AUC: 0.38

Epoch [27] out of 80

Training loss: 0.911.. Validation loss: 0.521..

AUC: 0.81 PR AUC: 0.39

Epoch [28] out of 80

Training loss: 0.910.. Validation loss: 0.519..

AUC: 0.81 PR AUC: 0.39

Epoch [29] out of 80

Training loss: 0.910.. Validation loss: 0.512..

AUC: 0.80 PR AUC: 0.39

Epoch [30] out of 80

Training loss: 0.909.. Validation loss: 0.511..

AUC: 0.80 PR AUC: 0.39

Epoch [31] out of 80

Training loss: 0.909.. Validation loss: 0.509..

AUC: 0.79 PR AUC: 0.39

Epoch [32] out of 80

Training loss: 0.909.. Validation loss: 0.506..

AUC: 0.79 PR AUC: 0.39

Epoch [33] out of 80

Training loss: 0.908.. Validation loss: 0.505..

AUC: 0.79 PR AUC: 0.39

Epoch [34] out of 80

Training loss: 0.908.. Validation loss: 0.506..

AUC: 0.79 PR AUC: 0.39

Epoch [35] out of 80

Training loss: 0.908.. Validation loss: 0.502..

AUC: 0.79 PR AUC: 0.40

Epoch [36] out of 80

Training loss: 0.907.. Validation loss: 0.500..

AUC: 0.79 PR AUC: 0.40

Epoch [37] out of 80

Training loss: 0.907.. Validation loss: 0.498..

AUC: 0.80 PR AUC: 0.40

Epoch [38] out of 80

Training loss: 0.907.. Validation loss: 0.500..

AUC: 0.80 PR AUC: 0.40

Epoch [39] out of 80

Training loss: 0.906.. Validation loss: 0.498..

AUC: 0.80 PR AUC: 0.40

Epoch [40] out of 80

Training loss: 0.906.. Validation loss: 0.495..

AUC: 0.80 PR AUC: 0.40

Epoch [41] out of 80

Training loss: 0.906.. Validation loss: 0.496..

AUC: 0.80 PR AUC: 0.40

Epoch [42] out of 80

Training loss: 0.906.. Validation loss: 0.497..

AUC: 0.79 PR AUC: 0.40

Epoch [43] out of 80

Training loss: 0.907.. Validation loss: 0.497..

AUC: 0.79 PR AUC: 0.40

Epoch [44] out of 80

Training loss: 0.905.. Validation loss: 0.495..

AUC: 0.78 PR AUC: 0.40

Epoch [45] out of 80

Training loss: 0.905.. Validation loss: 0.498..

AUC: 0.79 PR AUC: 0.40

Epoch [46] out of 80

Training loss: 0.905.. Validation loss: 0.499..

AUC: 0.78 PR AUC: 0.40

Epoch [47] out of 80

Training loss: 0.904.. Validation loss: 0.496..

AUC: 0.78 PR AUC: 0.40

Epoch [48] out of 80

Training loss: 0.904.. Validation loss: 0.495..

AUC: 0.79 PR AUC: 0.40

Epoch [49] out of 80

Training loss: 0.904.. Validation loss: 0.494..

AUC: 0.79 PR AUC: 0.40

Epoch [50] out of 80

Training loss: 0.903.. Validation loss: 0.496..

AUC: 0.78 PR AUC: 0.40

Epoch [51] out of 80

Training loss: 0.904.. Validation loss: 0.495..

AUC: 0.78 PR AUC: 0.40

Epoch [52] out of 80

Training loss: 0.903.. Validation loss: 0.496..

AUC: 0.78 PR AUC: 0.40

Epoch [53] out of 80

Training loss: 0.903.. Validation loss: 0.496..

AUC: 0.78 PR AUC: 0.40

Epoch [54] out of 80

Training loss: 0.903.. Validation loss: 0.497..

AUC: 0.77 PR AUC: 0.40

Epoch [55] out of 80

Training loss: 0.903.. Validation loss: 0.494..

AUC: 0.78 PR AUC: 0.41

Epoch [56] out of 80

Training loss: 0.903.. Validation loss: 0.496..

AUC: 0.78 PR AUC: 0.40

Epoch [57] out of 80

Training loss: 0.904.. Validation loss: 0.499..

AUC: 0.78 PR AUC: 0.40

Epoch [58] out of 80

Training loss: 0.902.. Validation loss: 0.498..

AUC: 0.78 PR AUC: 0.40

Epoch [59] out of 80

Training loss: 0.902.. Validation loss: 0.493..

AUC: 0.79 PR AUC: 0.41

Epoch [60] out of 80

Training loss: 0.902.. Validation loss: 0.493..

AUC: 0.79 PR AUC: 0.41

Epoch [61] out of 80

Training loss: 0.902.. Validation loss: 0.496..

AUC: 0.80 PR AUC: 0.40

Epoch [62] out of 80

Training loss: 0.902.. Validation loss: 0.486..

AUC: 0.80 PR AUC: 0.41

Epoch [63] out of 80

Training loss: 0.902.. Validation loss: 0.493..

AUC: 0.79 PR AUC: 0.41

Epoch [64] out of 80

Training loss: 0.902.. Validation loss: 0.491..

AUC: 0.74 PR AUC: 0.41

Epoch [65] out of 80

Training loss: 0.902.. Validation loss: 0.498..

AUC: 0.73 PR AUC: 0.40

Epoch [66] out of 80

Training loss: 0.903.. Validation loss: 0.499..

AUC: 0.73 PR AUC: 0.40

Epoch [67] out of 80

Training loss: 0.902.. Validation loss: 0.498..

AUC: 0.72 PR AUC: 0.40

Epoch [68] out of 80

Training loss: 0.902.. Validation loss: 0.499..

AUC: 0.73 PR AUC: 0.40

Epoch [69] out of 80

Training loss: 0.901.. Validation loss: 0.500..

AUC: 0.73 PR AUC: 0.40

Epoch [70] out of 80

Training loss: 0.901.. Validation loss: 0.498..

AUC: 0.74 PR AUC: 0.40

Epoch [71] out of 80

Training loss: 0.906.. Validation loss: 0.507..

AUC: 0.73 PR AUC: 0.39

Epoch [72] out of 80

Training loss: 0.902.. Validation loss: 0.505..

AUC: 0.73 PR AUC: 0.39

Epoch [73] out of 80

Training loss: 0.901.. Validation loss: 0.505..

AUC: 0.72 PR AUC: 0.39

Epoch [74] out of 80

Training loss: 0.901.. Validation loss: 0.507..

AUC: 0.72 PR AUC: 0.39

Epoch [75] out of 80

Training loss: 0.915.. Validation loss: 0.487..

AUC: 0.74 PR AUC: 0.41

Epoch [76] out of 80

Training loss: 0.902.. Validation loss: 0.501..

AUC: 0.74 PR AUC: 0.39

Epoch [77] out of 80

Training loss: 0.901.. Validation loss: 0.501..

AUC: 0.75 PR AUC: 0.39

Epoch [78] out of 80

Training loss: 0.901.. Validation loss: 0.505..

AUC: 0.73 PR AUC: 0.39

Epoch [79] out of 80

Training loss: 0.900.. Validation loss: 0.501..

AUC: 0.74 PR AUC: 0.39

Epoch [80] out of 80

Training loss: 0.900.. Validation loss: 0.505..

AUC: 0.73 PR AUC: 0.39

Finished Training

starttime = 2021-01-09 18:50:13.696339

endtime = 2021-01-09 21:08:41.893453

Last model

Area Under ROC Curve: 0.63

Area Under PR Curve(AP): 0.78

Brier score : 0.340

Accuracy for Classifier : 0.64

Cut off: 0.1076

[[1873 126]

[1588 1189]]

Best model

Area Under ROC Curve: 0.76

Area Under PR Curve(AP): 0.86

Brier score : 0.182

Accuracy for Classifier : 0.75

Cut off: 0.3913

[[1850 149]

[1036 1741]]

hypercount: 2

i-Bidir\_1\_lr\_0.0001\_nodrop

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0, inplace=False)

(relu): ReLU()

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Epoch [1] out of 80

Training loss: 1.137.. Validation loss: 0.921..

AUC: 0.77 PR AUC: 0.33

Epoch [2] out of 80

Training loss: 1.072.. Validation loss: 1.005..

AUC: 0.68 PR AUC: 0.33

Epoch [3] out of 80

Training loss: 1.048.. Validation loss: 1.041..

AUC: 0.68 PR AUC: 0.32

Epoch [4] out of 80

Training loss: 1.039.. Validation loss: 1.056..

AUC: 0.71 PR AUC: 0.33

Epoch [5] out of 80

Training loss: 1.032.. Validation loss: 1.088..

AUC: 0.74 PR AUC: 0.34

Epoch [6] out of 80

Training loss: 1.025.. Validation loss: 1.122..

AUC: 0.78 PR AUC: 0.34

Epoch [7] out of 80

Training loss: 1.022.. Validation loss: 1.143..

AUC: 0.80 PR AUC: 0.34

Epoch [8] out of 80

Training loss: 1.018.. Validation loss: 1.187..

AUC: 0.83 PR AUC: 0.34

Epoch [9] out of 80

Training loss: 1.014.. Validation loss: 1.233..

AUC: 0.84 PR AUC: 0.35

Epoch [10] out of 80

Training loss: 1.010.. Validation loss: 1.295..

AUC: 0.85 PR AUC: 0.35

Epoch [11] out of 80

Training loss: 1.005.. Validation loss: 1.364..

AUC: 0.87 PR AUC: 0.35

Epoch [12] out of 80

Training loss: 1.002.. Validation loss: 1.444..

AUC: 0.88 PR AUC: 0.35

Epoch [13] out of 80

Training loss: 0.996.. Validation loss: 1.526..

AUC: 0.89 PR AUC: 0.35

Epoch [14] out of 80

Training loss: 0.991.. Validation loss: 1.599..

AUC: 0.89 PR AUC: 0.35

Epoch [15] out of 80

Training loss: 0.987.. Validation loss: 1.669..

AUC: 0.90 PR AUC: 0.35

Epoch [16] out of 80

Training loss: 0.984.. Validation loss: 1.722..

AUC: 0.91 PR AUC: 0.35

Epoch [17] out of 80

Training loss: 0.981.. Validation loss: 1.778..

AUC: 0.91 PR AUC: 0.35

Epoch [18] out of 80

Training loss: 0.976.. Validation loss: 1.828..

AUC: 0.91 PR AUC: 0.35

Epoch [19] out of 80

Training loss: 0.971.. Validation loss: 1.886..

AUC: 0.91 PR AUC: 0.35

Epoch [20] out of 80

Training loss: 0.968.. Validation loss: 1.921..

AUC: 0.91 PR AUC: 0.35

Epoch [21] out of 80

Training loss: 0.965.. Validation loss: 1.966..

AUC: 0.91 PR AUC: 0.35

Epoch [22] out of 80

Training loss: 0.963.. Validation loss: 2.005..

AUC: 0.91 PR AUC: 0.35

Epoch [23] out of 80

Training loss: 0.962.. Validation loss: 2.033..

AUC: 0.91 PR AUC: 0.35

Epoch [24] out of 80

Training loss: 0.956.. Validation loss: 2.074..

AUC: 0.91 PR AUC: 0.35

Epoch [25] out of 80

Training loss: 0.954.. Validation loss: 2.114..

AUC: 0.91 PR AUC: 0.35

Epoch [26] out of 80

Training loss: 0.954.. Validation loss: 2.147..

AUC: 0.90 PR AUC: 0.34

Epoch [27] out of 80

Training loss: 0.953.. Validation loss: 2.150..

AUC: 0.90 PR AUC: 0.34

Epoch [28] out of 80

Training loss: 0.954.. Validation loss: 2.166..

AUC: 0.89 PR AUC: 0.34

Epoch [29] out of 80

Training loss: 0.951.. Validation loss: 2.196..

AUC: 0.88 PR AUC: 0.33

Epoch [30] out of 80

Training loss: 0.946.. Validation loss: 2.225..

AUC: 0.88 PR AUC: 0.33

Epoch [31] out of 80

Training loss: 0.950.. Validation loss: 2.239..

AUC: 0.87 PR AUC: 0.33

Epoch [32] out of 80

Training loss: 0.945.. Validation loss: 2.269..

AUC: 0.86 PR AUC: 0.32

Epoch [33] out of 80

Training loss: 0.944.. Validation loss: 2.294..

AUC: 0.85 PR AUC: 0.32

Epoch [34] out of 80

Training loss: 0.942.. Validation loss: 2.317..

AUC: 0.84 PR AUC: 0.31

Epoch [35] out of 80

Training loss: 0.943.. Validation loss: 2.342..

AUC: 0.83 PR AUC: 0.30

Epoch [36] out of 80

Training loss: 0.943.. Validation loss: 2.352..

AUC: 0.82 PR AUC: 0.30

Epoch [37] out of 80

Training loss: 0.940.. Validation loss: 2.371..

AUC: 0.81 PR AUC: 0.30

Epoch [38] out of 80

Training loss: 0.939.. Validation loss: 2.393..

AUC: 0.80 PR AUC: 0.29

Epoch [39] out of 80

Training loss: 0.941.. Validation loss: 2.417..

AUC: 0.79 PR AUC: 0.29

Epoch [40] out of 80

Training loss: 0.940.. Validation loss: 2.431..

AUC: 0.78 PR AUC: 0.28

Epoch [41] out of 80

Training loss: 0.937.. Validation loss: 2.452..

AUC: 0.78 PR AUC: 0.28

Epoch [42] out of 80

Training loss: 0.962.. Validation loss: 2.392..

AUC: 0.76 PR AUC: 0.27

Epoch [43] out of 80

Training loss: 0.936.. Validation loss: 2.447..

AUC: 0.76 PR AUC: 0.27

Epoch [44] out of 80

Training loss: 0.935.. Validation loss: 2.478..

AUC: 0.75 PR AUC: 0.26

Epoch [45] out of 80

Training loss: 0.936.. Validation loss: 2.494..

AUC: 0.74 PR AUC: 0.26

Epoch [46] out of 80

Training loss: 0.935.. Validation loss: 2.515..

AUC: 0.74 PR AUC: 0.26

Epoch [47] out of 80

Training loss: 0.935.. Validation loss: 2.529..

AUC: 0.73 PR AUC: 0.26

Epoch [48] out of 80

Training loss: 0.932.. Validation loss: 2.547..

AUC: 0.73 PR AUC: 0.26

Epoch [49] out of 80

Training loss: 0.933.. Validation loss: 2.563..

AUC: 0.73 PR AUC: 0.25

Epoch [50] out of 80

Training loss: 0.932.. Validation loss: 2.567..

AUC: 0.73 PR AUC: 0.25

Epoch [51] out of 80

Training loss: 0.931.. Validation loss: 2.584..

AUC: 0.72 PR AUC: 0.25

Epoch [52] out of 80

Training loss: 0.931.. Validation loss: 2.600..

AUC: 0.72 PR AUC: 0.25

Epoch [53] out of 80

Training loss: 0.930.. Validation loss: 2.616..

AUC: 0.71 PR AUC: 0.25

Epoch [54] out of 80

Training loss: 0.930.. Validation loss: 2.624..

AUC: 0.71 PR AUC: 0.25

Epoch [55] out of 80

Training loss: 0.931.. Validation loss: 2.637..

AUC: 0.70 PR AUC: 0.24

Epoch [56] out of 80

Training loss: 0.929.. Validation loss: 2.655..

AUC: 0.70 PR AUC: 0.24

Epoch [57] out of 80

Training loss: 0.929.. Validation loss: 2.667..

AUC: 0.69 PR AUC: 0.23

Epoch [58] out of 80

Training loss: 0.928.. Validation loss: 2.679..

AUC: 0.68 PR AUC: 0.23

Epoch [59] out of 80

Training loss: 0.929.. Validation loss: 2.683..

AUC: 0.68 PR AUC: 0.23

Epoch [60] out of 80

Training loss: 0.927.. Validation loss: 2.693..

AUC: 0.68 PR AUC: 0.23

Epoch [61] out of 80

Training loss: 0.927.. Validation loss: 2.697..

AUC: 0.68 PR AUC: 0.23

Epoch [62] out of 80

Training loss: 0.930.. Validation loss: 2.685..

AUC: 0.69 PR AUC: 0.24

Epoch [63] out of 80

Training loss: 0.927.. Validation loss: 2.693..

AUC: 0.68 PR AUC: 0.23

Epoch [64] out of 80

Training loss: 0.926.. Validation loss: 2.702..

AUC: 0.68 PR AUC: 0.24

Epoch [65] out of 80

Training loss: 0.925.. Validation loss: 2.714..

AUC: 0.68 PR AUC: 0.23

Epoch [66] out of 80

Training loss: 0.925.. Validation loss: 2.717..

AUC: 0.68 PR AUC: 0.24

Epoch [67] out of 80

Training loss: 0.925.. Validation loss: 2.725..

AUC: 0.68 PR AUC: 0.23

Epoch [68] out of 80

Training loss: 0.926.. Validation loss: 2.728..

AUC: 0.68 PR AUC: 0.23

Epoch [69] out of 80

Training loss: 0.924.. Validation loss: 2.737..

AUC: 0.68 PR AUC: 0.23

Epoch [70] out of 80

Training loss: 0.928.. Validation loss: 2.740..

AUC: 0.68 PR AUC: 0.24

Epoch [71] out of 80

Training loss: 0.924.. Validation loss: 2.736..

AUC: 0.69 PR AUC: 0.24

Epoch [72] out of 80

Training loss: 0.923.. Validation loss: 2.743..

AUC: 0.69 PR AUC: 0.24

Epoch [73] out of 80

Training loss: 0.923.. Validation loss: 2.747..

AUC: 0.69 PR AUC: 0.24

Epoch [74] out of 80

Training loss: 0.923.. Validation loss: 2.747..

AUC: 0.70 PR AUC: 0.24

Epoch [75] out of 80

Training loss: 0.923.. Validation loss: 2.750..

AUC: 0.70 PR AUC: 0.24

Epoch [76] out of 80

Training loss: 0.922.. Validation loss: 2.752..

AUC: 0.70 PR AUC: 0.24

Epoch [77] out of 80

Training loss: 0.922.. Validation loss: 2.756..

AUC: 0.70 PR AUC: 0.25

Epoch [78] out of 80

Training loss: 0.922.. Validation loss: 2.755..

AUC: 0.71 PR AUC: 0.25

Epoch [79] out of 80

Training loss: 0.921.. Validation loss: 2.760..

AUC: 0.71 PR AUC: 0.25

Epoch [80] out of 80

Training loss: 0.921.. Validation loss: 2.762..

AUC: 0.71 PR AUC: 0.25

Finished Training

starttime = 2021-01-09 21:08:42.906378

endtime = 2021-01-09 23:22:43.459590

Last model

Area Under ROC Curve: 0.57

Area Under PR Curve(AP): 0.75

Brier score : 0.384

Accuracy for Classifier : 0.62

Cut off: 0.9591

[[1958 41]

[1775 1002]]

Best model

Area Under ROC Curve: 0.76

Area Under PR Curve(AP): 0.86

Brier score : 0.320

Accuracy for Classifier : 0.80

Cut off: 0.8639

[[1922 77]

[ 886 1891]]

hypercount: 3

i-Bidir\_1\_lr\_0.001\_drop0.2

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0.2, inplace=False)

(relu): ReLU()

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Epoch [1] out of 80

Training loss: 1.046.. Validation loss: 0.641..

AUC: 0.81 PR AUC: 0.33

Epoch [2] out of 80

Training loss: 1.015.. Validation loss: 0.503..

AUC: 0.77 PR AUC: 0.25

Epoch [3] out of 80

Training loss: 1.000.. Validation loss: 0.483..

AUC: 0.81 PR AUC: 0.25

Epoch [4] out of 80

Training loss: 0.991.. Validation loss: 0.502..

AUC: 0.84 PR AUC: 0.29

Epoch [5] out of 80

Training loss: 0.986.. Validation loss: 1.174..

AUC: 0.84 PR AUC: 0.30

Epoch [6] out of 80

Training loss: 0.985.. Validation loss: 0.710..

AUC: 0.82 PR AUC: 0.37

Epoch [7] out of 80

Training loss: 0.979.. Validation loss: 1.242..

AUC: 0.84 PR AUC: 0.35

Epoch [8] out of 80

Training loss: 0.981.. Validation loss: 0.917..

AUC: 0.84 PR AUC: 0.33

Epoch [9] out of 80

Training loss: 0.980.. Validation loss: 0.564..

AUC: 0.84 PR AUC: 0.42

Epoch [10] out of 80

Training loss: 0.974.. Validation loss: 1.066..

AUC: 0.86 PR AUC: 0.36

Epoch [11] out of 80

Training loss: 0.974.. Validation loss: 0.580..

AUC: 0.81 PR AUC: 0.37

Epoch [12] out of 80

Training loss: 0.972.. Validation loss: 0.766..

AUC: 0.84 PR AUC: 0.37

Epoch [13] out of 80

Training loss: 0.972.. Validation loss: 0.563..

AUC: 0.84 PR AUC: 0.39

Epoch [14] out of 80

Training loss: 0.970.. Validation loss: 0.489..

AUC: 0.85 PR AUC: 0.40

Epoch [15] out of 80

Training loss: 0.969.. Validation loss: 0.686..

AUC: 0.85 PR AUC: 0.39

Epoch [16] out of 80

Training loss: 0.968.. Validation loss: 0.867..

AUC: 0.87 PR AUC: 0.44

Epoch [17] out of 80

Training loss: 0.967.. Validation loss: 0.650..

AUC: 0.87 PR AUC: 0.45

Epoch [18] out of 80

Training loss: 0.967.. Validation loss: 0.660..

AUC: 0.84 PR AUC: 0.45

Epoch [19] out of 80

Training loss: 0.966.. Validation loss: 0.514..

AUC: 0.85 PR AUC: 0.45

Epoch [20] out of 80

Training loss: 0.965.. Validation loss: 0.695..

AUC: 0.86 PR AUC: 0.46

Epoch [21] out of 80

Training loss: 0.964.. Validation loss: 0.520..

AUC: 0.85 PR AUC: 0.45

Epoch [22] out of 80

Training loss: 0.964.. Validation loss: 0.880..

AUC: 0.87 PR AUC: 0.47

Epoch [23] out of 80

Training loss: 0.964.. Validation loss: 0.672..

AUC: 0.86 PR AUC: 0.46

Epoch [24] out of 80

Training loss: 0.964.. Validation loss: 0.548..

AUC: 0.85 PR AUC: 0.46

Epoch [25] out of 80

Training loss: 0.962.. Validation loss: 0.633..

AUC: 0.87 PR AUC: 0.47

Epoch [26] out of 80

Training loss: 0.963.. Validation loss: 0.555..

AUC: 0.86 PR AUC: 0.46

Epoch [27] out of 80

Training loss: 0.961.. Validation loss: 0.531..

AUC: 0.86 PR AUC: 0.46

Epoch [28] out of 80

Training loss: 0.962.. Validation loss: 0.710..

AUC: 0.88 PR AUC: 0.47

Epoch [29] out of 80

Training loss: 0.960.. Validation loss: 0.767..

AUC: 0.87 PR AUC: 0.47

Epoch [30] out of 80

Training loss: 0.961.. Validation loss: 0.964..

AUC: 0.87 PR AUC: 0.46

Epoch [31] out of 80

Training loss: 0.960.. Validation loss: 0.747..

AUC: 0.87 PR AUC: 0.48

Epoch [32] out of 80

Training loss: 0.958.. Validation loss: 0.928..

AUC: 0.87 PR AUC: 0.46

Epoch [33] out of 80

Training loss: 0.958.. Validation loss: 0.985..

AUC: 0.86 PR AUC: 0.47

Epoch [34] out of 80

Training loss: 0.958.. Validation loss: 0.699..

AUC: 0.86 PR AUC: 0.47

Epoch [35] out of 80

Training loss: 0.957.. Validation loss: 0.834..

AUC: 0.87 PR AUC: 0.47

Epoch [36] out of 80

Training loss: 0.957.. Validation loss: 0.716..

AUC: 0.87 PR AUC: 0.48

Epoch [37] out of 80

Training loss: 0.957.. Validation loss: 0.684..

AUC: 0.88 PR AUC: 0.49

Epoch [38] out of 80

Training loss: 0.955.. Validation loss: 0.893..

AUC: 0.88 PR AUC: 0.49

Epoch [39] out of 80

Training loss: 0.956.. Validation loss: 0.673..

AUC: 0.88 PR AUC: 0.49

Epoch [40] out of 80

Training loss: 0.955.. Validation loss: 0.869..

AUC: 0.87 PR AUC: 0.49

Epoch [41] out of 80

Training loss: 0.954.. Validation loss: 0.934..

AUC: 0.85 PR AUC: 0.49

Epoch [42] out of 80

Training loss: 0.955.. Validation loss: 0.902..

AUC: 0.85 PR AUC: 0.50

Epoch [43] out of 80

Training loss: 0.952.. Validation loss: 0.775..

AUC: 0.84 PR AUC: 0.50

Epoch [44] out of 80

Training loss: 0.951.. Validation loss: 0.935..

AUC: 0.87 PR AUC: 0.51

Epoch [45] out of 80

Training loss: 0.953.. Validation loss: 0.879..

AUC: 0.86 PR AUC: 0.52

Epoch [46] out of 80

Training loss: 0.952.. Validation loss: 0.758..

AUC: 0.85 PR AUC: 0.51

Epoch [47] out of 80

Training loss: 0.952.. Validation loss: 0.660..

AUC: 0.86 PR AUC: 0.52

Epoch [48] out of 80

Training loss: 0.952.. Validation loss: 0.914..

AUC: 0.85 PR AUC: 0.52

Epoch [49] out of 80

Training loss: 0.950.. Validation loss: 0.687..

AUC: 0.85 PR AUC: 0.52

Epoch [50] out of 80

Training loss: 0.950.. Validation loss: 0.843..

AUC: 0.87 PR AUC: 0.52

Epoch [51] out of 80

Training loss: 0.950.. Validation loss: 0.719..

AUC: 0.85 PR AUC: 0.53

Epoch [52] out of 80

Training loss: 0.950.. Validation loss: 0.659..

AUC: 0.84 PR AUC: 0.51

Epoch [53] out of 80

Training loss: 0.948.. Validation loss: 0.706..

AUC: 0.85 PR AUC: 0.52

Epoch [54] out of 80

Training loss: 0.950.. Validation loss: 0.816..

AUC: 0.86 PR AUC: 0.52

Epoch [55] out of 80

Training loss: 0.949.. Validation loss: 0.528..

AUC: 0.85 PR AUC: 0.52

Epoch [56] out of 80

Training loss: 0.949.. Validation loss: 0.823..

AUC: 0.87 PR AUC: 0.52

Epoch [57] out of 80

Training loss: 0.948.. Validation loss: 0.635..

AUC: 0.85 PR AUC: 0.52

Epoch [58] out of 80

Training loss: 0.947.. Validation loss: 0.538..

AUC: 0.84 PR AUC: 0.52

Epoch [59] out of 80

Training loss: 0.948.. Validation loss: 0.864..

AUC: 0.87 PR AUC: 0.52

Epoch [60] out of 80

Training loss: 0.947.. Validation loss: 0.900..

AUC: 0.87 PR AUC: 0.53

Epoch [61] out of 80

Training loss: 0.947.. Validation loss: 0.849..

AUC: 0.86 PR AUC: 0.51

Epoch [62] out of 80

Training loss: 0.947.. Validation loss: 0.870..

AUC: 0.85 PR AUC: 0.51

Epoch [63] out of 80

Training loss: 0.947.. Validation loss: 0.917..

AUC: 0.90 PR AUC: 0.51

Epoch [64] out of 80

Training loss: 0.946.. Validation loss: 0.889..

AUC: 0.88 PR AUC: 0.52

Epoch [65] out of 80

Training loss: 0.946.. Validation loss: 0.858..

AUC: 0.85 PR AUC: 0.52

Epoch [66] out of 80

Training loss: 0.945.. Validation loss: 0.898..

AUC: 0.88 PR AUC: 0.51

Epoch [67] out of 80

Training loss: 0.946.. Validation loss: 0.890..

AUC: 0.89 PR AUC: 0.51

Epoch [68] out of 80

Training loss: 0.946.. Validation loss: 0.883..

AUC: 0.89 PR AUC: 0.53

Epoch [69] out of 80

Training loss: 0.945.. Validation loss: 0.894..

AUC: 0.89 PR AUC: 0.51

Epoch [70] out of 80

Training loss: 0.944.. Validation loss: 0.924..

AUC: 0.90 PR AUC: 0.51

Epoch [71] out of 80

Training loss: 0.945.. Validation loss: 0.878..

AUC: 0.87 PR AUC: 0.51

Epoch [72] out of 80

Training loss: 0.945.. Validation loss: 0.957..

AUC: 0.89 PR AUC: 0.51

Epoch [73] out of 80

Training loss: 0.946.. Validation loss: 0.881..

AUC: 0.85 PR AUC: 0.52

Epoch [74] out of 80

Training loss: 0.945.. Validation loss: 0.898..

AUC: 0.86 PR AUC: 0.52

Epoch [75] out of 80

Training loss: 0.945.. Validation loss: 0.958..

AUC: 0.88 PR AUC: 0.52

Epoch [76] out of 80

Training loss: 0.945.. Validation loss: 0.939..

AUC: 0.88 PR AUC: 0.52

Epoch [77] out of 80

Training loss: 0.944.. Validation loss: 0.885..

AUC: 0.86 PR AUC: 0.52

Epoch [78] out of 80

Training loss: 0.944.. Validation loss: 0.911..

AUC: 0.89 PR AUC: 0.51

Epoch [79] out of 80

Training loss: 0.944.. Validation loss: 0.992..

AUC: 0.91 PR AUC: 0.50

Epoch [80] out of 80

Training loss: 0.944.. Validation loss: 0.912..

AUC: 0.88 PR AUC: 0.52

Finished Training

starttime = 2021-01-09 23:22:44.435439

endtime = 2021-01-10 01:35:30.653088

Last model

Area Under ROC Curve: 0.63

Area Under PR Curve(AP): 0.78

Brier score : 0.227

Accuracy for Classifier : 0.63

Cut off: 0.8145

[[1970 29]

[1752 1025]]

Best model

Area Under ROC Curve: 0.67

Area Under PR Curve(AP): 0.80

Brier score : 0.216

Accuracy for Classifier : 0.66

Cut off: 0.8168

[[1958 41]

[1582 1195]]

hypercount: 4

i-Bidir\_1\_lr\_0.0001\_drop0.2

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0.2, inplace=False)

(relu): ReLU()

)

Epoch [1] out of 80

Training loss: 1.219.. Validation loss: 0.944..

AUC: 0.50 PR AUC: 0.53

Epoch [2] out of 80

Training loss: 1.200.. Validation loss: 0.898..

AUC: 0.50 PR AUC: 0.53

Epoch [3] out of 80

Training loss: 1.198.. Validation loss: 0.883..

AUC: 0.50 PR AUC: 0.53

Epoch [4] out of 80

Training loss: 1.198.. Validation loss: 0.877..

AUC: 0.50 PR AUC: 0.53

Epoch [5] out of 80

Training loss: 1.198.. Validation loss: 0.875..

AUC: 0.50 PR AUC: 0.53

Epoch [6] out of 80

Training loss: 1.198.. Validation loss: 0.874..

AUC: 0.50 PR AUC: 0.53

Epoch [7] out of 80

Training loss: 1.198.. Validation loss: 0.874..

AUC: 0.50 PR AUC: 0.53

Epoch [8] out of 80

Training loss: 1.198.. Validation loss: 0.873..

AUC: 0.50 PR AUC: 0.53

Epoch [9] out of 80

Training loss: 1.198.. Validation loss: 0.873..

AUC: 0.50 PR AUC: 0.53

Epoch [10] out of 80

Training loss: 1.198.. Validation loss: 0.873..

AUC: 0.50 PR AUC: 0.53

Epoch [11] out of 80

Training loss: 1.198.. Validation loss: 0.873..

AUC: 0.50 PR AUC: 0.53

out of patience

Finished Training

starttime = 2021-01-10 01:35:31.527601

endtime = 2021-01-10 01:53:07.753355

Last model

Area Under ROC Curve: 0.50

Area Under PR Curve(AP): 0.79

Brier score : 0.246

Accuracy for Classifier : 0.42

Cut off: 1.5258

[[1999 0]

[2777 0]]

Best model

Area Under ROC Curve: 0.50

Area Under PR Curve(AP): 0.79

Brier score : 0.244

Accuracy for Classifier : 0.42

Cut off: 1.5694

[[1999 0]

[2777 0]]

hypercount: 5

i-Bidir\_2\_lr\_0.001\_nodrop

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, num\_layers=2, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0, inplace=False)

(relu): ReLU()

)

Epoch [1] out of 80

Training loss: 1.009.. Validation loss: 1.504..

AUC: 0.49 PR AUC: 0.44

Epoch [2] out of 80

Training loss: 0.962.. Validation loss: 1.700..

AUC: 0.49 PR AUC: 0.44

Epoch [3] out of 80

Training loss: 0.934.. Validation loss: 1.829..

AUC: 0.50 PR AUC: 0.40

Epoch [4] out of 80

Training loss: 0.920.. Validation loss: 1.619..

AUC: 0.74 PR AUC: 0.49

Epoch [5] out of 80

Training loss: 0.909.. Validation loss: 1.565..

AUC: 0.75 PR AUC: 0.50

Epoch [6] out of 80

Training loss: 0.903.. Validation loss: 1.542..

AUC: 0.75 PR AUC: 0.51

Epoch [7] out of 80

Training loss: 0.899.. Validation loss: 1.473..

AUC: 0.76 PR AUC: 0.51

Epoch [8] out of 80

Training loss: 0.895.. Validation loss: 1.470..

AUC: 0.77 PR AUC: 0.52

Epoch [9] out of 80

Training loss: 0.893.. Validation loss: 1.462..

AUC: 0.77 PR AUC: 0.52

Epoch [10] out of 80

Training loss: 0.891.. Validation loss: 1.448..

AUC: 0.78 PR AUC: 0.52

Epoch [11] out of 80

Training loss: 0.889.. Validation loss: 1.397..

AUC: 0.78 PR AUC: 0.52

Epoch [12] out of 80

Training loss: 0.887.. Validation loss: 1.455..

AUC: 0.79 PR AUC: 0.53

Epoch [13] out of 80

Training loss: 0.886.. Validation loss: 1.454..

AUC: 0.80 PR AUC: 0.53

Epoch [14] out of 80

Training loss: 0.885.. Validation loss: 1.493..

AUC: 0.80 PR AUC: 0.53

Epoch [15] out of 80

Training loss: 0.884.. Validation loss: 1.535..

AUC: 0.80 PR AUC: 0.53

Epoch [16] out of 80

Training loss: 0.882.. Validation loss: 1.507..

AUC: 0.80 PR AUC: 0.53

Epoch [17] out of 80

Training loss: 0.881.. Validation loss: 1.519..

AUC: 0.81 PR AUC: 0.53

Epoch [18] out of 80

Training loss: 0.881.. Validation loss: 1.545..

AUC: 0.81 PR AUC: 0.53

Epoch [19] out of 80

Training loss: 0.880.. Validation loss: 1.608..

AUC: 0.80 PR AUC: 0.53

Epoch [20] out of 80

Training loss: 0.879.. Validation loss: 1.692..

AUC: 0.81 PR AUC: 0.53

Epoch [21] out of 80

Training loss: 0.879.. Validation loss: 1.742..

AUC: 0.80 PR AUC: 0.53

Epoch [22] out of 80

Training loss: 0.878.. Validation loss: 1.774..

AUC: 0.80 PR AUC: 0.53

Epoch [23] out of 80

Training loss: 0.877.. Validation loss: 1.818..

AUC: 0.80 PR AUC: 0.53

Epoch [24] out of 80

Training loss: 0.877.. Validation loss: 1.833..

AUC: 0.80 PR AUC: 0.53

Epoch [25] out of 80

Training loss: 0.876.. Validation loss: 1.832..

AUC: 0.80 PR AUC: 0.53

Epoch [26] out of 80

Training loss: 0.876.. Validation loss: 1.889..

AUC: 0.79 PR AUC: 0.53

Epoch [27] out of 80

Training loss: 0.875.. Validation loss: 1.923..

AUC: 0.79 PR AUC: 0.52

Epoch [28] out of 80

Training loss: 0.875.. Validation loss: 1.955..

AUC: 0.79 PR AUC: 0.52

Epoch [29] out of 80

Training loss: 0.874.. Validation loss: 1.984..

AUC: 0.78 PR AUC: 0.52

Epoch [30] out of 80

Training loss: 0.873.. Validation loss: 1.992..

AUC: 0.78 PR AUC: 0.52

Epoch [31] out of 80

Training loss: 0.873.. Validation loss: 2.055..

AUC: 0.78 PR AUC: 0.52

Epoch [32] out of 80

Training loss: 0.872.. Validation loss: 2.058..

AUC: 0.77 PR AUC: 0.52

Epoch [33] out of 80

Training loss: 0.872.. Validation loss: 2.069..

AUC: 0.77 PR AUC: 0.52

Epoch [34] out of 80

Training loss: 0.872.. Validation loss: 2.058..

AUC: 0.77 PR AUC: 0.51

Epoch [35] out of 80

Training loss: 0.872.. Validation loss: 2.082..

AUC: 0.77 PR AUC: 0.51

Epoch [36] out of 80

Training loss: 0.871.. Validation loss: 2.113..

AUC: 0.77 PR AUC: 0.52

Epoch [37] out of 80

Training loss: 0.871.. Validation loss: 2.171..

AUC: 0.77 PR AUC: 0.52

Epoch [38] out of 80

Training loss: 0.871.. Validation loss: 2.149..

AUC: 0.78 PR AUC: 0.52

Epoch [39] out of 80

Training loss: 0.870.. Validation loss: 2.147..

AUC: 0.77 PR AUC: 0.51

Epoch [40] out of 80

Training loss: 0.870.. Validation loss: 2.113..

AUC: 0.77 PR AUC: 0.52

Epoch [41] out of 80

Training loss: 0.870.. Validation loss: 2.117..

AUC: 0.77 PR AUC: 0.52

Epoch [42] out of 80

Training loss: 0.869.. Validation loss: 2.088..

AUC: 0.77 PR AUC: 0.52

Epoch [43] out of 80

Training loss: 0.869.. Validation loss: 2.072..

AUC: 0.78 PR AUC: 0.52

Epoch [44] out of 80

Training loss: 0.868.. Validation loss: 2.077..

AUC: 0.76 PR AUC: 0.51

Epoch [45] out of 80

Training loss: 0.868.. Validation loss: 2.104..

AUC: 0.76 PR AUC: 0.52

Epoch [46] out of 80

Training loss: 0.868.. Validation loss: 2.072..

AUC: 0.76 PR AUC: 0.51

Epoch [47] out of 80

Training loss: 0.867.. Validation loss: 2.057..

AUC: 0.76 PR AUC: 0.51

Epoch [48] out of 80

Training loss: 0.867.. Validation loss: 2.040..

AUC: 0.76 PR AUC: 0.51

Epoch [49] out of 80

Training loss: 0.867.. Validation loss: 2.025..

AUC: 0.76 PR AUC: 0.51

Epoch [50] out of 80

Training loss: 0.867.. Validation loss: 1.995..

AUC: 0.77 PR AUC: 0.52

Epoch [51] out of 80

Training loss: 0.866.. Validation loss: 1.966..

AUC: 0.77 PR AUC: 0.52

Epoch [52] out of 80

Training loss: 0.866.. Validation loss: 1.977..

AUC: 0.77 PR AUC: 0.52

Epoch [53] out of 80

Training loss: 0.866.. Validation loss: 1.958..

AUC: 0.77 PR AUC: 0.51

Epoch [54] out of 80

Training loss: 0.865.. Validation loss: 1.936..

AUC: 0.77 PR AUC: 0.52

Epoch [55] out of 80

Training loss: 0.865.. Validation loss: 1.950..

AUC: 0.77 PR AUC: 0.52

Epoch [56] out of 80

Training loss: 0.865.. Validation loss: 1.916..

AUC: 0.78 PR AUC: 0.52

Epoch [57] out of 80

Training loss: 0.865.. Validation loss: 1.863..

AUC: 0.78 PR AUC: 0.52

Epoch [58] out of 80

Training loss: 0.865.. Validation loss: 1.874..

AUC: 0.78 PR AUC: 0.52

Epoch [59] out of 80

Training loss: 0.865.. Validation loss: 1.823..

AUC: 0.78 PR AUC: 0.51

Epoch [60] out of 80

Training loss: 0.865.. Validation loss: 1.796..

AUC: 0.77 PR AUC: 0.51

Epoch [61] out of 80

Training loss: 0.864.. Validation loss: 1.916..

AUC: 0.79 PR AUC: 0.52

Epoch [62] out of 80

Training loss: 0.864.. Validation loss: 1.861..

AUC: 0.79 PR AUC: 0.52

Epoch [63] out of 80

Training loss: 0.864.. Validation loss: 1.876..

AUC: 0.79 PR AUC: 0.52

Epoch [64] out of 80

Training loss: 0.864.. Validation loss: 1.801..

AUC: 0.79 PR AUC: 0.52

Epoch [65] out of 80

Training loss: 0.864.. Validation loss: 1.767..

AUC: 0.79 PR AUC: 0.52

Epoch [66] out of 80

Training loss: 0.863.. Validation loss: 1.735..

AUC: 0.79 PR AUC: 0.52

Epoch [67] out of 80

Training loss: 0.863.. Validation loss: 1.666..

AUC: 0.78 PR AUC: 0.52

Epoch [68] out of 80

Training loss: 0.863.. Validation loss: 1.666..

AUC: 0.79 PR AUC: 0.52

Epoch [69] out of 80

Training loss: 0.863.. Validation loss: 1.607..

AUC: 0.79 PR AUC: 0.52

Epoch [70] out of 80

Training loss: 0.863.. Validation loss: 1.586..

AUC: 0.79 PR AUC: 0.52

Epoch [71] out of 80

Training loss: 0.862.. Validation loss: 1.543..

AUC: 0.79 PR AUC: 0.52

Epoch [72] out of 80

Training loss: 0.862.. Validation loss: 1.521..

AUC: 0.79 PR AUC: 0.52

Epoch [73] out of 80

Training loss: 0.861.. Validation loss: 1.512..

AUC: 0.79 PR AUC: 0.52

Epoch [74] out of 80

Training loss: 0.862.. Validation loss: 1.429..

AUC: 0.78 PR AUC: 0.52

Epoch [75] out of 80

Training loss: 0.861.. Validation loss: 1.452..

AUC: 0.79 PR AUC: 0.52

Epoch [76] out of 80

Training loss: 0.861.. Validation loss: 1.452..

AUC: 0.79 PR AUC: 0.52

Epoch [77] out of 80

Training loss: 0.862.. Validation loss: 1.413..

AUC: 0.79 PR AUC: 0.52

Epoch [78] out of 80

Training loss: 0.860.. Validation loss: 1.414..

AUC: 0.78 PR AUC: 0.52

Epoch [79] out of 80

Training loss: 0.860.. Validation loss: 1.386..

AUC: 0.79 PR AUC: 0.53

Epoch [80] out of 80

Training loss: 0.860.. Validation loss: 1.424..

AUC: 0.79 PR AUC: 0.52

Finished Training

starttime = 2021-01-10 01:53:08.696744

endtime = 2021-01-10 06:06:21.590215

Last model

Area Under ROC Curve: 0.72

Area Under PR Curve(AP): 0.84

Brier score : 0.258

Accuracy for Classifier : 0.70

Cut off: 0.7765

[[1771 228]

[1185 1592]]

Best model

Area Under ROC Curve: 0.75

Area Under PR Curve(AP): 0.86

Brier score : 0.275

Accuracy for Classifier : 0.75

Cut off: 0.8055

[[1859 140]

[1067 1710]]

hypercount: 6

i-Bidir\_2\_lr\_0.0001\_nodrop

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, num\_layers=2, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0, inplace=False)

(relu): ReLU()

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Epoch [1] out of 80

Training loss: 1.148.. Validation loss: 0.830..

AUC: 0.53 PR AUC: 0.22

Epoch [2] out of 80

Training loss: 1.065.. Validation loss: 0.875..

AUC: 0.54 PR AUC: 0.24

Epoch [3] out of 80

Training loss: 1.032.. Validation loss: 0.870..

AUC: 0.60 PR AUC: 0.28

Epoch [4] out of 80

Training loss: 1.020.. Validation loss: 0.782..

AUC: 0.63 PR AUC: 0.31

Epoch [5] out of 80

Training loss: 1.009.. Validation loss: 0.742..

AUC: 0.68 PR AUC: 0.32

Epoch [6] out of 80

Training loss: 1.000.. Validation loss: 0.738..

AUC: 0.72 PR AUC: 0.33

Epoch [7] out of 80

Training loss: 0.992.. Validation loss: 0.758..

AUC: 0.74 PR AUC: 0.34

Epoch [8] out of 80

Training loss: 0.987.. Validation loss: 0.787..

AUC: 0.74 PR AUC: 0.34

Epoch [9] out of 80

Training loss: 0.982.. Validation loss: 0.822..

AUC: 0.73 PR AUC: 0.34

Epoch [10] out of 80

Training loss: 0.979.. Validation loss: 0.872..

AUC: 0.72 PR AUC: 0.34

Epoch [11] out of 80

Training loss: 0.975.. Validation loss: 0.932..

AUC: 0.71 PR AUC: 0.34

Epoch [12] out of 80

Training loss: 0.972.. Validation loss: 0.998..

AUC: 0.69 PR AUC: 0.34

Epoch [13] out of 80

Training loss: 0.969.. Validation loss: 1.063..

AUC: 0.68 PR AUC: 0.34

Epoch [14] out of 80

Training loss: 0.966.. Validation loss: 1.123..

AUC: 0.67 PR AUC: 0.33

Epoch [15] out of 80

Training loss: 0.963.. Validation loss: 1.178..

AUC: 0.67 PR AUC: 0.34

Epoch [16] out of 80

Training loss: 0.960.. Validation loss: 1.230..

AUC: 0.67 PR AUC: 0.34

Epoch [17] out of 80

Training loss: 0.955.. Validation loss: 1.284..

AUC: 0.69 PR AUC: 0.35

Epoch [18] out of 80

Training loss: 0.949.. Validation loss: 1.348..

AUC: 0.70 PR AUC: 0.36

Epoch [19] out of 80

Training loss: 0.943.. Validation loss: 1.412..

AUC: 0.72 PR AUC: 0.37

Epoch [20] out of 80

Training loss: 0.938.. Validation loss: 1.470..

AUC: 0.73 PR AUC: 0.38

Epoch [21] out of 80

Training loss: 0.933.. Validation loss: 1.522..

AUC: 0.75 PR AUC: 0.39

Epoch [22] out of 80

Training loss: 0.929.. Validation loss: 1.556..

AUC: 0.76 PR AUC: 0.40

Epoch [23] out of 80

Training loss: 0.925.. Validation loss: 1.586..

AUC: 0.77 PR AUC: 0.40

Epoch [24] out of 80

Training loss: 0.923.. Validation loss: 1.607..

AUC: 0.77 PR AUC: 0.41

Epoch [25] out of 80

Training loss: 0.921.. Validation loss: 1.624..

AUC: 0.78 PR AUC: 0.42

Epoch [26] out of 80

Training loss: 0.919.. Validation loss: 1.642..

AUC: 0.78 PR AUC: 0.42

Epoch [27] out of 80

Training loss: 0.917.. Validation loss: 1.658..

AUC: 0.79 PR AUC: 0.43

Epoch [28] out of 80

Training loss: 0.915.. Validation loss: 1.673..

AUC: 0.79 PR AUC: 0.43

Epoch [29] out of 80

Training loss: 0.914.. Validation loss: 1.688..

AUC: 0.79 PR AUC: 0.44

Epoch [30] out of 80

Training loss: 0.913.. Validation loss: 1.705..

AUC: 0.79 PR AUC: 0.44

Epoch [31] out of 80

Training loss: 0.912.. Validation loss: 1.718..

AUC: 0.79 PR AUC: 0.45

Epoch [32] out of 80

Training loss: 0.910.. Validation loss: 1.728..

AUC: 0.79 PR AUC: 0.45

Epoch [33] out of 80

Training loss: 0.910.. Validation loss: 1.741..

AUC: 0.79 PR AUC: 0.45

Epoch [34] out of 80

Training loss: 0.909.. Validation loss: 1.749..

AUC: 0.79 PR AUC: 0.45

Epoch [35] out of 80

Training loss: 0.908.. Validation loss: 1.755..

AUC: 0.79 PR AUC: 0.46

Epoch [36] out of 80

Training loss: 0.907.. Validation loss: 1.760..

AUC: 0.79 PR AUC: 0.46

Epoch [37] out of 80

Training loss: 0.906.. Validation loss: 1.762..

AUC: 0.79 PR AUC: 0.46

Epoch [38] out of 80

Training loss: 0.906.. Validation loss: 1.768..

AUC: 0.78 PR AUC: 0.46

Epoch [39] out of 80

Training loss: 0.905.. Validation loss: 1.775..

AUC: 0.78 PR AUC: 0.46

Epoch [40] out of 80

Training loss: 0.904.. Validation loss: 1.778..

AUC: 0.78 PR AUC: 0.46

Epoch [41] out of 80

Training loss: 0.904.. Validation loss: 1.779..

AUC: 0.78 PR AUC: 0.47

Epoch [42] out of 80

Training loss: 0.903.. Validation loss: 1.780..

AUC: 0.78 PR AUC: 0.47

Epoch [43] out of 80

Training loss: 0.903.. Validation loss: 1.777..

AUC: 0.78 PR AUC: 0.47

Epoch [44] out of 80

Training loss: 0.902.. Validation loss: 1.774..

AUC: 0.77 PR AUC: 0.47

Epoch [45] out of 80

Training loss: 0.901.. Validation loss: 1.770..

AUC: 0.77 PR AUC: 0.47

Epoch [46] out of 80

Training loss: 0.901.. Validation loss: 1.762..

AUC: 0.77 PR AUC: 0.47

Epoch [47] out of 80

Training loss: 0.901.. Validation loss: 1.758..

AUC: 0.77 PR AUC: 0.47

Epoch [48] out of 80

Training loss: 0.900.. Validation loss: 1.751..

AUC: 0.77 PR AUC: 0.47

Epoch [49] out of 80

Training loss: 0.900.. Validation loss: 1.742..

AUC: 0.77 PR AUC: 0.48

Epoch [50] out of 80

Training loss: 0.899.. Validation loss: 1.734..

AUC: 0.77 PR AUC: 0.48

Epoch [51] out of 80

Training loss: 0.899.. Validation loss: 1.727..

AUC: 0.77 PR AUC: 0.48

Epoch [52] out of 80

Training loss: 0.898.. Validation loss: 1.719..

AUC: 0.77 PR AUC: 0.48

Epoch [53] out of 80

Training loss: 0.898.. Validation loss: 1.712..

AUC: 0.77 PR AUC: 0.48

Epoch [54] out of 80

Training loss: 0.897.. Validation loss: 1.702..

AUC: 0.78 PR AUC: 0.48

Epoch [55] out of 80

Training loss: 0.897.. Validation loss: 1.692..

AUC: 0.78 PR AUC: 0.48

Epoch [56] out of 80

Training loss: 0.897.. Validation loss: 1.681..

AUC: 0.78 PR AUC: 0.49

Epoch [57] out of 80

Training loss: 0.896.. Validation loss: 1.670..

AUC: 0.78 PR AUC: 0.49

Epoch [58] out of 80

Training loss: 0.896.. Validation loss: 1.663..

AUC: 0.78 PR AUC: 0.49

Epoch [59] out of 80

Training loss: 0.896.. Validation loss: 1.651..

AUC: 0.78 PR AUC: 0.49

Epoch [60] out of 80

Training loss: 0.895.. Validation loss: 1.639..

AUC: 0.78 PR AUC: 0.49

Epoch [61] out of 80

Training loss: 0.895.. Validation loss: 1.628..

AUC: 0.78 PR AUC: 0.49

Epoch [62] out of 80

Training loss: 0.895.. Validation loss: 1.616..

AUC: 0.79 PR AUC: 0.49

Epoch [63] out of 80

Training loss: 0.894.. Validation loss: 1.606..

AUC: 0.79 PR AUC: 0.49

Epoch [64] out of 80

Training loss: 0.894.. Validation loss: 1.597..

AUC: 0.79 PR AUC: 0.49

Epoch [65] out of 80

Training loss: 0.894.. Validation loss: 1.588..

AUC: 0.79 PR AUC: 0.50

Epoch [66] out of 80

Training loss: 0.893.. Validation loss: 1.578..

AUC: 0.79 PR AUC: 0.50

Epoch [67] out of 80

Training loss: 0.893.. Validation loss: 1.571..

AUC: 0.79 PR AUC: 0.50

Epoch [68] out of 80

Training loss: 0.893.. Validation loss: 1.562..

AUC: 0.79 PR AUC: 0.50

Epoch [69] out of 80

Training loss: 0.893.. Validation loss: 1.554..

AUC: 0.80 PR AUC: 0.50

Epoch [70] out of 80

Training loss: 0.892.. Validation loss: 1.545..

AUC: 0.80 PR AUC: 0.50

Epoch [71] out of 80

Training loss: 0.892.. Validation loss: 1.539..

AUC: 0.80 PR AUC: 0.50

Epoch [72] out of 80

Training loss: 0.892.. Validation loss: 1.532..

AUC: 0.80 PR AUC: 0.50

Epoch [73] out of 80

Training loss: 0.892.. Validation loss: 1.526..

AUC: 0.80 PR AUC: 0.50

Epoch [74] out of 80

Training loss: 0.891.. Validation loss: 1.519..

AUC: 0.80 PR AUC: 0.50

Epoch [75] out of 80

Training loss: 0.891.. Validation loss: 1.516..

AUC: 0.80 PR AUC: 0.50

Epoch [76] out of 80

Training loss: 0.891.. Validation loss: 1.510..

AUC: 0.81 PR AUC: 0.50

Epoch [77] out of 80

Training loss: 0.890.. Validation loss: 1.509..

AUC: 0.81 PR AUC: 0.50

Epoch [78] out of 80

Training loss: 0.890.. Validation loss: 1.505..

AUC: 0.81 PR AUC: 0.50

Epoch [79] out of 80

Training loss: 0.890.. Validation loss: 1.499..

AUC: 0.81 PR AUC: 0.50

Epoch [80] out of 80

Training loss: 0.890.. Validation loss: 1.492..

AUC: 0.81 PR AUC: 0.50

Finished Training

starttime = 2021-01-10 06:06:22.685395

endtime = 2021-01-10 10:19:29.981535

Last model

Area Under ROC Curve: 0.60

Area Under PR Curve(AP): 0.78

Brier score : 0.315

Accuracy for Classifier : 0.66

Cut off: 0.8528

[[1934 65]

[1548 1229]]

Best model

Area Under ROC Curve: 0.60

Area Under PR Curve(AP): 0.78

Brier score : 0.315

Accuracy for Classifier : 0.66

Cut off: 0.8528

[[1934 65]

[1548 1229]]

hypercount: 7

i-Bidir\_2\_lr\_0.001\_drop0.2

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, num\_layers=2, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0.2, inplace=False)

(relu): ReLU()

)

Epoch [1] out of 80

Training loss: 1.078.. Validation loss: 0.591..

AUC: 0.89 PR AUC: 0.26

Epoch [2] out of 80

Training loss: 1.034.. Validation loss: 0.519..

AUC: 0.90 PR AUC: 0.34

Epoch [3] out of 80

Training loss: 1.006.. Validation loss: 0.505..

AUC: 0.89 PR AUC: 0.35

Epoch [4] out of 80

Training loss: 0.992.. Validation loss: 0.514..

AUC: 0.87 PR AUC: 0.36

Epoch [5] out of 80

Training loss: 0.988.. Validation loss: 0.505..

AUC: 0.85 PR AUC: 0.39

Epoch [6] out of 80

Training loss: 0.983.. Validation loss: 0.528..

AUC: 0.85 PR AUC: 0.39

Epoch [7] out of 80

Training loss: 0.981.. Validation loss: 0.507..

AUC: 0.87 PR AUC: 0.40

Epoch [8] out of 80

Training loss: 0.978.. Validation loss: 0.530..

AUC: 0.86 PR AUC: 0.41

Epoch [9] out of 80

Training loss: 0.975.. Validation loss: 0.513..

AUC: 0.81 PR AUC: 0.40

Epoch [10] out of 80

Training loss: 0.973.. Validation loss: 0.504..

AUC: 0.87 PR AUC: 0.42

Epoch [11] out of 80

Training loss: 0.971.. Validation loss: 0.518..

AUC: 0.84 PR AUC: 0.41

Epoch [12] out of 80

Training loss: 0.970.. Validation loss: 0.527..

AUC: 0.80 PR AUC: 0.37

Epoch [13] out of 80

Training loss: 0.970.. Validation loss: 0.542..

AUC: 0.78 PR AUC: 0.36

Epoch [14] out of 80

Training loss: 0.972.. Validation loss: 0.549..

AUC: 0.76 PR AUC: 0.36

Epoch [15] out of 80

Training loss: 0.968.. Validation loss: 0.532..

AUC: 0.79 PR AUC: 0.40

Epoch [16] out of 80

Training loss: 0.965.. Validation loss: 0.540..

AUC: 0.75 PR AUC: 0.37

Epoch [17] out of 80

Training loss: 0.964.. Validation loss: 0.527..

AUC: 0.76 PR AUC: 0.37

Epoch [18] out of 80

Training loss: 0.964.. Validation loss: 0.566..

AUC: 0.79 PR AUC: 0.39

Epoch [19] out of 80

Training loss: 0.962.. Validation loss: 0.581..

AUC: 0.76 PR AUC: 0.35

Epoch [20] out of 80

Training loss: 0.960.. Validation loss: 0.528..

AUC: 0.76 PR AUC: 0.38

Epoch [21] out of 80

Training loss: 0.959.. Validation loss: 0.629..

AUC: 0.79 PR AUC: 0.40

Epoch [22] out of 80

Training loss: 0.958.. Validation loss: 0.690..

AUC: 0.77 PR AUC: 0.39

Epoch [23] out of 80

Training loss: 0.958.. Validation loss: 0.686..

AUC: 0.77 PR AUC: 0.41

Epoch [24] out of 80

Training loss: 0.957.. Validation loss: 0.730..

AUC: 0.80 PR AUC: 0.41

Epoch [25] out of 80

Training loss: 0.956.. Validation loss: 0.949..

AUC: 0.81 PR AUC: 0.43

Epoch [26] out of 80

Training loss: 0.954.. Validation loss: 0.851..

AUC: 0.81 PR AUC: 0.42

Epoch [27] out of 80

Training loss: 0.953.. Validation loss: 1.027..

AUC: 0.81 PR AUC: 0.43

Epoch [28] out of 80

Training loss: 0.954.. Validation loss: 1.090..

AUC: 0.80 PR AUC: 0.44

Epoch [29] out of 80

Training loss: 0.951.. Validation loss: 1.074..

AUC: 0.78 PR AUC: 0.44

Epoch [30] out of 80

Training loss: 0.953.. Validation loss: 0.807..

AUC: 0.82 PR AUC: 0.46

Epoch [31] out of 80

Training loss: 0.950.. Validation loss: 0.896..

AUC: 0.80 PR AUC: 0.45

Epoch [32] out of 80

Training loss: 0.951.. Validation loss: 0.942..

AUC: 0.80 PR AUC: 0.46

Epoch [33] out of 80

Training loss: 0.949.. Validation loss: 0.929..

AUC: 0.80 PR AUC: 0.45

Epoch [34] out of 80

Training loss: 0.949.. Validation loss: 1.121..

AUC: 0.81 PR AUC: 0.43

Epoch [35] out of 80

Training loss: 0.947.. Validation loss: 0.838..

AUC: 0.81 PR AUC: 0.45

Epoch [36] out of 80

Training loss: 0.946.. Validation loss: 0.847..

AUC: 0.84 PR AUC: 0.45

Epoch [37] out of 80

Training loss: 0.947.. Validation loss: 1.170..

AUC: 0.81 PR AUC: 0.45

Epoch [38] out of 80

Training loss: 0.947.. Validation loss: 0.828..

AUC: 0.81 PR AUC: 0.45

Epoch [39] out of 80

Training loss: 0.946.. Validation loss: 0.763..

AUC: 0.83 PR AUC: 0.45

Epoch [40] out of 80

Training loss: 0.946.. Validation loss: 0.708..

AUC: 0.84 PR AUC: 0.44

Epoch [41] out of 80

Training loss: 0.945.. Validation loss: 0.783..

AUC: 0.82 PR AUC: 0.43

Epoch [42] out of 80

Training loss: 0.946.. Validation loss: 0.640..

AUC: 0.86 PR AUC: 0.40

Epoch [43] out of 80

Training loss: 0.943.. Validation loss: 0.609..

AUC: 0.84 PR AUC: 0.42

Epoch [44] out of 80

Training loss: 0.944.. Validation loss: 0.532..

AUC: 0.85 PR AUC: 0.43

Epoch [45] out of 80

Training loss: 0.943.. Validation loss: 0.612..

AUC: 0.86 PR AUC: 0.42

Epoch [46] out of 80

Training loss: 0.941.. Validation loss: 0.774..

AUC: 0.86 PR AUC: 0.38

Epoch [47] out of 80

Training loss: 0.942.. Validation loss: 0.645..

AUC: 0.85 PR AUC: 0.41

Epoch [48] out of 80

Training loss: 0.942.. Validation loss: 0.618..

AUC: 0.84 PR AUC: 0.42

Epoch [49] out of 80

Training loss: 0.940.. Validation loss: 0.523..

AUC: 0.86 PR AUC: 0.40

Epoch [50] out of 80

Training loss: 0.940.. Validation loss: 0.617..

AUC: 0.84 PR AUC: 0.39

Epoch [51] out of 80

Training loss: 0.940.. Validation loss: 0.731..

AUC: 0.84 PR AUC: 0.40

Epoch [52] out of 80

Training loss: 0.940.. Validation loss: 0.779..

AUC: 0.82 PR AUC: 0.41

Epoch [53] out of 80

Training loss: 0.940.. Validation loss: 0.659..

AUC: 0.82 PR AUC: 0.42

Epoch [54] out of 80

Training loss: 0.939.. Validation loss: 0.739..

AUC: 0.82 PR AUC: 0.42

Epoch [55] out of 80

Training loss: 0.939.. Validation loss: 0.666..

AUC: 0.82 PR AUC: 0.41

Epoch [56] out of 80

Training loss: 0.938.. Validation loss: 0.780..

AUC: 0.83 PR AUC: 0.40

Epoch [57] out of 80

Training loss: 0.936.. Validation loss: 0.740..

AUC: 0.85 PR AUC: 0.39

Epoch [58] out of 80

Training loss: 0.937.. Validation loss: 0.799..

AUC: 0.83 PR AUC: 0.37

Epoch [59] out of 80

Training loss: 0.938.. Validation loss: 0.747..

AUC: 0.84 PR AUC: 0.39

Epoch [60] out of 80

Training loss: 0.937.. Validation loss: 0.693..

AUC: 0.84 PR AUC: 0.40

Epoch [61] out of 80

Training loss: 0.938.. Validation loss: 0.695..

AUC: 0.83 PR AUC: 0.39

Epoch [62] out of 80

Training loss: 0.937.. Validation loss: 0.816..

AUC: 0.83 PR AUC: 0.39

Epoch [63] out of 80

Training loss: 0.936.. Validation loss: 0.723..

AUC: 0.82 PR AUC: 0.39

Epoch [64] out of 80

Training loss: 0.936.. Validation loss: 0.754..

AUC: 0.84 PR AUC: 0.36

Epoch [65] out of 80

Training loss: 0.937.. Validation loss: 0.765..

AUC: 0.82 PR AUC: 0.40

Epoch [66] out of 80

Training loss: 0.936.. Validation loss: 0.705..

AUC: 0.82 PR AUC: 0.40

Epoch [67] out of 80

Training loss: 0.935.. Validation loss: 0.697..

AUC: 0.82 PR AUC: 0.39

Epoch [68] out of 80

Training loss: 0.934.. Validation loss: 0.730..

AUC: 0.82 PR AUC: 0.39

Epoch [69] out of 80

Training loss: 0.935.. Validation loss: 0.769..

AUC: 0.83 PR AUC: 0.37

Epoch [70] out of 80

Training loss: 0.936.. Validation loss: 0.723..

AUC: 0.81 PR AUC: 0.40

Epoch [71] out of 80

Training loss: 0.935.. Validation loss: 0.750..

AUC: 0.82 PR AUC: 0.37

Epoch [72] out of 80

Training loss: 0.936.. Validation loss: 0.730..

AUC: 0.82 PR AUC: 0.39

Epoch [73] out of 80

Training loss: 0.934.. Validation loss: 0.747..

AUC: 0.83 PR AUC: 0.41

Epoch [74] out of 80

Training loss: 0.934.. Validation loss: 0.742..

AUC: 0.84 PR AUC: 0.39

Epoch [75] out of 80

Training loss: 0.934.. Validation loss: 0.676..

AUC: 0.84 PR AUC: 0.41

Epoch [76] out of 80

Training loss: 0.934.. Validation loss: 0.633..

AUC: 0.82 PR AUC: 0.41

Epoch [77] out of 80

Training loss: 0.934.. Validation loss: 0.665..

AUC: 0.84 PR AUC: 0.40

Epoch [78] out of 80

Training loss: 0.935.. Validation loss: 0.697..

AUC: 0.83 PR AUC: 0.39

Epoch [79] out of 80

Training loss: 0.934.. Validation loss: 0.670..

AUC: 0.84 PR AUC: 0.39

Epoch [80] out of 80

Training loss: 0.934.. Validation loss: 0.689..

AUC: 0.84 PR AUC: 0.38

Finished Training

starttime = 2021-01-10 10:19:31.053590

endtime = 2021-01-10 14:49:25.402017

Last model

Area Under ROC Curve: 0.66

Area Under PR Curve(AP): 0.80

Brier score : 0.228

Accuracy for Classifier : 0.63

Cut off: 0.5965

[[1925 74]

[1680 1097]]

Best model

Area Under ROC Curve: 0.73

Area Under PR Curve(AP): 0.80

Brier score : 0.266

Accuracy for Classifier : 0.71

Cut off: 0.1847

[[1300 699]

[ 708 2069]]

hypercount:

i-Bidir\_2\_lr\_0.0001\_drop0.2

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, num\_layers=2, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0.2, inplace=False)

(relu): ReLU()

)

Epoch [1] out of 80

Training loss: 1.186.. Validation loss: 0.779..

AUC: 0.35 PR AUC: 0.15

Epoch [2] out of 80

Training loss: 1.112.. Validation loss: 0.743..

AUC: 0.41 PR AUC: 0.20

Epoch [3] out of 80

Training loss: 1.078.. Validation loss: 0.698..

AUC: 0.49 PR AUC: 0.23

Epoch [4] out of 80

Training loss: 1.065.. Validation loss: 0.680..

AUC: 0.58 PR AUC: 0.25

Epoch [5] out of 80

Training loss: 1.056.. Validation loss: 0.673..

AUC: 0.66 PR AUC: 0.26

Epoch [6] out of 80

Training loss: 1.051.. Validation loss: 0.684..

AUC: 0.70 PR AUC: 0.28

Epoch [7] out of 80

Training loss: 1.047.. Validation loss: 0.697..

AUC: 0.78 PR AUC: 0.29

Epoch [8] out of 80

Training loss: 1.042.. Validation loss: 0.684..

AUC: 0.80 PR AUC: 0.30

Epoch [9] out of 80

Training loss: 1.038.. Validation loss: 0.709..

AUC: 0.84 PR AUC: 0.31

Epoch [10] out of 80

Training loss: 1.035.. Validation loss: 0.709..

AUC: 0.86 PR AUC: 0.32

Epoch [11] out of 80

Training loss: 1.032.. Validation loss: 0.729..

AUC: 0.87 PR AUC: 0.33

Epoch [12] out of 80

Training loss: 1.030.. Validation loss: 0.735..

AUC: 0.88 PR AUC: 0.33

Epoch [13] out of 80

Training loss: 1.028.. Validation loss: 0.729..

AUC: 0.89 PR AUC: 0.33

Epoch [14] out of 80

Training loss: 1.027.. Validation loss: 0.724..

AUC: 0.89 PR AUC: 0.34

Epoch [15] out of 80

Training loss: 1.024.. Validation loss: 0.730..

AUC: 0.89 PR AUC: 0.34

Epoch [16] out of 80

Training loss: 1.022.. Validation loss: 0.783..

AUC: 0.90 PR AUC: 0.34

Epoch [17] out of 80

Training loss: 1.020.. Validation loss: 0.771..

AUC: 0.90 PR AUC: 0.35

Epoch [18] out of 80

Training loss: 1.019.. Validation loss: 0.787..

AUC: 0.90 PR AUC: 0.35

Epoch [19] out of 80

Training loss: 1.015.. Validation loss: 0.816..

AUC: 0.90 PR AUC: 0.35

Epoch [20] out of 80

Training loss: 1.014.. Validation loss: 0.812..

AUC: 0.90 PR AUC: 0.35

Epoch [21] out of 80

Training loss: 1.013.. Validation loss: 0.832..

AUC: 0.90 PR AUC: 0.35

Epoch [22] out of 80

Training loss: 1.010.. Validation loss: 0.865..

AUC: 0.90 PR AUC: 0.35

Epoch [23] out of 80

Training loss: 1.008.. Validation loss: 0.883..

AUC: 0.90 PR AUC: 0.35

Epoch [24] out of 80

Training loss: 1.004.. Validation loss: 0.921..

AUC: 0.90 PR AUC: 0.35

Epoch [25] out of 80

Training loss: 1.003.. Validation loss: 0.930..

AUC: 0.91 PR AUC: 0.35

Epoch [26] out of 80

Training loss: 1.000.. Validation loss: 0.955..

AUC: 0.91 PR AUC: 0.36

Epoch [27] out of 80

Training loss: 0.997.. Validation loss: 0.996..

AUC: 0.91 PR AUC: 0.35

Epoch [28] out of 80

Training loss: 0.993.. Validation loss: 1.034..

AUC: 0.91 PR AUC: 0.35

Epoch [29] out of 80

Training loss: 0.991.. Validation loss: 1.080..

AUC: 0.91 PR AUC: 0.35

Epoch [30] out of 80

Training loss: 0.989.. Validation loss: 1.119..

AUC: 0.91 PR AUC: 0.35

Epoch [31] out of 80

Training loss: 0.987.. Validation loss: 1.088..

AUC: 0.91 PR AUC: 0.36

Epoch [32] out of 80

Training loss: 0.984.. Validation loss: 1.142..

AUC: 0.91 PR AUC: 0.35

Epoch [33] out of 80

Training loss: 0.982.. Validation loss: 1.167..

AUC: 0.91 PR AUC: 0.35

Epoch [34] out of 80

Training loss: 0.980.. Validation loss: 1.165..

AUC: 0.91 PR AUC: 0.35

Epoch [35] out of 80

Training loss: 0.977.. Validation loss: 1.233..

AUC: 0.91 PR AUC: 0.34

Epoch [36] out of 80

Training loss: 0.977.. Validation loss: 1.253..

AUC: 0.91 PR AUC: 0.35

Epoch [37] out of 80

Training loss: 0.975.. Validation loss: 1.299..

AUC: 0.91 PR AUC: 0.35

Epoch [38] out of 80

Training loss: 0.973.. Validation loss: 1.307..

AUC: 0.91 PR AUC: 0.36

Epoch [39] out of 80

Training loss: 0.974.. Validation loss: 1.371..

AUC: 0.91 PR AUC: 0.34

Epoch [40] out of 80

Training loss: 0.972.. Validation loss: 1.413..

AUC: 0.91 PR AUC: 0.34

Epoch [41] out of 80

Training loss: 0.971.. Validation loss: 1.395..

AUC: 0.91 PR AUC: 0.35

Epoch [42] out of 80

Training loss: 0.970.. Validation loss: 1.378..

AUC: 0.91 PR AUC: 0.36

Epoch [43] out of 80

Training loss: 0.969.. Validation loss: 1.460..

AUC: 0.91 PR AUC: 0.35

Epoch [44] out of 80

Training loss: 0.969.. Validation loss: 1.514..

AUC: 0.91 PR AUC: 0.36

Epoch [45] out of 80

Training loss: 0.969.. Validation loss: 1.572..

AUC: 0.91 PR AUC: 0.36

Epoch [46] out of 80

Training loss: 0.968.. Validation loss: 1.572..

AUC: 0.91 PR AUC: 0.37

Epoch [47] out of 80

Training loss: 0.967.. Validation loss: 1.553..

AUC: 0.91 PR AUC: 0.38

Epoch [48] out of 80

Training loss: 0.966.. Validation loss: 1.658..

AUC: 0.91 PR AUC: 0.37

Epoch [49] out of 80

Training loss: 0.966.. Validation loss: 1.698..

AUC: 0.91 PR AUC: 0.38

Epoch [50] out of 80

Training loss: 0.965.. Validation loss: 1.692..

AUC: 0.91 PR AUC: 0.39

Epoch [51] out of 80

Training loss: 0.964.. Validation loss: 1.743..

AUC: 0.91 PR AUC: 0.39

Epoch [52] out of 80

Training loss: 0.964.. Validation loss: 1.749..

AUC: 0.91 PR AUC: 0.40

Epoch [53] out of 80

Training loss: 0.964.. Validation loss: 1.810..

AUC: 0.91 PR AUC: 0.41

Epoch [54] out of 80

Training loss: 0.963.. Validation loss: 1.781..

AUC: 0.90 PR AUC: 0.44

Epoch [55] out of 80

Training loss: 0.961.. Validation loss: 1.815..

AUC: 0.90 PR AUC: 0.44

Epoch [56] out of 80

Training loss: 0.962.. Validation loss: 1.828..

AUC: 0.90 PR AUC: 0.45

Epoch [57] out of 80

Training loss: 0.960.. Validation loss: 1.887..

AUC: 0.90 PR AUC: 0.46

Epoch [58] out of 80

Training loss: 0.961.. Validation loss: 1.867..

AUC: 0.90 PR AUC: 0.47

Epoch [59] out of 80

Training loss: 0.961.. Validation loss: 1.887..

AUC: 0.90 PR AUC: 0.47

Epoch [60] out of 80

Training loss: 0.961.. Validation loss: 1.857..

AUC: 0.89 PR AUC: 0.47

Epoch [61] out of 80

Training loss: 0.959.. Validation loss: 1.903..

AUC: 0.89 PR AUC: 0.47

Epoch [62] out of 80

Training loss: 0.957.. Validation loss: 1.931..

AUC: 0.90 PR AUC: 0.47

Epoch [63] out of 80

Training loss: 0.958.. Validation loss: 1.922..

AUC: 0.89 PR AUC: 0.47

Epoch [64] out of 80

Training loss: 0.958.. Validation loss: 1.956..

AUC: 0.89 PR AUC: 0.47

Epoch [65] out of 80

Training loss: 0.956.. Validation loss: 1.945..

AUC: 0.89 PR AUC: 0.47

Epoch [66] out of 80

Training loss: 0.956.. Validation loss: 1.972..

AUC: 0.89 PR AUC: 0.46

Epoch [67] out of 80

Training loss: 0.957.. Validation loss: 1.951..

AUC: 0.88 PR AUC: 0.47

Epoch [68] out of 80

Training loss: 0.956.. Validation loss: 1.992..

AUC: 0.89 PR AUC: 0.47

Epoch [69] out of 80

Training loss: 0.956.. Validation loss: 2.052..

AUC: 0.90 PR AUC: 0.46

Epoch [70] out of 80

Training loss: 0.957.. Validation loss: 2.000..

AUC: 0.89 PR AUC: 0.48

Epoch [71] out of 80

Training loss: 0.955.. Validation loss: 2.021..

AUC: 0.89 PR AUC: 0.47

Epoch [72] out of 80

Training loss: 0.954.. Validation loss: 2.057..

AUC: 0.89 PR AUC: 0.47

Epoch [73] out of 80

Training loss: 0.956.. Validation loss: 1.999..

AUC: 0.88 PR AUC: 0.48

Epoch [74] out of 80

Training loss: 0.955.. Validation loss: 2.044..

AUC: 0.89 PR AUC: 0.47

Epoch [75] out of 80

Training loss: 0.955.. Validation loss: 2.004..

AUC: 0.87 PR AUC: 0.49

Epoch [76] out of 80

Training loss: 0.953.. Validation loss: 2.064..

AUC: 0.88 PR AUC: 0.48

Epoch [77] out of 80

Training loss: 0.952.. Validation loss: 2.062..

AUC: 0.88 PR AUC: 0.47

Epoch [78] out of 80

Training loss: 0.953.. Validation loss: 2.074..

AUC: 0.88 PR AUC: 0.47

Epoch [79] out of 80

Training loss: 0.953.. Validation loss: 2.090..

AUC: 0.88 PR AUC: 0.47

Epoch [80] out of 80

Training loss: 0.953.. Validation loss: 2.067..

AUC: 0.87 PR AUC: 0.48

Finished Training

starttime = 2021-01-10 15:31:36.841908

endtime = 2021-01-10 19:56:44.553490

Last model

Area Under ROC Curve: 0.63

Area Under PR Curve(AP): 0.77

Brier score : 0.337

Accuracy for Classifier : 0.63

Cut off: 0.9485

[[1962 37]

[1723 1054]]

Best model

Area Under ROC Curve: 0.78

Area Under PR Curve(AP): 0.87

Brier score : 0.211

Accuracy for Classifier : 0.76

Cut off: 0.7147

[[1927 72]

[1074 1703]]

hypercount: 1

i-Bidir\_3\_lr\_0.001\_nodrop

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, num\_layers=3, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0, inplace=False)

(relu): ReLU()

)

Epoch [1] out of 80

Training loss: 1.060.. Validation loss: 0.556..

AUC: 0.90 PR AUC: 0.33

Epoch [2] out of 80

Training loss: 0.997.. Validation loss: 0.476..

AUC: 0.92 PR AUC: 0.39

Epoch [3] out of 80

Training loss: 0.971.. Validation loss: 0.446..

AUC: 0.86 PR AUC: 0.42

Epoch [4] out of 80

Training loss: 0.955.. Validation loss: 0.402..

AUC: 0.91 PR AUC: 0.45

Epoch [5] out of 80

Training loss: 0.939.. Validation loss: 0.383..

AUC: 0.91 PR AUC: 0.48

Epoch [6] out of 80

Training loss: 0.921.. Validation loss: 0.374..

AUC: 0.91 PR AUC: 0.44

Epoch [7] out of 80

Training loss: 0.910.. Validation loss: 0.369..

AUC: 0.92 PR AUC: 0.46

Epoch [8] out of 80

Training loss: 0.904.. Validation loss: 0.367..

AUC: 0.92 PR AUC: 0.45

Epoch [9] out of 80

Training loss: 0.900.. Validation loss: 0.365..

AUC: 0.93 PR AUC: 0.46

Epoch [10] out of 80

Training loss: 0.895.. Validation loss: 0.385..

AUC: 0.92 PR AUC: 0.44

Epoch [11] out of 80

Training loss: 0.892.. Validation loss: 0.425..

AUC: 0.90 PR AUC: 0.43

Epoch [12] out of 80

Training loss: 0.889.. Validation loss: 0.468..

AUC: 0.89 PR AUC: 0.40

Epoch [13] out of 80

Training loss: 0.886.. Validation loss: 0.506..

AUC: 0.88 PR AUC: 0.40

Epoch [14] out of 80

Training loss: 0.884.. Validation loss: 0.527..

AUC: 0.88 PR AUC: 0.40

Epoch [15] out of 80

Training loss: 0.883.. Validation loss: 0.529..

AUC: 0.89 PR AUC: 0.41

Epoch [16] out of 80

Training loss: 0.881.. Validation loss: 0.528..

AUC: 0.90 PR AUC: 0.40

Epoch [17] out of 80

Training loss: 0.880.. Validation loss: 0.528..

AUC: 0.90 PR AUC: 0.42

Epoch [18] out of 80

Training loss: 0.879.. Validation loss: 0.521..

AUC: 0.91 PR AUC: 0.43

Epoch [19] out of 80

Training loss: 0.878.. Validation loss: 0.504..

AUC: 0.91 PR AUC: 0.43

Epoch [20] out of 80

Training loss: 0.876.. Validation loss: 0.514..

AUC: 0.91 PR AUC: 0.43

Epoch [21] out of 80

Training loss: 0.875.. Validation loss: 0.515..

AUC: 0.91 PR AUC: 0.43

Epoch [22] out of 80

Training loss: 0.874.. Validation loss: 0.540..

AUC: 0.91 PR AUC: 0.42

Epoch [23] out of 80

Training loss: 0.873.. Validation loss: 0.548..

AUC: 0.91 PR AUC: 0.42

Epoch [24] out of 80

Training loss: 0.871.. Validation loss: 0.581..

AUC: 0.91 PR AUC: 0.41

Epoch [25] out of 80

Training loss: 0.870.. Validation loss: 0.593..

AUC: 0.91 PR AUC: 0.40

Epoch [26] out of 80

Training loss: 0.869.. Validation loss: 0.598..

AUC: 0.91 PR AUC: 0.41

Epoch [27] out of 80

Training loss: 0.867.. Validation loss: 0.601..

AUC: 0.91 PR AUC: 0.41

Epoch [28] out of 80

Training loss: 0.866.. Validation loss: 0.613..

AUC: 0.91 PR AUC: 0.41

Epoch [29] out of 80

Training loss: 0.866.. Validation loss: 0.616..

AUC: 0.91 PR AUC: 0.41

Epoch [30] out of 80

Training loss: 0.865.. Validation loss: 0.585..

AUC: 0.91 PR AUC: 0.41

Epoch [31] out of 80

Training loss: 0.863.. Validation loss: 0.582..

AUC: 0.92 PR AUC: 0.40

Epoch [32] out of 80

Training loss: 0.862.. Validation loss: 0.523..

AUC: 0.93 PR AUC: 0.42

Epoch [33] out of 80

Training loss: 0.861.. Validation loss: 0.501..

AUC: 0.93 PR AUC: 0.45

Epoch [34] out of 80

Training loss: 0.860.. Validation loss: 0.479..

AUC: 0.93 PR AUC: 0.45

Epoch [35] out of 80

Training loss: 0.859.. Validation loss: 0.449..

AUC: 0.93 PR AUC: 0.45

Epoch [36] out of 80

Training loss: 0.859.. Validation loss: 0.435..

AUC: 0.93 PR AUC: 0.47

Epoch [37] out of 80

Training loss: 0.859.. Validation loss: 0.447..

AUC: 0.93 PR AUC: 0.49

Epoch [38] out of 80

Training loss: 0.858.. Validation loss: 0.402..

AUC: 0.93 PR AUC: 0.49

Epoch [39] out of 80

Training loss: 0.858.. Validation loss: 1.005..

AUC: 0.80 PR AUC: 0.45

Epoch [40] out of 80

Training loss: 0.856.. Validation loss: 0.864..

AUC: 0.82 PR AUC: 0.48

Epoch [41] out of 80

Training loss: 0.856.. Validation loss: 0.865..

AUC: 0.81 PR AUC: 0.47

Epoch [42] out of 80

Training loss: 0.856.. Validation loss: 0.927..

AUC: 0.81 PR AUC: 0.48

Epoch [43] out of 80

Training loss: 0.855.. Validation loss: 1.191..

AUC: 0.77 PR AUC: 0.44

Epoch [44] out of 80

Training loss: 0.855.. Validation loss: 0.874..

AUC: 0.82 PR AUC: 0.48

Epoch [45] out of 80

Training loss: 0.854.. Validation loss: 0.931..

AUC: 0.82 PR AUC: 0.49

Epoch [46] out of 80

Training loss: 0.854.. Validation loss: 1.125..

AUC: 0.80 PR AUC: 0.47

Epoch [47] out of 80

Training loss: 0.853.. Validation loss: 0.452..

AUC: 0.91 PR AUC: 0.50

Epoch [48] out of 80

Training loss: 0.853.. Validation loss: 0.907..

AUC: 0.83 PR AUC: 0.49

Epoch [49] out of 80

Training loss: 0.852.. Validation loss: 1.056..

AUC: 0.81 PR AUC: 0.48

Epoch [50] out of 80

Training loss: 0.853.. Validation loss: 1.106..

AUC: 0.80 PR AUC: 0.47

Epoch [51] out of 80

Training loss: 0.852.. Validation loss: 1.090..

AUC: 0.80 PR AUC: 0.48

Epoch [52] out of 80

Training loss: 0.852.. Validation loss: 1.044..

AUC: 0.81 PR AUC: 0.49

Epoch [53] out of 80

Training loss: 0.851.. Validation loss: 1.108..

AUC: 0.79 PR AUC: 0.48

Epoch [54] out of 80

Training loss: 0.851.. Validation loss: 0.885..

AUC: 0.82 PR AUC: 0.49

Epoch [55] out of 80

Training loss: 0.851.. Validation loss: 1.110..

AUC: 0.78 PR AUC: 0.48

Epoch [56] out of 80

Training loss: 0.850.. Validation loss: 0.446..

AUC: 0.92 PR AUC: 0.53

Epoch [57] out of 80

Training loss: 0.851.. Validation loss: 1.189..

AUC: 0.78 PR AUC: 0.48

Epoch [58] out of 80

Training loss: 0.851.. Validation loss: 1.185..

AUC: 0.78 PR AUC: 0.48

Epoch [59] out of 80

Training loss: 0.850.. Validation loss: 1.093..

AUC: 0.80 PR AUC: 0.49

Epoch [60] out of 80

Training loss: 0.850.. Validation loss: 0.747..

AUC: 0.86 PR AUC: 0.49

Epoch [61] out of 80

Training loss: 0.850.. Validation loss: 0.790..

AUC: 0.85 PR AUC: 0.50

Epoch [62] out of 80

Training loss: 0.849.. Validation loss: 1.015..

AUC: 0.80 PR AUC: 0.50

Epoch [63] out of 80

Training loss: 0.850.. Validation loss: 0.708..

AUC: 0.87 PR AUC: 0.49

Epoch [64] out of 80

Training loss: 0.848.. Validation loss: 0.710..

AUC: 0.87 PR AUC: 0.49

Epoch [65] out of 80

Training loss: 0.849.. Validation loss: 0.769..

AUC: 0.84 PR AUC: 0.49

Epoch [66] out of 80

Training loss: 0.849.. Validation loss: 0.649..

AUC: 0.87 PR AUC: 0.49

Epoch [67] out of 80

Training loss: 0.848.. Validation loss: 0.721..

AUC: 0.86 PR AUC: 0.49

Epoch [68] out of 80

Training loss: 0.849.. Validation loss: 0.658..

AUC: 0.88 PR AUC: 0.49

Epoch [69] out of 80

Training loss: 0.848.. Validation loss: 0.712..

AUC: 0.86 PR AUC: 0.50

Epoch [70] out of 80

Training loss: 0.848.. Validation loss: 0.878..

AUC: 0.82 PR AUC: 0.49

Epoch [71] out of 80

Training loss: 0.848.. Validation loss: 0.651..

AUC: 0.87 PR AUC: 0.49

Epoch [72] out of 80

Training loss: 0.847.. Validation loss: 0.643..

AUC: 0.88 PR AUC: 0.50

Epoch [73] out of 80

Training loss: 0.848.. Validation loss: 0.735..

AUC: 0.84 PR AUC: 0.49

Epoch [74] out of 80

Training loss: 0.847.. Validation loss: 0.692..

AUC: 0.85 PR AUC: 0.50

Epoch [75] out of 80

Training loss: 0.847.. Validation loss: 0.620..

AUC: 0.87 PR AUC: 0.50

Epoch [76] out of 80

Training loss: 0.847.. Validation loss: 0.590..

AUC: 0.89 PR AUC: 0.50

Epoch [77] out of 80

Training loss: 0.847.. Validation loss: 0.699..

AUC: 0.85 PR AUC: 0.49

Epoch [78] out of 80

Training loss: 0.846.. Validation loss: 0.754..

AUC: 0.83 PR AUC: 0.49

Epoch [79] out of 80

Training loss: 0.845.. Validation loss: 0.570..

AUC: 0.88 PR AUC: 0.49

Epoch [80] out of 80

Training loss: 0.847.. Validation loss: 0.709..

AUC: 0.83 PR AUC: 0.48

Finished Training

starttime = 2021-01-10 22:59:52.989863

endtime = 2021-01-11 05:16:18.239691

Last model

Area Under ROC Curve: 0.76

Area Under PR Curve(AP): 0.85

Brier score : 0.199

Accuracy for Classifier : 0.71

Cut off: 0.563

[[1807 192]

[1212 1565]]

Best model

Area Under ROC Curve: 0.83

Area Under PR Curve(AP): 0.89

Brier score : 0.202

Accuracy for Classifier : 0.78

Cut off: 0.2428

[[1845 154]

[ 918 1859]]

hypercount: 2

i-Bidir\_3\_lr\_0.0001\_nodrop

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, num\_layers=3, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0, inplace=False)

(relu): ReLU()

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Epoch [1] out of 80

Training loss: 1.135.. Validation loss: 0.726..

AUC: 0.69 PR AUC: 0.29

Epoch [2] out of 80

Training loss: 1.059.. Validation loss: 0.671..

AUC: 0.79 PR AUC: 0.33

Epoch [3] out of 80

Training loss: 1.035.. Validation loss: 0.664..

AUC: 0.79 PR AUC: 0.32

Epoch [4] out of 80

Training loss: 1.021.. Validation loss: 0.798..

AUC: 0.77 PR AUC: 0.32

Epoch [5] out of 80

Training loss: 1.013.. Validation loss: 0.871..

AUC: 0.78 PR AUC: 0.33

Epoch [6] out of 80

Training loss: 1.007.. Validation loss: 0.886..

AUC: 0.80 PR AUC: 0.33

Epoch [7] out of 80

Training loss: 1.002.. Validation loss: 0.849..

AUC: 0.82 PR AUC: 0.34

Epoch [8] out of 80

Training loss: 0.997.. Validation loss: 0.832..

AUC: 0.82 PR AUC: 0.35

Epoch [9] out of 80

Training loss: 0.993.. Validation loss: 0.843..

AUC: 0.83 PR AUC: 0.35

Epoch [10] out of 80

Training loss: 0.988.. Validation loss: 0.916..

AUC: 0.85 PR AUC: 0.36

Epoch [11] out of 80

Training loss: 0.982.. Validation loss: 1.031..

AUC: 0.88 PR AUC: 0.36

Epoch [12] out of 80

Training loss: 0.976.. Validation loss: 1.142..

AUC: 0.89 PR AUC: 0.37

Epoch [13] out of 80

Training loss: 0.970.. Validation loss: 1.246..

AUC: 0.89 PR AUC: 0.38

Epoch [14] out of 80

Training loss: 0.962.. Validation loss: 1.321..

AUC: 0.90 PR AUC: 0.39

Epoch [15] out of 80

Training loss: 0.955.. Validation loss: 1.427..

AUC: 0.90 PR AUC: 0.40

Epoch [16] out of 80

Training loss: 0.946.. Validation loss: 1.578..

AUC: 0.90 PR AUC: 0.41

Epoch [17] out of 80

Training loss: 0.938.. Validation loss: 1.723..

AUC: 0.89 PR AUC: 0.41

Epoch [18] out of 80

Training loss: 0.933.. Validation loss: 1.869..

AUC: 0.89 PR AUC: 0.42

Epoch [19] out of 80

Training loss: 0.929.. Validation loss: 1.965..

AUC: 0.88 PR AUC: 0.42

Epoch [20] out of 80

Training loss: 0.925.. Validation loss: 2.030..

AUC: 0.88 PR AUC: 0.43

Epoch [21] out of 80

Training loss: 0.923.. Validation loss: 2.084..

AUC: 0.87 PR AUC: 0.43

Epoch [22] out of 80

Training loss: 0.921.. Validation loss: 2.126..

AUC: 0.87 PR AUC: 0.44

Epoch [23] out of 80

Training loss: 0.919.. Validation loss: 2.177..

AUC: 0.86 PR AUC: 0.45

Epoch [24] out of 80

Training loss: 0.917.. Validation loss: 2.347..

AUC: 0.82 PR AUC: 0.44

Epoch [25] out of 80

Training loss: 0.916.. Validation loss: 2.543..

AUC: 0.77 PR AUC: 0.43

Epoch [26] out of 80

Training loss: 0.915.. Validation loss: 2.590..

AUC: 0.76 PR AUC: 0.43

Epoch [27] out of 80

Training loss: 0.913.. Validation loss: 2.623..

AUC: 0.75 PR AUC: 0.43

Epoch [28] out of 80

Training loss: 0.912.. Validation loss: 2.663..

AUC: 0.74 PR AUC: 0.43

Epoch [29] out of 80

Training loss: 0.911.. Validation loss: 2.701..

AUC: 0.73 PR AUC: 0.43

Epoch [30] out of 80

Training loss: 0.910.. Validation loss: 2.725..

AUC: 0.72 PR AUC: 0.43

Epoch [31] out of 80

Training loss: 0.909.. Validation loss: 2.754..

AUC: 0.71 PR AUC: 0.44

Epoch [32] out of 80

Training loss: 0.908.. Validation loss: 2.777..

AUC: 0.71 PR AUC: 0.44

Epoch [33] out of 80

Training loss: 0.907.. Validation loss: 2.796..

AUC: 0.70 PR AUC: 0.44

Epoch [34] out of 80

Training loss: 0.906.. Validation loss: 2.816..

AUC: 0.69 PR AUC: 0.44

Epoch [35] out of 80

Training loss: 0.905.. Validation loss: 2.835..

AUC: 0.68 PR AUC: 0.43

Epoch [36] out of 80

Training loss: 0.904.. Validation loss: 2.859..

AUC: 0.66 PR AUC: 0.43

Epoch [37] out of 80

Training loss: 0.903.. Validation loss: 2.876..

AUC: 0.65 PR AUC: 0.43

Epoch [38] out of 80

Training loss: 0.903.. Validation loss: 2.889..

AUC: 0.64 PR AUC: 0.42

Epoch [39] out of 80

Training loss: 0.902.. Validation loss: 2.903..

AUC: 0.63 PR AUC: 0.42

Epoch [40] out of 80

Training loss: 0.901.. Validation loss: 2.918..

AUC: 0.62 PR AUC: 0.42

Epoch [41] out of 80

Training loss: 0.901.. Validation loss: 2.930..

AUC: 0.61 PR AUC: 0.41

Epoch [42] out of 80

Training loss: 0.900.. Validation loss: 2.941..

AUC: 0.61 PR AUC: 0.41

Epoch [43] out of 80

Training loss: 0.900.. Validation loss: 2.948..

AUC: 0.60 PR AUC: 0.40

Epoch [44] out of 80

Training loss: 0.899.. Validation loss: 2.957..

AUC: 0.59 PR AUC: 0.40

Epoch [45] out of 80

Training loss: 0.899.. Validation loss: 2.965..

AUC: 0.58 PR AUC: 0.39

Epoch [46] out of 80

Training loss: 0.898.. Validation loss: 2.973..

AUC: 0.57 PR AUC: 0.38

Epoch [47] out of 80

Training loss: 0.898.. Validation loss: 2.978..

AUC: 0.56 PR AUC: 0.38

Epoch [48] out of 80

Training loss: 0.897.. Validation loss: 2.985..

AUC: 0.56 PR AUC: 0.37

Epoch [49] out of 80

Training loss: 0.897.. Validation loss: 2.990..

AUC: 0.55 PR AUC: 0.37

Epoch [50] out of 80

Training loss: 0.896.. Validation loss: 2.998..

AUC: 0.54 PR AUC: 0.36

Epoch [51] out of 80

Training loss: 0.896.. Validation loss: 3.002..

AUC: 0.54 PR AUC: 0.36

Epoch [52] out of 80

Training loss: 0.895.. Validation loss: 3.001..

AUC: 0.53 PR AUC: 0.35

Epoch [53] out of 80

Training loss: 0.895.. Validation loss: 3.003..

AUC: 0.53 PR AUC: 0.35

Epoch [54] out of 80

Training loss: 0.895.. Validation loss: 3.007..

AUC: 0.52 PR AUC: 0.34

Epoch [55] out of 80

Training loss: 0.894.. Validation loss: 3.010..

AUC: 0.51 PR AUC: 0.34

Epoch [56] out of 80

Training loss: 0.894.. Validation loss: 3.015..

AUC: 0.51 PR AUC: 0.33

Epoch [57] out of 80

Training loss: 0.893.. Validation loss: 3.021..

AUC: 0.50 PR AUC: 0.33

Epoch [58] out of 80

Training loss: 0.893.. Validation loss: 3.028..

AUC: 0.50 PR AUC: 0.32

Epoch [59] out of 80

Training loss: 0.893.. Validation loss: 3.031..

AUC: 0.49 PR AUC: 0.32

Epoch [60] out of 80

Training loss: 0.892.. Validation loss: 3.030..

AUC: 0.49 PR AUC: 0.31

Epoch [61] out of 80

Training loss: 0.892.. Validation loss: 3.030..

AUC: 0.49 PR AUC: 0.31

Epoch [62] out of 80

Training loss: 0.892.. Validation loss: 3.028..

AUC: 0.48 PR AUC: 0.31

Epoch [63] out of 80

Training loss: 0.891.. Validation loss: 3.028..

AUC: 0.48 PR AUC: 0.30

Epoch [64] out of 80

Training loss: 0.891.. Validation loss: 3.025..

AUC: 0.48 PR AUC: 0.30

Epoch [65] out of 80

Training loss: 0.891.. Validation loss: 3.018..

AUC: 0.47 PR AUC: 0.30

Epoch [66] out of 80

Training loss: 0.890.. Validation loss: 3.015..

AUC: 0.47 PR AUC: 0.29

Epoch [67] out of 80

Training loss: 0.890.. Validation loss: 3.007..

AUC: 0.47 PR AUC: 0.29

Epoch [68] out of 80

Training loss: 0.890.. Validation loss: 2.997..

AUC: 0.47 PR AUC: 0.29

Epoch [69] out of 80

Training loss: 0.890.. Validation loss: 2.993..

AUC: 0.46 PR AUC: 0.29

Epoch [70] out of 80

Training loss: 0.889.. Validation loss: 2.983..

AUC: 0.46 PR AUC: 0.29

Epoch [71] out of 80

Training loss: 0.889.. Validation loss: 2.974..

AUC: 0.46 PR AUC: 0.29

Epoch [72] out of 80

Training loss: 0.889.. Validation loss: 2.973..

AUC: 0.46 PR AUC: 0.28

Epoch [73] out of 80

Training loss: 0.889.. Validation loss: 2.970..

AUC: 0.46 PR AUC: 0.28

Epoch [74] out of 80

Training loss: 0.888.. Validation loss: 2.964..

AUC: 0.46 PR AUC: 0.28

Epoch [75] out of 80

Training loss: 0.888.. Validation loss: 2.959..

AUC: 0.46 PR AUC: 0.28

Epoch [76] out of 80

Training loss: 0.888.. Validation loss: 2.950..

AUC: 0.46 PR AUC: 0.28

Epoch [77] out of 80

Training loss: 0.888.. Validation loss: 2.952..

AUC: 0.46 PR AUC: 0.28

Epoch [78] out of 80

Training loss: 0.887.. Validation loss: 2.947..

AUC: 0.46 PR AUC: 0.28

Epoch [79] out of 80

Training loss: 0.887.. Validation loss: 2.939..

AUC: 0.46 PR AUC: 0.28

Epoch [80] out of 80

Training loss: 0.887.. Validation loss: 2.926..

AUC: 0.46 PR AUC: 0.28

Finished Training

starttime = 2021-01-11 05:16:19.577209

endtime = 2021-01-11 12:00:30.128363

Last model

Area Under ROC Curve: 0.33

Area Under PR Curve(AP): 0.57

Brier score : 0.424

Accuracy for Classifier : 0.48

Cut off: 0.9762

[[1995 4]

[2471 306]]

Best model

Area Under ROC Curve: 0.74

Area Under PR Curve(AP): 0.85

Brier score : 0.262

Accuracy for Classifier : 0.77

Cut off: 0.7624

[[1927 72]

[1028 1749]]

hypercount: 3

i-Bidir\_3\_lr\_0.001\_drop0.2

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, num\_layers=3, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0.2, inplace=False)

(relu): ReLU()

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Epoch [1] out of 80

Training loss: 1.069.. Validation loss: 0.772..

AUC: 0.85 PR AUC: 0.32

Epoch [2] out of 80

Training loss: 1.026.. Validation loss: 0.762..

AUC: 0.82 PR AUC: 0.31

Epoch [3] out of 80

Training loss: 1.003.. Validation loss: 0.875..

AUC: 0.82 PR AUC: 0.32

Epoch [4] out of 80

Training loss: 0.991.. Validation loss: 0.989..

AUC: 0.87 PR AUC: 0.33

Epoch [5] out of 80

Training loss: 0.978.. Validation loss: 1.042..

AUC: 0.91 PR AUC: 0.38

Epoch [6] out of 80

Training loss: 0.968.. Validation loss: 3.184..

AUC: 0.90 PR AUC: 0.49

Epoch [7] out of 80

Training loss: 0.962.. Validation loss: 3.468..

AUC: 0.88 PR AUC: 0.50

Epoch [8] out of 80

Training loss: 0.958.. Validation loss: 3.290..

AUC: 0.84 PR AUC: 0.50

Epoch [9] out of 80

Training loss: 0.953.. Validation loss: 3.378..

AUC: 0.86 PR AUC: 0.50

Epoch [10] out of 80

Training loss: 0.951.. Validation loss: 3.396..

AUC: 0.85 PR AUC: 0.47

Epoch [11] out of 80

Training loss: 0.951.. Validation loss: 3.021..

AUC: 0.84 PR AUC: 0.47

Epoch [12] out of 80

Training loss: 0.948.. Validation loss: 2.724..

AUC: 0.86 PR AUC: 0.50

Epoch [13] out of 80

Training loss: 0.947.. Validation loss: 2.730..

AUC: 0.84 PR AUC: 0.52

Epoch [14] out of 80

Training loss: 0.944.. Validation loss: 2.581..

AUC: 0.84 PR AUC: 0.49

Epoch [15] out of 80

Training loss: 0.943.. Validation loss: 2.400..

AUC: 0.84 PR AUC: 0.49

Epoch [16] out of 80

Training loss: 0.941.. Validation loss: 1.746..

AUC: 0.86 PR AUC: 0.49

Epoch [17] out of 80

Training loss: 0.940.. Validation loss: 2.233..

AUC: 0.81 PR AUC: 0.49

Epoch [18] out of 80

Training loss: 0.940.. Validation loss: 0.673..

AUC: 0.87 PR AUC: 0.45

Epoch [19] out of 80

Training loss: 0.938.. Validation loss: 2.080..

AUC: 0.82 PR AUC: 0.49

Epoch [20] out of 80

Training loss: 0.937.. Validation loss: 1.665..

AUC: 0.87 PR AUC: 0.51

Epoch [21] out of 80

Training loss: 0.938.. Validation loss: 1.180..

AUC: 0.89 PR AUC: 0.50

Epoch [22] out of 80

Training loss: 0.937.. Validation loss: 0.996..

AUC: 0.92 PR AUC: 0.49

Epoch [23] out of 80

Training loss: 0.936.. Validation loss: 1.028..

AUC: 0.92 PR AUC: 0.51

Epoch [24] out of 80

Training loss: 0.935.. Validation loss: 0.688..

AUC: 0.88 PR AUC: 0.46

Epoch [25] out of 80

Training loss: 0.933.. Validation loss: 0.682..

AUC: 0.88 PR AUC: 0.46

Epoch [26] out of 80

Training loss: 0.935.. Validation loss: 0.642..

AUC: 0.88 PR AUC: 0.48

Epoch [27] out of 80

Training loss: 0.933.. Validation loss: 0.696..

AUC: 0.88 PR AUC: 0.46

Epoch [28] out of 80

Training loss: 0.934.. Validation loss: 0.648..

AUC: 0.81 PR AUC: 0.46

Epoch [29] out of 80

Training loss: 0.932.. Validation loss: 0.635..

AUC: 0.87 PR AUC: 0.48

Epoch [30] out of 80

Training loss: 0.930.. Validation loss: 0.664..

AUC: 0.88 PR AUC: 0.47

Epoch [31] out of 80

Training loss: 0.932.. Validation loss: 0.676..

AUC: 0.87 PR AUC: 0.47

Epoch [32] out of 80

Training loss: 0.936.. Validation loss: 0.677..

AUC: 0.88 PR AUC: 0.47

Epoch [33] out of 80

Training loss: 0.930.. Validation loss: 1.477..

AUC: 0.86 PR AUC: 0.54

Epoch [34] out of 80

Training loss: 0.929.. Validation loss: 1.739..

AUC: 0.86 PR AUC: 0.52

Epoch [35] out of 80

Training loss: 0.929.. Validation loss: 1.383..

AUC: 0.87 PR AUC: 0.53

Epoch [36] out of 80

Training loss: 0.931.. Validation loss: 0.643..

AUC: 0.88 PR AUC: 0.49

Epoch [37] out of 80

Training loss: 0.931.. Validation loss: 0.629..

AUC: 0.89 PR AUC: 0.50

Epoch [38] out of 80

Training loss: 0.929.. Validation loss: 1.795..

AUC: 0.80 PR AUC: 0.49

Epoch [39] out of 80

Training loss: 0.931.. Validation loss: 0.791..

AUC: 0.92 PR AUC: 0.53

Epoch [40] out of 80

Training loss: 0.927.. Validation loss: 0.632..

AUC: 0.88 PR AUC: 0.50

Epoch [41] out of 80

Training loss: 0.928.. Validation loss: 1.497..

AUC: 0.83 PR AUC: 0.51

Epoch [42] out of 80

Training loss: 0.928.. Validation loss: 1.797..

AUC: 0.78 PR AUC: 0.50

Epoch [43] out of 80

Training loss: 0.928.. Validation loss: 1.412..

AUC: 0.78 PR AUC: 0.49

Epoch [44] out of 80

Training loss: 0.928.. Validation loss: 1.771..

AUC: 0.76 PR AUC: 0.51

Epoch [45] out of 80

Training loss: 0.927.. Validation loss: 1.682..

AUC: 0.74 PR AUC: 0.48

Epoch [46] out of 80

Training loss: 0.925.. Validation loss: 1.301..

AUC: 0.81 PR AUC: 0.51

Epoch [47] out of 80

Training loss: 0.925.. Validation loss: 1.018..

AUC: 0.86 PR AUC: 0.53

Epoch [48] out of 80

Training loss: 0.925.. Validation loss: 1.837..

AUC: 0.76 PR AUC: 0.50

Epoch [49] out of 80

Training loss: 0.924.. Validation loss: 0.812..

AUC: 0.89 PR AUC: 0.54

Epoch [50] out of 80

Training loss: 0.923.. Validation loss: 1.328..

AUC: 0.81 PR AUC: 0.49

Epoch [51] out of 80

Training loss: 0.922.. Validation loss: 0.925..

AUC: 0.87 PR AUC: 0.54

Epoch [52] out of 80

Training loss: 0.922.. Validation loss: 0.652..

AUC: 0.91 PR AUC: 0.56

Epoch [53] out of 80

Training loss: 0.924.. Validation loss: 0.611..

AUC: 0.90 PR AUC: 0.53

Epoch [54] out of 80

Training loss: 0.922.. Validation loss: 0.650..

AUC: 0.92 PR AUC: 0.56

Epoch [55] out of 80

Training loss: 0.921.. Validation loss: 0.576..

AUC: 0.88 PR AUC: 0.51

Epoch [56] out of 80

Training loss: 0.921.. Validation loss: 0.753..

AUC: 0.89 PR AUC: 0.55

Epoch [57] out of 80

Training loss: 0.919.. Validation loss: 0.908..

AUC: 0.87 PR AUC: 0.53

Epoch [58] out of 80

Training loss: 0.920.. Validation loss: 0.747..

AUC: 0.88 PR AUC: 0.55

Epoch [59] out of 80

Training loss: 0.919.. Validation loss: 0.742..

AUC: 0.90 PR AUC: 0.55

Epoch [60] out of 80

Training loss: 0.918.. Validation loss: 0.801..

AUC: 0.87 PR AUC: 0.57

Epoch [61] out of 80

Training loss: 0.919.. Validation loss: 1.054..

AUC: 0.85 PR AUC: 0.56

Epoch [62] out of 80

Training loss: 0.919.. Validation loss: 1.072..

AUC: 0.83 PR AUC: 0.54

Epoch [63] out of 80

Training loss: 0.917.. Validation loss: 1.043..

AUC: 0.87 PR AUC: 0.56

Epoch [64] out of 80

Training loss: 0.918.. Validation loss: 1.215..

AUC: 0.81 PR AUC: 0.53

Epoch [65] out of 80

Training loss: 0.918.. Validation loss: 1.005..

AUC: 0.85 PR AUC: 0.56

Epoch [66] out of 80

Training loss: 0.917.. Validation loss: 1.163..

AUC: 0.81 PR AUC: 0.54

Epoch [67] out of 80

Training loss: 0.917.. Validation loss: 1.133..

AUC: 0.84 PR AUC: 0.57

Epoch [68] out of 80

Training loss: 0.916.. Validation loss: 0.953..

AUC: 0.82 PR AUC: 0.57

Epoch [69] out of 80

Training loss: 0.916.. Validation loss: 1.068..

AUC: 0.83 PR AUC: 0.56

Epoch [70] out of 80

Training loss: 0.916.. Validation loss: 1.110..

AUC: 0.79 PR AUC: 0.55

Epoch [71] out of 80

Training loss: 0.915.. Validation loss: 0.985..

AUC: 0.84 PR AUC: 0.57

Epoch [72] out of 80

Training loss: 0.916.. Validation loss: 1.033..

AUC: 0.84 PR AUC: 0.57

Epoch [73] out of 80

Training loss: 0.913.. Validation loss: 0.881..

AUC: 0.86 PR AUC: 0.59

Epoch [74] out of 80

Training loss: 0.912.. Validation loss: 0.931..

AUC: 0.85 PR AUC: 0.57

Epoch [75] out of 80

Training loss: 0.912.. Validation loss: 0.902..

AUC: 0.84 PR AUC: 0.57

Epoch [76] out of 80

Training loss: 0.912.. Validation loss: 0.933..

AUC: 0.85 PR AUC: 0.58

Epoch [77] out of 80

Training loss: 0.913.. Validation loss: 1.136..

AUC: 0.81 PR AUC: 0.55

Epoch [78] out of 80

Training loss: 0.912.. Validation loss: 0.853..

AUC: 0.87 PR AUC: 0.58

Epoch [79] out of 80

Training loss: 0.912.. Validation loss: 0.921..

AUC: 0.84 PR AUC: 0.57

Epoch [80] out of 80

Training loss: 0.910.. Validation loss: 1.063..

AUC: 0.81 PR AUC: 0.56

Finished Training

starttime = 2021-01-11 12:00:31.797554

endtime = 2021-01-11 18:52:25.113871

Last model

Area Under ROC Curve: 0.55

Area Under PR Curve(AP): 0.72

Brier score : 0.278

Accuracy for Classifier : 0.59

Cut off: 0.797

[[1916 83]

[1852 925]]

Best model

Area Under ROC Curve: 0.70

Area Under PR Curve(AP): 0.81

Brier score : 0.219

Accuracy for Classifier : 0.66

Cut off: 0.7715

[[1774 225]

[1388 1389]]

hypercount: 4

i-Bidir\_3\_lr\_0.0001\_drop0.2

Net(

(fc1): Linear(in\_features=35, out\_features=35, bias=True)

(fc2): LSTM(35, 1, num\_layers=3, batch\_first=True, bidirectional=True)

(combination\_layer): Linear(in\_features=2, out\_features=2, bias=True)

(projection): Linear(in\_features=2, out\_features=1, bias=True)

(dropout\_layer): Dropout(p=0.2, inplace=False)

(relu): ReLU()

)

Epoch [1] out of 80

Training loss: 1.228.. Validation loss: 0.950..

AUC: 0.60 PR AUC: 0.26

Epoch [2] out of 80

Training loss: 1.179.. Validation loss: 0.862..

AUC: 0.66 PR AUC: 0.30

Epoch [3] out of 80

Training loss: 1.139.. Validation loss: 0.794..

AUC: 0.71 PR AUC: 0.32

Epoch [4] out of 80

Training loss: 1.098.. Validation loss: 0.732..

AUC: 0.70 PR AUC: 0.36

Epoch [5] out of 80

Training loss: 1.067.. Validation loss: 0.689..

AUC: 0.71 PR AUC: 0.36

Epoch [6] out of 80

Training loss: 1.049.. Validation loss: 0.654..

AUC: 0.75 PR AUC: 0.37

Epoch [7] out of 80

Training loss: 1.037.. Validation loss: 0.631..

AUC: 0.78 PR AUC: 0.38

Epoch [8] out of 80

Training loss: 1.030.. Validation loss: 0.617..

AUC: 0.80 PR AUC: 0.39

Epoch [9] out of 80

Training loss: 1.024.. Validation loss: 0.606..

AUC: 0.83 PR AUC: 0.39

Epoch [10] out of 80

Training loss: 1.019.. Validation loss: 0.598..

AUC: 0.83 PR AUC: 0.40

Epoch [11] out of 80

Training loss: 1.013.. Validation loss: 0.593..

AUC: 0.85 PR AUC: 0.41

Epoch [12] out of 80

Training loss: 1.007.. Validation loss: 0.586..

AUC: 0.85 PR AUC: 0.42

Epoch [13] out of 80

Training loss: 0.999.. Validation loss: 0.587..

AUC: 0.86 PR AUC: 0.42

Epoch [14] out of 80

Training loss: 0.994.. Validation loss: 0.585..

AUC: 0.86 PR AUC: 0.43

Epoch [15] out of 80

Training loss: 0.988.. Validation loss: 0.583..

AUC: 0.86 PR AUC: 0.43

Epoch [16] out of 80

Training loss: 0.983.. Validation loss: 0.585..

AUC: 0.86 PR AUC: 0.44

Epoch [17] out of 80

Training loss: 0.980.. Validation loss: 0.585..

AUC: 0.86 PR AUC: 0.44

Epoch [18] out of 80

Training loss: 0.977.. Validation loss: 0.574..

AUC: 0.85 PR AUC: 0.45

Epoch [19] out of 80

Training loss: 0.975.. Validation loss: 0.581..

AUC: 0.86 PR AUC: 0.45

Epoch [20] out of 80

Training loss: 0.973.. Validation loss: 0.580..

AUC: 0.86 PR AUC: 0.46

Epoch [21] out of 80

Training loss: 0.971.. Validation loss: 0.584..

AUC: 0.87 PR AUC: 0.46

Epoch [22] out of 80

Training loss: 0.970.. Validation loss: 0.588..

AUC: 0.87 PR AUC: 0.46

Epoch [23] out of 80

Training loss: 0.969.. Validation loss: 0.599..

AUC: 0.87 PR AUC: 0.46

Epoch [24] out of 80

Training loss: 0.968.. Validation loss: 0.587..

AUC: 0.87 PR AUC: 0.47

Epoch [25] out of 80

Training loss: 0.966.. Validation loss: 0.579..

AUC: 0.87 PR AUC: 0.47

Epoch [26] out of 80

Training loss: 0.966.. Validation loss: 0.581..

AUC: 0.87 PR AUC: 0.47

Epoch [27] out of 80

Training loss: 0.964.. Validation loss: 0.595..

AUC: 0.88 PR AUC: 0.47

Epoch [28] out of 80

Training loss: 0.963.. Validation loss: 0.603..

AUC: 0.88 PR AUC: 0.47

Epoch [29] out of 80

Training loss: 0.964.. Validation loss: 0.599..

AUC: 0.88 PR AUC: 0.47

Epoch [30] out of 80

Training loss: 0.962.. Validation loss: 0.590..

AUC: 0.88 PR AUC: 0.47

Epoch [31] out of 80

Training loss: 0.962.. Validation loss: 0.600..

AUC: 0.88 PR AUC: 0.47

Epoch [32] out of 80

Training loss: 0.962.. Validation loss: 0.590..

AUC: 0.88 PR AUC: 0.47

Epoch [33] out of 80

Training loss: 0.960.. Validation loss: 0.595..

AUC: 0.88 PR AUC: 0.47

Epoch [34] out of 80

Training loss: 0.961.. Validation loss: 0.614..

AUC: 0.89 PR AUC: 0.47

Epoch [35] out of 80

Training loss: 0.960.. Validation loss: 0.611..

AUC: 0.89 PR AUC: 0.47

Epoch [36] out of 80

Training loss: 0.959.. Validation loss: 0.606..

AUC: 0.89 PR AUC: 0.46

Epoch [37] out of 80

Training loss: 0.959.. Validation loss: 0.611..

AUC: 0.89 PR AUC: 0.47

Epoch [38] out of 80

Training loss: 0.959.. Validation loss: 0.616..

AUC: 0.89 PR AUC: 0.47

Epoch [39] out of 80

Training loss: 0.957.. Validation loss: 0.618..

AUC: 0.89 PR AUC: 0.47

Epoch [40] out of 80

Training loss: 0.959.. Validation loss: 0.611..

AUC: 0.89 PR AUC: 0.47

Epoch [41] out of 80

Training loss: 0.958.. Validation loss: 0.626..

AUC: 0.89 PR AUC: 0.47

Epoch [42] out of 80

Training loss: 0.958.. Validation loss: 0.619..

AUC: 0.89 PR AUC: 0.46

Epoch [43] out of 80

Training loss: 0.956.. Validation loss: 0.637..

AUC: 0.90 PR AUC: 0.46

Epoch [44] out of 80

Training loss: 0.956.. Validation loss: 0.632..

AUC: 0.90 PR AUC: 0.47

Epoch [45] out of 80

Training loss: 0.955.. Validation loss: 0.660..

AUC: 0.90 PR AUC: 0.45

Epoch [46] out of 80

Training loss: 0.956.. Validation loss: 0.626..

AUC: 0.90 PR AUC: 0.46

Epoch [47] out of 80

Training loss: 0.955.. Validation loss: 0.645..

AUC: 0.90 PR AUC: 0.46

Epoch [48] out of 80

Training loss: 0.954.. Validation loss: 0.647..

AUC: 0.90 PR AUC: 0.46

Epoch [49] out of 80

Training loss: 0.953.. Validation loss: 0.640..

AUC: 0.90 PR AUC: 0.46

Epoch [50] out of 80

Training loss: 0.954.. Validation loss: 0.641..

AUC: 0.90 PR AUC: 0.46

Epoch [51] out of 80

Training loss: 0.954.. Validation loss: 0.636..

AUC: 0.90 PR AUC: 0.46

Epoch [52] out of 80

Training loss: 0.953.. Validation loss: 0.648..

AUC: 0.90 PR AUC: 0.46

Epoch [53] out of 80

Training loss: 0.953.. Validation loss: 0.650..

AUC: 0.90 PR AUC: 0.46

Epoch [54] out of 80

Training loss: 0.952.. Validation loss: 0.661..

AUC: 0.90 PR AUC: 0.45

Epoch [55] out of 80

Training loss: 0.952.. Validation loss: 0.656..

AUC: 0.90 PR AUC: 0.46

Epoch [56] out of 80

Training loss: 0.952.. Validation loss: 0.654..

AUC: 0.90 PR AUC: 0.46

Epoch [57] out of 80

Training loss: 0.952.. Validation loss: 0.652..

AUC: 0.90 PR AUC: 0.46

Epoch [58] out of 80

Training loss: 0.952.. Validation loss: 0.652..

AUC: 0.90 PR AUC: 0.45

Epoch [59] out of 80

Training loss: 0.951.. Validation loss: 0.669..

AUC: 0.91 PR AUC: 0.45

Epoch [60] out of 80

Training loss: 0.950.. Validation loss: 0.658..

AUC: 0.91 PR AUC: 0.46

Epoch [61] out of 80

Training loss: 0.951.. Validation loss: 0.655..

AUC: 0.90 PR AUC: 0.46

Epoch [62] out of 80

Training loss: 0.951.. Validation loss: 0.653..

AUC: 0.90 PR AUC: 0.45

Epoch [63] out of 80

Training loss: 0.951.. Validation loss: 0.670..

AUC: 0.91 PR AUC: 0.44

Epoch [64] out of 80

Training loss: 0.951.. Validation loss: 0.661..

AUC: 0.91 PR AUC: 0.45

Epoch [65] out of 80

Training loss: 0.950.. Validation loss: 0.657..

AUC: 0.90 PR AUC: 0.45

Epoch [66] out of 80

Training loss: 0.951.. Validation loss: 0.663..

AUC: 0.91 PR AUC: 0.45

Epoch [67] out of 80

Training loss: 0.950.. Validation loss: 0.675..

AUC: 0.91 PR AUC: 0.45

Epoch [68] out of 80

Training loss: 0.950.. Validation loss: 0.666..

AUC: 0.91 PR AUC: 0.45

Epoch [69] out of 80

Training loss: 0.948.. Validation loss: 0.680..

AUC: 0.91 PR AUC: 0.45

Epoch [70] out of 80

Training loss: 0.949.. Validation loss: 0.671..

AUC: 0.91 PR AUC: 0.45

Epoch [71] out of 80

Training loss: 0.948.. Validation loss: 0.677..

AUC: 0.91 PR AUC: 0.45

Epoch [72] out of 80

Training loss: 0.949.. Validation loss: 0.669..

AUC: 0.91 PR AUC: 0.45

Epoch [73] out of 80

Training loss: 0.948.. Validation loss: 0.681..

AUC: 0.91 PR AUC: 0.45

Epoch [74] out of 80

Training loss: 0.949.. Validation loss: 0.681..

AUC: 0.91 PR AUC: 0.45

Epoch [75] out of 80

Training loss: 0.949.. Validation loss: 0.690..

AUC: 0.91 PR AUC: 0.45

Epoch [76] out of 80

Training loss: 0.948.. Validation loss: 0.680..

AUC: 0.91 PR AUC: 0.45

Epoch [77] out of 80

Training loss: 0.947.. Validation loss: 0.673..

AUC: 0.91 PR AUC: 0.45

Epoch [78] out of 80

Training loss: 0.948.. Validation loss: 0.677..

AUC: 0.91 PR AUC: 0.45

Epoch [79] out of 80

Training loss: 0.947.. Validation loss: 0.686..

AUC: 0.91 PR AUC: 0.44

Epoch [80] out of 80

Training loss: 0.948.. Validation loss: 0.668..

AUC: 0.91 PR AUC: 0.44

Finished Training

starttime = 2021-01-11 18:52:26.611350

endtime = 2021-01-12 11:32:25.699931

Last model

Area Under ROC Curve: 0.78

Area Under PR Curve(AP): 0.89

Brier score : 0.185

Accuracy for Classifier : 0.75

Cut off: 0.292

[[1917 82]

[1119 1658]]

Best model

Area Under ROC Curve: 0.79

Area Under PR Curve(AP): 0.89

Brier score : 0.180

Accuracy for Classifier : 0.76

Cut off: 0.292

[[1912 87]

[1078 1699]]