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

Epoch [10] out of 80

Training loss: 0.982.. Validation loss: 0.588..

AUC: 0.90 PR AUC: 0.38

Epoch [11] out of 80

Training loss: 0.977.. Validation loss: 0.575..

AUC: 0.90 PR AUC: 0.39

Epoch [12] out of 80

Training loss: 0.974.. Validation loss: 0.554..

AUC: 0.90 PR AUC: 0.38

Epoch [13] out of 80

Training loss: 0.971.. Validation loss: 0.556..

AUC: 0.91 PR AUC: 0.38

Epoch [14] out of 80

Training loss: 0.970.. Validation loss: 0.553..

AUC: 0.91 PR AUC: 0.38

Epoch [15] out of 80

Training loss: 0.968.. Validation loss: 0.552..

AUC: 0.91 PR AUC: 0.37

Epoch [16] out of 80

Training loss: 0.967.. Validation loss: 0.561..

AUC: 0.91 PR AUC: 0.38

Epoch [17] out of 80

Training loss: 0.966.. Validation loss: 0.568..

AUC: 0.91 PR AUC: 0.38

Epoch [18] out of 80

Training loss: 0.965.. Validation loss: 0.568..

AUC: 0.92 PR AUC: 0.38

Epoch [19] out of 80

Training loss: 0.964.. Validation loss: 0.534..

AUC: 0.91 PR AUC: 0.37

Epoch [20] out of 80

Training loss: 0.963.. Validation loss: 0.532..

AUC: 0.91 PR AUC: 0.37

Epoch [21] out of 80

Training loss: 0.962.. Validation loss: 0.529..

AUC: 0.90 PR AUC: 0.37

Epoch [22] out of 80

Training loss: 0.962.. Validation loss: 0.527..

AUC: 0.89 PR AUC: 0.36

Epoch [23] out of 80

Training loss: 0.961.. Validation loss: 0.507..

AUC: 0.90 PR AUC: 0.37

Epoch [24] out of 80

Training loss: 0.960.. Validation loss: 0.510..

AUC: 0.89 PR AUC: 0.36

Epoch [25] out of 80

Training loss: 0.959.. Validation loss: 0.511..

AUC: 0.89 PR AUC: 0.37

Epoch [26] out of 80

Training loss: 0.959.. Validation loss: 0.508..

AUC: 0.90 PR AUC: 0.37

Epoch [27] out of 80

Training loss: 0.958.. Validation loss: 0.513..

AUC: 0.90 PR AUC: 0.37

Epoch [28] out of 80

Training loss: 0.958.. Validation loss: 0.507..

AUC: 0.91 PR AUC: 0.38

Epoch [29] out of 80

Training loss: 0.957.. Validation loss: 0.508..

AUC: 0.91 PR AUC: 0.37

Epoch [30] out of 80

Training loss: 0.957.. Validation loss: 0.507..

AUC: 0.91 PR AUC: 0.37

Epoch [31] out of 80

Training loss: 0.958.. Validation loss: 0.507..

AUC: 0.91 PR AUC: 0.37

Epoch [32] out of 80

Training loss: 0.956.. Validation loss: 0.508..

AUC: 0.91 PR AUC: 0.37

Epoch [33] out of 80

Training loss: 0.956.. Validation loss: 0.512..

AUC: 0.91 PR AUC: 0.37

Epoch [34] out of 80

Training loss: 0.955.. Validation loss: 0.508..

AUC: 0.91 PR AUC: 0.37

Epoch [35] out of 80

Training loss: 0.955.. Validation loss: 0.507..

AUC: 0.91 PR AUC: 0.37

Epoch [36] out of 80

Training loss: 0.955.. Validation loss: 0.507..

AUC: 0.91 PR AUC: 0.36

Epoch [37] out of 80

Training loss: 0.954.. Validation loss: 0.514..

AUC: 0.91 PR AUC: 0.37

Epoch [38] out of 80

Training loss: 0.953.. Validation loss: 0.514..

AUC: 0.91 PR AUC: 0.37

Epoch [39] out of 80

Training loss: 0.954.. Validation loss: 0.514..

AUC: 0.91 PR AUC: 0.37

Epoch [40] out of 80

Training loss: 0.953.. Validation loss: 0.514..

AUC: 0.91 PR AUC: 0.37

Epoch [41] out of 80

Training loss: 0.955.. Validation loss: 0.520..

AUC: 0.92 PR AUC: 0.37

Epoch [42] out of 80

Training loss: 0.952.. Validation loss: 0.510..

AUC: 0.91 PR AUC: 0.37

Epoch [43] out of 80

Training loss: 0.952.. Validation loss: 0.508..

AUC: 0.91 PR AUC: 0.37

Epoch [44] out of 80

Training loss: 0.951.. Validation loss: 0.505..

AUC: 0.91 PR AUC: 0.38

Epoch [45] out of 80

Training loss: 0.952.. Validation loss: 0.509..

AUC: 0.92 PR AUC: 0.37

Epoch [46] out of 80

Training loss: 0.951.. Validation loss: 0.518..

AUC: 0.91 PR AUC: 0.37

Epoch [47] out of 80

Training loss: 0.951.. Validation loss: 0.522..

AUC: 0.91 PR AUC: 0.38

Epoch [48] out of 80

Training loss: 0.950.. Validation loss: 0.528..

AUC: 0.91 PR AUC: 0.37

Epoch [49] out of 80

Training loss: 0.950.. Validation loss: 0.533..

AUC: 0.90 PR AUC: 0.38

Epoch [50] out of 80

Training loss: 0.950.. Validation loss: 0.536..

AUC: 0.90 PR AUC: 0.38

Epoch [51] out of 80

Training loss: 0.953.. Validation loss: 0.535..

AUC: 0.91 PR AUC: 0.38

Epoch [52] out of 80

Training loss: 0.950.. Validation loss: 0.550..

AUC: 0.90 PR AUC: 0.38

Epoch [53] out of 80

Training loss: 0.950.. Validation loss: 0.534..

AUC: 0.91 PR AUC: 0.39

Epoch [54] out of 80

Training loss: 0.950.. Validation loss: 0.520..

AUC: 0.91 PR AUC: 0.39

Epoch [55] out of 80

Training loss: 0.949.. Validation loss: 0.548..

AUC: 0.91 PR AUC: 0.38

Epoch [56] out of 80

Training loss: 0.948.. Validation loss: 0.545..

AUC: 0.90 PR AUC: 0.38

Epoch [57] out of 80

Training loss: 0.949.. Validation loss: 0.558..

AUC: 0.90 PR AUC: 0.39

Epoch [58] out of 80

Training loss: 0.948.. Validation loss: 0.552..

AUC: 0.90 PR AUC: 0.39

Epoch [59] out of 80

Training loss: 0.948.. Validation loss: 0.538..

AUC: 0.91 PR AUC: 0.39

Epoch [60] out of 80

Training loss: 0.947.. Validation loss: 0.550..

AUC: 0.90 PR AUC: 0.39

Epoch [61] out of 80

Training loss: 0.948.. Validation loss: 0.549..

AUC: 0.91 PR AUC: 0.39

Epoch [62] out of 80

Training loss: 0.948.. Validation loss: 0.527..

AUC: 0.91 PR AUC: 0.40

Epoch [63] out of 80

Training loss: 0.948.. Validation loss: 0.536..

AUC: 0.91 PR AUC: 0.40

Epoch [64] out of 80

Training loss: 0.957.. Validation loss: 0.550..

AUC: 0.92 PR AUC: 0.40

Epoch [65] out of 80

Training loss: 0.952.. Validation loss: 0.548..

AUC: 0.91 PR AUC: 0.39

Epoch [66] out of 80

Training loss: 0.949.. Validation loss: 0.546..

AUC: 0.91 PR AUC: 0.40

Epoch [67] out of 80

Training loss: 0.948.. Validation loss: 0.559..

AUC: 0.91 PR AUC: 0.39

Epoch [68] out of 80

Training loss: 0.949.. Validation loss: 0.538..

AUC: 0.90 PR AUC: 0.39

Epoch [69] out of 80

Training loss: 0.948.. Validation loss: 0.553..

AUC: 0.91 PR AUC: 0.39

Epoch [70] out of 80

Training loss: 0.948.. Validation loss: 0.547..

AUC: 0.90 PR AUC: 0.41

Epoch [71] out of 80

Training loss: 0.949.. Validation loss: 0.556..

AUC: 0.91 PR AUC: 0.39

Epoch [72] out of 80

Training loss: 0.948.. Validation loss: 0.558..

AUC: 0.92 PR AUC: 0.40

Epoch [73] out of 80

Training loss: 0.947.. Validation loss: 0.567..

AUC: 0.91 PR AUC: 0.40

Epoch [74] out of 80

Training loss: 0.950.. Validation loss: 0.531..

AUC: 0.91 PR AUC: 0.41

Epoch [75] out of 80

Training loss: 0.947.. Validation loss: 0.544..

AUC: 0.91 PR AUC: 0.40

Epoch [76] out of 80

Training loss: 0.948.. Validation loss: 0.568..

AUC: 0.90 PR AUC: 0.39

Epoch [77] out of 80

Training loss: 0.949.. Validation loss: 0.543..

AUC: 0.91 PR AUC: 0.40

Epoch [78] out of 80

Training loss: 0.951.. Validation loss: 0.533..

AUC: 0.92 PR AUC: 0.39

Epoch [79] out of 80

Training loss: 0.948.. Validation loss: 0.528..

AUC: 0.92 PR AUC: 0.40

Epoch [80] out of 80

Training loss: 0.947.. Validation loss: 0.551..

AUC: 0.90 PR AUC: 0.40

Finished Training

starttime = 2021-01-06 19:25:27.071947

endtime = 2021-01-06 21:41:56.677643

Last model

Area Under ROC Curve: 0.75

Area Under PR Curve(AP): 0.84

Brier score : 0.206

Accuracy for Classifier : 0.69

Cut off: 0.523

[[1830 169]

[1300 1477]]

Best model

Area Under ROC Curve: 0.80

Area Under PR Curve(AP): 0.87

Brier score : 0.192

Accuracy for Classifier : 0.78

Cut off: 0.2657

[[1790 209]

[ 850 1927]]

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()

)

Epoch [1] out of 80

Training loss: 1.146.. Validation loss: 0.926..

AUC: 0.82 PR AUC: 0.32

Epoch [2] out of 80

Training loss: 1.097.. Validation loss: 1.024..

AUC: 0.79 PR AUC: 0.33

Epoch [3] out of 80

Training loss: 1.081.. Validation loss: 1.075..

AUC: 0.77 PR AUC: 0.33

Epoch [4] out of 80

Training loss: 1.076.. Validation loss: 1.072..

AUC: 0.78 PR AUC: 0.34

Epoch [5] out of 80

Training loss: 1.073.. Validation loss: 1.103..

AUC: 0.77 PR AUC: 0.33

Epoch [6] out of 80

Training loss: 1.067.. Validation loss: 1.105..

AUC: 0.79 PR AUC: 0.34

Epoch [7] out of 80

Training loss: 1.062.. Validation loss: 1.111..

AUC: 0.81 PR AUC: 0.34

Epoch [8] out of 80

Training loss: 1.058.. Validation loss: 1.132..

AUC: 0.81 PR AUC: 0.34

Epoch [9] out of 80

Training loss: 1.061.. Validation loss: 1.157..

AUC: 0.78 PR AUC: 0.34

Epoch [10] out of 80

Training loss: 1.052.. Validation loss: 1.169..

AUC: 0.79 PR AUC: 0.34

Epoch [11] out of 80

Training loss: 1.047.. Validation loss: 1.187..

AUC: 0.79 PR AUC: 0.35

Epoch [12] out of 80

Training loss: 1.043.. Validation loss: 1.203..

AUC: 0.78 PR AUC: 0.34

Epoch [13] out of 80

Training loss: 1.041.. Validation loss: 1.220..

AUC: 0.77 PR AUC: 0.34

Epoch [14] out of 80

Training loss: 1.039.. Validation loss: 1.227..

AUC: 0.78 PR AUC: 0.34

Epoch [15] out of 80

Training loss: 1.038.. Validation loss: 1.232..

AUC: 0.78 PR AUC: 0.34

Epoch [16] out of 80

Training loss: 1.037.. Validation loss: 1.240..

AUC: 0.77 PR AUC: 0.34

Epoch [17] out of 80

Training loss: 1.038.. Validation loss: 1.229..

AUC: 0.78 PR AUC: 0.34

Epoch [18] out of 80

Training loss: 1.035.. Validation loss: 1.227..

AUC: 0.79 PR AUC: 0.35

Epoch [19] out of 80

Training loss: 1.033.. Validation loss: 1.240..

AUC: 0.79 PR AUC: 0.35

Epoch [20] out of 80

Training loss: 1.033.. Validation loss: 1.245..

AUC: 0.80 PR AUC: 0.35

Epoch [21] out of 80

Training loss: 1.032.. Validation loss: 1.228..

AUC: 0.80 PR AUC: 0.35

Epoch [22] out of 80

Training loss: 1.029.. Validation loss: 1.234..

AUC: 0.80 PR AUC: 0.35

Epoch [23] out of 80

Training loss: 1.029.. Validation loss: 1.232..

AUC: 0.81 PR AUC: 0.35

Epoch [24] out of 80

Training loss: 1.030.. Validation loss: 1.217..

AUC: 0.81 PR AUC: 0.35

Epoch [25] out of 80

Training loss: 1.030.. Validation loss: 1.217..

AUC: 0.80 PR AUC: 0.35

Epoch [26] out of 80

Training loss: 1.027.. Validation loss: 1.215..

AUC: 0.82 PR AUC: 0.36

Epoch [27] out of 80

Training loss: 1.026.. Validation loss: 1.198..

AUC: 0.83 PR AUC: 0.36

Epoch [28] out of 80

Training loss: 1.027.. Validation loss: 1.170..

AUC: 0.84 PR AUC: 0.36

Epoch [29] out of 80

Training loss: 1.025.. Validation loss: 1.155..

AUC: 0.85 PR AUC: 0.37

Epoch [30] out of 80

Training loss: 1.024.. Validation loss: 1.146..

AUC: 0.86 PR AUC: 0.37

Epoch [31] out of 80

Training loss: 1.023.. Validation loss: 1.154..

AUC: 0.86 PR AUC: 0.37

Epoch [32] out of 80

Training loss: 1.023.. Validation loss: 1.144..

AUC: 0.87 PR AUC: 0.38

Epoch [33] out of 80

Training loss: 1.021.. Validation loss: 1.134..

AUC: 0.88 PR AUC: 0.38

Epoch [34] out of 80

Training loss: 1.022.. Validation loss: 1.149..

AUC: 0.88 PR AUC: 0.38

Epoch [35] out of 80

Training loss: 1.020.. Validation loss: 1.145..

AUC: 0.88 PR AUC: 0.38

Epoch [36] out of 80

Training loss: 1.020.. Validation loss: 1.136..

AUC: 0.88 PR AUC: 0.38

Epoch [37] out of 80

Training loss: 1.019.. Validation loss: 1.134..

AUC: 0.88 PR AUC: 0.38

Epoch [38] out of 80

Training loss: 1.017.. Validation loss: 1.133..

AUC: 0.89 PR AUC: 0.38

Epoch [39] out of 80

Training loss: 1.017.. Validation loss: 1.130..

AUC: 0.88 PR AUC: 0.38

Epoch [40] out of 80

Training loss: 1.016.. Validation loss: 1.128..

AUC: 0.89 PR AUC: 0.39

Epoch [41] out of 80

Training loss: 1.016.. Validation loss: 1.125..

AUC: 0.88 PR AUC: 0.39

Epoch [42] out of 80

Training loss: 1.015.. Validation loss: 1.120..

AUC: 0.88 PR AUC: 0.39

Epoch [43] out of 80

Training loss: 1.016.. Validation loss: 1.110..

AUC: 0.88 PR AUC: 0.39

Epoch [44] out of 80

Training loss: 1.014.. Validation loss: 1.104..

AUC: 0.88 PR AUC: 0.39

Epoch [45] out of 80

Training loss: 1.013.. Validation loss: 1.097..

AUC: 0.88 PR AUC: 0.39

Epoch [46] out of 80

Training loss: 1.012.. Validation loss: 1.096..

AUC: 0.88 PR AUC: 0.39

Epoch [47] out of 80

Training loss: 1.011.. Validation loss: 1.095..

AUC: 0.88 PR AUC: 0.39

Epoch [48] out of 80

Training loss: 1.011.. Validation loss: 1.094..

AUC: 0.88 PR AUC: 0.39

Epoch [49] out of 80

Training loss: 1.010.. Validation loss: 1.100..

AUC: 0.88 PR AUC: 0.39

Epoch [50] out of 80

Training loss: 1.010.. Validation loss: 1.109..

AUC: 0.87 PR AUC: 0.39

Epoch [51] out of 80

Training loss: 1.009.. Validation loss: 1.107..

AUC: 0.88 PR AUC: 0.39

Epoch [52] out of 80

Training loss: 1.008.. Validation loss: 1.113..

AUC: 0.88 PR AUC: 0.39

Epoch [53] out of 80

Training loss: 1.008.. Validation loss: 1.111..

AUC: 0.88 PR AUC: 0.39

Epoch [54] out of 80

Training loss: 1.007.. Validation loss: 1.115..

AUC: 0.88 PR AUC: 0.39

Epoch [55] out of 80

Training loss: 1.006.. Validation loss: 1.117..

AUC: 0.88 PR AUC: 0.39

Epoch [56] out of 80

Training loss: 1.006.. Validation loss: 1.118..

AUC: 0.88 PR AUC: 0.39

Epoch [57] out of 80

Training loss: 1.006.. Validation loss: 1.123..

AUC: 0.89 PR AUC: 0.39

Epoch [58] out of 80

Training loss: 1.005.. Validation loss: 1.120..

AUC: 0.89 PR AUC: 0.39

Epoch [59] out of 80

Training loss: 1.004.. Validation loss: 1.121..

AUC: 0.89 PR AUC: 0.39

Epoch [60] out of 80

Training loss: 1.004.. Validation loss: 1.118..

AUC: 0.89 PR AUC: 0.39

Epoch [61] out of 80

Training loss: 1.003.. Validation loss: 1.122..

AUC: 0.89 PR AUC: 0.39

Epoch [62] out of 80

Training loss: 1.003.. Validation loss: 1.125..

AUC: 0.89 PR AUC: 0.39

Epoch [63] out of 80

Training loss: 1.002.. Validation loss: 1.129..

AUC: 0.89 PR AUC: 0.39

Epoch [64] out of 80

Training loss: 1.002.. Validation loss: 1.112..

AUC: 0.89 PR AUC: 0.40

Epoch [65] out of 80

Training loss: 1.001.. Validation loss: 1.100..

AUC: 0.89 PR AUC: 0.40

Epoch [66] out of 80

Training loss: 1.000.. Validation loss: 1.113..

AUC: 0.89 PR AUC: 0.40

Epoch [67] out of 80

Training loss: 1.000.. Validation loss: 1.126..

AUC: 0.89 PR AUC: 0.40

Epoch [68] out of 80

Training loss: 0.999.. Validation loss: 1.135..

AUC: 0.89 PR AUC: 0.40

Epoch [69] out of 80

Training loss: 1.000.. Validation loss: 1.107..

AUC: 0.89 PR AUC: 0.40

Epoch [70] out of 80

Training loss: 1.000.. Validation loss: 1.117..

AUC: 0.89 PR AUC: 0.40

Epoch [71] out of 80

Training loss: 0.998.. Validation loss: 1.126..

AUC: 0.89 PR AUC: 0.40

Epoch [72] out of 80

Training loss: 0.997.. Validation loss: 1.136..

AUC: 0.89 PR AUC: 0.40

Epoch [73] out of 80

Training loss: 0.996.. Validation loss: 1.143..

AUC: 0.89 PR AUC: 0.40

Epoch [74] out of 80

Training loss: 0.996.. Validation loss: 1.149..

AUC: 0.89 PR AUC: 0.40

Epoch [75] out of 80

Training loss: 0.995.. Validation loss: 1.155..

AUC: 0.89 PR AUC: 0.40

Epoch [76] out of 80

Training loss: 0.995.. Validation loss: 1.162..

AUC: 0.89 PR AUC: 0.40

Epoch [77] out of 80

Training loss: 0.994.. Validation loss: 1.165..

AUC: 0.89 PR AUC: 0.40

Epoch [78] out of 80

Training loss: 0.993.. Validation loss: 1.170..

AUC: 0.90 PR AUC: 0.40

Epoch [79] out of 80

Training loss: 0.993.. Validation loss: 1.175..

AUC: 0.90 PR AUC: 0.40

Epoch [80] out of 80

Training loss: 0.992.. Validation loss: 1.181..

AUC: 0.90 PR AUC: 0.40

Finished Training

starttime = 2021-01-06 21:41:57.819820

endtime = 2021-01-06 23:54:17.003310

Last model

Area Under ROC Curve: 0.78

Area Under PR Curve(AP): 0.87

Brier score : 0.233

Accuracy for Classifier : 0.78

Cut off: 0.7074

[[1893 106]

[ 967 1810]]

Best model

Area Under ROC Curve: 0.78

Area Under PR Curve(AP): 0.87

Brier score : 0.233

Accuracy for Classifier : 0.78

Cut off: 0.7074

[[1893 106]

[ 967 1810]]

hypercount:

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()

)

Epoch [1] out of 80

Training loss: 1.100.. Validation loss: 0.676..

AUC: 0.83 PR AUC: 0.33

Epoch [2] out of 80

Training loss: 1.084.. Validation loss: 0.664..

AUC: 0.84 PR AUC: 0.34

Epoch [3] out of 80

Training loss: 1.077.. Validation loss: 0.673..

AUC: 0.85 PR AUC: 0.34

Epoch [4] out of 80

Training loss: 1.076.. Validation loss: 0.659..

AUC: 0.84 PR AUC: 0.35

Epoch [5] out of 80

Training loss: 1.073.. Validation loss: 0.684..

AUC: 0.88 PR AUC: 0.34

Epoch [6] out of 80

Training loss: 1.071.. Validation loss: 0.673..

AUC: 0.87 PR AUC: 0.34

Epoch [7] out of 80

Training loss: 1.069.. Validation loss: 0.671..

AUC: 0.86 PR AUC: 0.35

Epoch [8] out of 80

Training loss: 1.066.. Validation loss: 0.689..

AUC: 0.89 PR AUC: 0.35

Epoch [9] out of 80

Training loss: 1.065.. Validation loss: 0.671..

AUC: 0.88 PR AUC: 0.35

Epoch [10] out of 80

Training loss: 1.064.. Validation loss: 0.653..

AUC: 0.88 PR AUC: 0.38

Epoch [11] out of 80

Training loss: 1.061.. Validation loss: 0.664..

AUC: 0.88 PR AUC: 0.37

Epoch [12] out of 80

Training loss: 1.060.. Validation loss: 0.670..

AUC: 0.89 PR AUC: 0.37

Epoch [13] out of 80

Training loss: 1.059.. Validation loss: 0.665..

AUC: 0.87 PR AUC: 0.38

Epoch [14] out of 80

Training loss: 1.056.. Validation loss: 0.659..

AUC: 0.88 PR AUC: 0.38

Epoch [15] out of 80

Training loss: 1.054.. Validation loss: 0.656..

AUC: 0.89 PR AUC: 0.39

Epoch [16] out of 80

Training loss: 1.050.. Validation loss: 0.659..

AUC: 0.90 PR AUC: 0.40

Epoch [17] out of 80

Training loss: 1.051.. Validation loss: 0.644..

AUC: 0.87 PR AUC: 0.40

Epoch [18] out of 80

Training loss: 1.050.. Validation loss: 0.638..

AUC: 0.88 PR AUC: 0.40

Epoch [19] out of 80

Training loss: 1.047.. Validation loss: 0.645..

AUC: 0.90 PR AUC: 0.40

Epoch [20] out of 80

Training loss: 1.048.. Validation loss: 0.641..

AUC: 0.90 PR AUC: 0.40

Epoch [21] out of 80

Training loss: 1.047.. Validation loss: 0.622..

AUC: 0.87 PR AUC: 0.42

Epoch [22] out of 80

Training loss: 1.046.. Validation loss: 0.643..

AUC: 0.91 PR AUC: 0.41

Epoch [23] out of 80

Training loss: 1.046.. Validation loss: 0.624..

AUC: 0.90 PR AUC: 0.42

Epoch [24] out of 80

Training loss: 1.044.. Validation loss: 0.785..

AUC: 0.81 PR AUC: 0.40

Epoch [25] out of 80

Training loss: 1.044.. Validation loss: 0.797..

AUC: 0.85 PR AUC: 0.39

Epoch [26] out of 80

Training loss: 1.045.. Validation loss: 0.780..

AUC: 0.82 PR AUC: 0.40

Epoch [27] out of 80

Training loss: 1.043.. Validation loss: 0.739..

AUC: 0.82 PR AUC: 0.40

Epoch [28] out of 80

Training loss: 1.042.. Validation loss: 0.817..

AUC: 0.82 PR AUC: 0.38

Epoch [29] out of 80

Training loss: 1.043.. Validation loss: 0.828..

AUC: 0.83 PR AUC: 0.39

Epoch [30] out of 80

Training loss: 1.042.. Validation loss: 0.944..

AUC: 0.77 PR AUC: 0.37

Epoch [31] out of 80

Training loss: 1.043.. Validation loss: 1.009..

AUC: 0.74 PR AUC: 0.37

Epoch [32] out of 80

Training loss: 1.042.. Validation loss: 1.025..

AUC: 0.75 PR AUC: 0.37

Epoch [33] out of 80

Training loss: 1.043.. Validation loss: 0.995..

AUC: 0.76 PR AUC: 0.37

Epoch [34] out of 80

Training loss: 1.043.. Validation loss: 0.637..

AUC: 0.85 PR AUC: 0.41

Epoch [35] out of 80

Training loss: 1.042.. Validation loss: 0.800..

AUC: 0.81 PR AUC: 0.38

Epoch [36] out of 80

Training loss: 1.042.. Validation loss: 0.797..

AUC: 0.79 PR AUC: 0.38

Epoch [37] out of 80

Training loss: 1.043.. Validation loss: 0.918..

AUC: 0.78 PR AUC: 0.38

Epoch [38] out of 80

Training loss: 1.043.. Validation loss: 0.921..

AUC: 0.75 PR AUC: 0.37

Epoch [39] out of 80

Training loss: 1.043.. Validation loss: 0.674..

AUC: 0.82 PR AUC: 0.40

Epoch [40] out of 80

Training loss: 1.044.. Validation loss: 0.881..

AUC: 0.78 PR AUC: 0.37

Epoch [41] out of 80

Training loss: 1.042.. Validation loss: 0.638..

AUC: 0.84 PR AUC: 0.41

Epoch [42] out of 80

Training loss: 1.040.. Validation loss: 0.817..

AUC: 0.80 PR AUC: 0.38

Epoch [43] out of 80

Training loss: 1.042.. Validation loss: 0.787..

AUC: 0.78 PR AUC: 0.39

Epoch [44] out of 80

Training loss: 1.039.. Validation loss: 0.839..

AUC: 0.79 PR AUC: 0.38

Epoch [45] out of 80

Training loss: 1.041.. Validation loss: 0.793..

AUC: 0.80 PR AUC: 0.39

Epoch [46] out of 80

Training loss: 1.038.. Validation loss: 0.829..

AUC: 0.78 PR AUC: 0.38

Epoch [47] out of 80

Training loss: 1.039.. Validation loss: 0.693..

AUC: 0.84 PR AUC: 0.40

Epoch [48] out of 80

Training loss: 1.040.. Validation loss: 0.781..

AUC: 0.82 PR AUC: 0.40

Epoch [49] out of 80

Training loss: 1.039.. Validation loss: 0.886..

AUC: 0.76 PR AUC: 0.37

Epoch [50] out of 80

Training loss: 1.037.. Validation loss: 0.609..

AUC: 0.89 PR AUC: 0.41

Epoch [51] out of 80

Training loss: 1.040.. Validation loss: 0.884..

AUC: 0.77 PR AUC: 0.38

Epoch [52] out of 80

Training loss: 1.039.. Validation loss: 0.613..

AUC: 0.90 PR AUC: 0.42

Epoch [53] out of 80

Training loss: 1.039.. Validation loss: 0.732..

AUC: 0.80 PR AUC: 0.39

Epoch [54] out of 80

Training loss: 1.039.. Validation loss: 0.640..

AUC: 0.83 PR AUC: 0.40

Epoch [55] out of 80

Training loss: 1.039.. Validation loss: 0.961..

AUC: 0.74 PR AUC: 0.36

Epoch [56] out of 80

Training loss: 1.039.. Validation loss: 0.684..

AUC: 0.82 PR AUC: 0.40

Epoch [57] out of 80

Training loss: 1.037.. Validation loss: 1.068..

AUC: 0.68 PR AUC: 0.34

Epoch [58] out of 80

Training loss: 1.038.. Validation loss: 0.641..

AUC: 0.83 PR AUC: 0.40

Epoch [59] out of 80

Training loss: 1.037.. Validation loss: 0.684..

AUC: 0.80 PR AUC: 0.39

Epoch [60] out of 80

Training loss: 1.035.. Validation loss: 0.812..

AUC: 0.76 PR AUC: 0.37

Epoch [61] out of 80

Training loss: 1.037.. Validation loss: 0.657..

AUC: 0.85 PR AUC: 0.41

Epoch [62] out of 80

Training loss: 1.038.. Validation loss: 0.856..

AUC: 0.75 PR AUC: 0.36

Epoch [63] out of 80

Training loss: 1.037.. Validation loss: 0.869..

AUC: 0.74 PR AUC: 0.37

Epoch [64] out of 80

Training loss: 1.038.. Validation loss: 0.726..

AUC: 0.80 PR AUC: 0.39

Epoch [65] out of 80

Training loss: 1.037.. Validation loss: 0.698..

AUC: 0.82 PR AUC: 0.40

Epoch [66] out of 80

Training loss: 1.036.. Validation loss: 0.604..

AUC: 0.88 PR AUC: 0.42

Epoch [67] out of 80

Training loss: 1.039.. Validation loss: 0.966..

AUC: 0.71 PR AUC: 0.34

Epoch [68] out of 80

Training loss: 1.036.. Validation loss: 1.033..

AUC: 0.71 PR AUC: 0.34

Epoch [69] out of 80

Training loss: 1.036.. Validation loss: 0.933..

AUC: 0.73 PR AUC: 0.35

Epoch [70] out of 80

Training loss: 1.037.. Validation loss: 0.955..

AUC: 0.70 PR AUC: 0.33

Epoch [71] out of 80

Training loss: 1.036.. Validation loss: 0.983..

AUC: 0.70 PR AUC: 0.34

Epoch [72] out of 80

Training loss: 1.036.. Validation loss: 0.597..

AUC: 0.89 PR AUC: 0.43

Epoch [73] out of 80

Training loss: 1.037.. Validation loss: 0.868..

AUC: 0.73 PR AUC: 0.33

Epoch [74] out of 80

Training loss: 1.037.. Validation loss: 0.611..

AUC: 0.86 PR AUC: 0.41

Epoch [75] out of 80

Training loss: 1.037.. Validation loss: 0.605..

AUC: 0.87 PR AUC: 0.43

Epoch [76] out of 80

Training loss: 1.036.. Validation loss: 0.839..

AUC: 0.76 PR AUC: 0.36

Epoch [77] out of 80

Training loss: 1.035.. Validation loss: 0.894..

AUC: 0.70 PR AUC: 0.33

Epoch [78] out of 80

Training loss: 1.037.. Validation loss: 0.650..

AUC: 0.82 PR AUC: 0.39

Epoch [79] out of 80

Training loss: 1.035.. Validation loss: 0.598..

AUC: 0.87 PR AUC: 0.43

Epoch [80] out of 80

Training loss: 1.035.. Validation loss: 0.597..

AUC: 0.87 PR AUC: 0.43

Finished Training

starttime = 2021-01-07 00:08:34.013532

endtime = 2021-01-07 02:18:38.227011

Last model

Area Under ROC Curve: 0.70

Area Under PR Curve(AP): 0.86

Brier score : 0.224

Accuracy for Classifier : 0.65

Cut off: 0.3484

[[1950 49]

[1599 1178]]

Best model

Area Under ROC Curve: 0.75

Area Under PR Curve(AP): 0.87

Brier score : 0.192

Accuracy for Classifier : 0.71

Cut off: 0.3586

[[1935 64]

[1318 1459]]

hypercount:

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: 1.170.. Validation loss: 0.981..

AUC: 0.86 PR AUC: 0.29

Epoch [2] out of 80

Training loss: 1.116.. Validation loss: 1.093..

AUC: 0.81 PR AUC: 0.31

Epoch [3] out of 80

Training loss: 1.116.. Validation loss: 1.119..

AUC: 0.73 PR AUC: 0.31

Epoch [4] out of 80

Training loss: 1.101.. Validation loss: 1.117..

AUC: 0.80 PR AUC: 0.34

Epoch [5] out of 80

Training loss: 1.090.. Validation loss: 1.116..

AUC: 0.75 PR AUC: 0.33

Epoch [6] out of 80

Training loss: 1.085.. Validation loss: 1.122..

AUC: 0.74 PR AUC: 0.33

Epoch [7] out of 80

Training loss: 1.079.. Validation loss: 1.120..

AUC: 0.73 PR AUC: 0.32

Epoch [8] out of 80

Training loss: 1.076.. Validation loss: 1.135..

AUC: 0.76 PR AUC: 0.33

Epoch [9] out of 80

Training loss: 1.072.. Validation loss: 1.140..

AUC: 0.76 PR AUC: 0.33

Epoch [10] out of 80

Training loss: 1.070.. Validation loss: 1.139..

AUC: 0.78 PR AUC: 0.34

Epoch [11] out of 80

Training loss: 1.067.. Validation loss: 1.144..

AUC: 0.79 PR AUC: 0.34

Epoch [12] out of 80

Training loss: 1.064.. Validation loss: 1.144..

AUC: 0.78 PR AUC: 0.34

Epoch [13] out of 80

Training loss: 1.064.. Validation loss: 1.149..

AUC: 0.80 PR AUC: 0.34

Epoch [14] out of 80

Training loss: 1.062.. Validation loss: 1.153..

AUC: 0.79 PR AUC: 0.34

Epoch [15] out of 80

Training loss: 1.062.. Validation loss: 1.131..

AUC: 0.78 PR AUC: 0.34

Epoch [16] out of 80

Training loss: 1.059.. Validation loss: 1.143..

AUC: 0.79 PR AUC: 0.34

Epoch [17] out of 80

Training loss: 1.058.. Validation loss: 1.146..

AUC: 0.78 PR AUC: 0.34

Epoch [18] out of 80

Training loss: 1.057.. Validation loss: 1.157..

AUC: 0.81 PR AUC: 0.35

Epoch [19] out of 80

Training loss: 1.055.. Validation loss: 1.148..

AUC: 0.78 PR AUC: 0.35

Epoch [20] out of 80

Training loss: 1.055.. Validation loss: 1.148..

AUC: 0.78 PR AUC: 0.35

Epoch [21] out of 80

Training loss: 1.054.. Validation loss: 1.144..

AUC: 0.77 PR AUC: 0.35

Epoch [22] out of 80

Training loss: 1.053.. Validation loss: 1.142..

AUC: 0.77 PR AUC: 0.35

Epoch [23] out of 80

Training loss: 1.051.. Validation loss: 1.153..

AUC: 0.78 PR AUC: 0.36

Epoch [24] out of 80

Training loss: 1.050.. Validation loss: 1.139..

AUC: 0.75 PR AUC: 0.35

Epoch [25] out of 80

Training loss: 1.049.. Validation loss: 1.146..

AUC: 0.77 PR AUC: 0.36

Epoch [26] out of 80

Training loss: 1.047.. Validation loss: 1.151..

AUC: 0.76 PR AUC: 0.36

Epoch [27] out of 80

Training loss: 1.046.. Validation loss: 1.151..

AUC: 0.76 PR AUC: 0.36

Epoch [28] out of 80

Training loss: 1.046.. Validation loss: 1.151..

AUC: 0.75 PR AUC: 0.36

Epoch [29] out of 80

Training loss: 1.043.. Validation loss: 1.157..

AUC: 0.75 PR AUC: 0.37

Epoch [30] out of 80

Training loss: 1.041.. Validation loss: 1.167..

AUC: 0.76 PR AUC: 0.37

Epoch [31] out of 80

Training loss: 1.040.. Validation loss: 1.179..

AUC: 0.77 PR AUC: 0.37

Epoch [32] out of 80

Training loss: 1.038.. Validation loss: 1.171..

AUC: 0.75 PR AUC: 0.37

Epoch [33] out of 80

Training loss: 1.037.. Validation loss: 1.183..

AUC: 0.76 PR AUC: 0.37

Epoch [34] out of 80

Training loss: 1.037.. Validation loss: 1.179..

AUC: 0.76 PR AUC: 0.38

Epoch [35] out of 80

Training loss: 1.034.. Validation loss: 1.186..

AUC: 0.76 PR AUC: 0.38

Epoch [36] out of 80

Training loss: 1.033.. Validation loss: 1.187..

AUC: 0.75 PR AUC: 0.38

Epoch [37] out of 80

Training loss: 1.032.. Validation loss: 1.194..

AUC: 0.75 PR AUC: 0.38

Epoch [38] out of 80

Training loss: 1.031.. Validation loss: 1.190..

AUC: 0.74 PR AUC: 0.38

Epoch [39] out of 80

Training loss: 1.029.. Validation loss: 1.197..

AUC: 0.76 PR AUC: 0.38

Epoch [40] out of 80

Training loss: 1.029.. Validation loss: 1.203..

AUC: 0.77 PR AUC: 0.38

Epoch [41] out of 80

Training loss: 1.028.. Validation loss: 1.197..

AUC: 0.74 PR AUC: 0.38

Epoch [42] out of 80

Training loss: 1.027.. Validation loss: 1.190..

AUC: 0.75 PR AUC: 0.38

Epoch [43] out of 80

Training loss: 1.026.. Validation loss: 1.185..

AUC: 0.75 PR AUC: 0.38

Epoch [44] out of 80

Training loss: 1.025.. Validation loss: 1.192..

AUC: 0.74 PR AUC: 0.38

Epoch [45] out of 80

Training loss: 1.024.. Validation loss: 1.186..

AUC: 0.73 PR AUC: 0.38

Epoch [46] out of 80

Training loss: 1.025.. Validation loss: 1.194..

AUC: 0.75 PR AUC: 0.38

Epoch [47] out of 80

Training loss: 1.025.. Validation loss: 1.181..

AUC: 0.72 PR AUC: 0.37

Epoch [48] out of 80

Training loss: 1.024.. Validation loss: 1.185..

AUC: 0.75 PR AUC: 0.38

Epoch [49] out of 80

Training loss: 1.021.. Validation loss: 1.186..

AUC: 0.74 PR AUC: 0.38

Epoch [50] out of 80

Training loss: 1.021.. Validation loss: 1.195..

AUC: 0.75 PR AUC: 0.38

Epoch [51] out of 80

Training loss: 1.020.. Validation loss: 1.196..

AUC: 0.74 PR AUC: 0.38

Epoch [52] out of 80

Training loss: 1.020.. Validation loss: 1.192..

AUC: 0.74 PR AUC: 0.38

Epoch [53] out of 80

Training loss: 1.018.. Validation loss: 1.205..

AUC: 0.75 PR AUC: 0.38

Epoch [54] out of 80

Training loss: 1.018.. Validation loss: 1.208..

AUC: 0.74 PR AUC: 0.38

Epoch [55] out of 80

Training loss: 1.018.. Validation loss: 1.208..

AUC: 0.73 PR AUC: 0.38

Epoch [56] out of 80

Training loss: 1.018.. Validation loss: 1.206..

AUC: 0.74 PR AUC: 0.38

Epoch [57] out of 80

Training loss: 1.016.. Validation loss: 1.212..

AUC: 0.74 PR AUC: 0.38

Epoch [58] out of 80

Training loss: 1.017.. Validation loss: 1.208..

AUC: 0.72 PR AUC: 0.38

Epoch [59] out of 80

Training loss: 1.015.. Validation loss: 1.215..

AUC: 0.73 PR AUC: 0.39

Epoch [60] out of 80

Training loss: 1.014.. Validation loss: 1.215..

AUC: 0.71 PR AUC: 0.38

Epoch [61] out of 80

Training loss: 1.015.. Validation loss: 1.220..

AUC: 0.73 PR AUC: 0.38

Epoch [62] out of 80

Training loss: 1.014.. Validation loss: 1.217..

AUC: 0.72 PR AUC: 0.38

Epoch [63] out of 80

Training loss: 1.014.. Validation loss: 1.217..

AUC: 0.73 PR AUC: 0.39

Epoch [64] out of 80

Training loss: 1.013.. Validation loss: 1.221..

AUC: 0.72 PR AUC: 0.39

Epoch [65] out of 80

Training loss: 1.013.. Validation loss: 1.228..

AUC: 0.73 PR AUC: 0.39

Epoch [66] out of 80

Training loss: 1.012.. Validation loss: 1.223..

AUC: 0.72 PR AUC: 0.38

Epoch [67] out of 80

Training loss: 1.012.. Validation loss: 1.225..

AUC: 0.73 PR AUC: 0.38

Epoch [68] out of 80

Training loss: 1.012.. Validation loss: 1.223..

AUC: 0.72 PR AUC: 0.39

Epoch [69] out of 80

Training loss: 1.011.. Validation loss: 1.222..

AUC: 0.71 PR AUC: 0.38

Epoch [70] out of 80

Training loss: 1.010.. Validation loss: 1.224..

AUC: 0.71 PR AUC: 0.38

Epoch [71] out of 80

Training loss: 1.010.. Validation loss: 1.242..

AUC: 0.74 PR AUC: 0.39

Epoch [72] out of 80

Training loss: 1.011.. Validation loss: 1.226..

AUC: 0.71 PR AUC: 0.39

Epoch [73] out of 80

Training loss: 1.009.. Validation loss: 1.235..

AUC: 0.71 PR AUC: 0.38

Epoch [74] out of 80

Training loss: 1.011.. Validation loss: 1.222..

AUC: 0.72 PR AUC: 0.39

Epoch [75] out of 80

Training loss: 1.008.. Validation loss: 1.232..

AUC: 0.72 PR AUC: 0.38

Epoch [76] out of 80

Training loss: 1.010.. Validation loss: 1.230..

AUC: 0.71 PR AUC: 0.38

Epoch [77] out of 80

Training loss: 1.009.. Validation loss: 1.232..

AUC: 0.72 PR AUC: 0.38

Epoch [78] out of 80

Training loss: 1.009.. Validation loss: 1.224..

AUC: 0.72 PR AUC: 0.39

Epoch [79] out of 80

Training loss: 1.009.. Validation loss: 1.219..

AUC: 0.71 PR AUC: 0.38

Epoch [80] out of 80

Training loss: 1.010.. Validation loss: 1.221..

AUC: 0.72 PR AUC: 0.39

Finished Training

starttime = 2021-01-07 02:18:39.094173

endtime = 2021-01-07 04:28:35.006517

Last model

Area Under ROC Curve: 0.55

Area Under PR Curve(AP): 0.73

Brier score : 0.298

Accuracy for Classifier : 0.59

Cut off: 0.7736

[[1953 46]

[1895 882]]

Best model

Area Under ROC Curve: 0.64

Area Under PR Curve(AP): 0.79

Brier score : 0.255

Accuracy for Classifier : 0.69

Cut off: 0.6691

[[1944 55]

[1403 1374]]

hypercount:

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: 1.129.. Validation loss: 0.597..

AUC: 0.88 PR AUC: 0.55

Epoch [2] out of 80

Training loss: 1.101.. Validation loss: 0.613..

AUC: 0.90 PR AUC: 0.50

Epoch [3] out of 80

Training loss: 1.095.. Validation loss: 0.637..

AUC: 0.90 PR AUC: 0.44

Epoch [4] out of 80

Training loss: 1.090.. Validation loss: 0.631..

AUC: 0.91 PR AUC: 0.45

Epoch [5] out of 80

Training loss: 1.086.. Validation loss: 0.646..

AUC: 0.90 PR AUC: 0.50

Epoch [6] out of 80

Training loss: 1.081.. Validation loss: 0.609..

AUC: 0.90 PR AUC: 0.51

Epoch [7] out of 80

Training loss: 1.075.. Validation loss: 0.593..

AUC: 0.90 PR AUC: 0.52

Epoch [8] out of 80

Training loss: 1.070.. Validation loss: 0.589..

AUC: 0.90 PR AUC: 0.52

Epoch [9] out of 80

Training loss: 1.067.. Validation loss: 0.561..

AUC: 0.90 PR AUC: 0.54

Epoch [10] out of 80

Training loss: 1.064.. Validation loss: 0.515..

AUC: 0.90 PR AUC: 0.53

Epoch [11] out of 80

Training loss: 1.060.. Validation loss: 0.472..

AUC: 0.90 PR AUC: 0.53

Epoch [12] out of 80

Training loss: 1.058.. Validation loss: 0.459..

AUC: 0.90 PR AUC: 0.53

Epoch [13] out of 80

Training loss: 1.055.. Validation loss: 0.449..

AUC: 0.90 PR AUC: 0.51

Epoch [14] out of 80

Training loss: 1.051.. Validation loss: 0.433..

AUC: 0.91 PR AUC: 0.51

Epoch [15] out of 80

Training loss: 1.051.. Validation loss: 0.447..

AUC: 0.91 PR AUC: 0.53

Epoch [16] out of 80

Training loss: 1.048.. Validation loss: 0.426..

AUC: 0.91 PR AUC: 0.51

Epoch [17] out of 80

Training loss: 1.048.. Validation loss: 0.430..

AUC: 0.91 PR AUC: 0.51

Epoch [18] out of 80

Training loss: 1.047.. Validation loss: 0.418..

AUC: 0.91 PR AUC: 0.51

Epoch [19] out of 80

Training loss: 1.045.. Validation loss: 0.416..

AUC: 0.91 PR AUC: 0.52

Epoch [20] out of 80

Training loss: 1.043.. Validation loss: 0.394..

AUC: 0.91 PR AUC: 0.51

Epoch [21] out of 80

Training loss: 1.043.. Validation loss: 0.386..

AUC: 0.91 PR AUC: 0.51

Epoch [22] out of 80

Training loss: 1.042.. Validation loss: 0.402..

AUC: 0.91 PR AUC: 0.51

Epoch [23] out of 80

Training loss: 1.039.. Validation loss: 0.389..

AUC: 0.91 PR AUC: 0.52

Epoch [24] out of 80

Training loss: 1.038.. Validation loss: 0.378..

AUC: 0.90 PR AUC: 0.48

Epoch [25] out of 80

Training loss: 1.037.. Validation loss: 0.379..

AUC: 0.90 PR AUC: 0.52

Epoch [26] out of 80

Training loss: 1.035.. Validation loss: 0.364..

AUC: 0.91 PR AUC: 0.51

Epoch [27] out of 80

Training loss: 1.033.. Validation loss: 0.368..

AUC: 0.91 PR AUC: 0.52

Epoch [28] out of 80

Training loss: 1.029.. Validation loss: 0.384..

AUC: 0.91 PR AUC: 0.53

Epoch [29] out of 80

Training loss: 1.026.. Validation loss: 0.364..

AUC: 0.91 PR AUC: 0.53

Epoch [30] out of 80

Training loss: 1.022.. Validation loss: 0.362..

AUC: 0.91 PR AUC: 0.52

Epoch [31] out of 80

Training loss: 1.017.. Validation loss: 0.349..

AUC: 0.91 PR AUC: 0.52

Epoch [32] out of 80

Training loss: 1.015.. Validation loss: 0.353..

AUC: 0.91 PR AUC: 0.53

Epoch [33] out of 80

Training loss: 1.014.. Validation loss: 0.352..

AUC: 0.90 PR AUC: 0.53

Epoch [34] out of 80

Training loss: 1.010.. Validation loss: 0.358..

AUC: 0.91 PR AUC: 0.53

Epoch [35] out of 80

Training loss: 1.009.. Validation loss: 0.391..

AUC: 0.89 PR AUC: 0.53

Epoch [36] out of 80

Training loss: 1.008.. Validation loss: 0.360..

AUC: 0.90 PR AUC: 0.53

Epoch [37] out of 80

Training loss: 1.005.. Validation loss: 0.358..

AUC: 0.90 PR AUC: 0.53

Epoch [38] out of 80

Training loss: 1.003.. Validation loss: 0.349..

AUC: 0.91 PR AUC: 0.53

Epoch [39] out of 80

Training loss: 1.003.. Validation loss: 0.346..

AUC: 0.91 PR AUC: 0.53

Epoch [40] out of 80

Training loss: 1.001.. Validation loss: 0.361..

AUC: 0.90 PR AUC: 0.53

Epoch [41] out of 80

Training loss: 1.003.. Validation loss: 0.351..

AUC: 0.91 PR AUC: 0.54

Epoch [42] out of 80

Training loss: 1.001.. Validation loss: 0.353..

AUC: 0.90 PR AUC: 0.53

Epoch [43] out of 80

Training loss: 1.001.. Validation loss: 0.353..

AUC: 0.91 PR AUC: 0.52

Epoch [44] out of 80

Training loss: 1.000.. Validation loss: 0.368..

AUC: 0.89 PR AUC: 0.53

Epoch [45] out of 80

Training loss: 1.000.. Validation loss: 0.359..

AUC: 0.90 PR AUC: 0.53

Epoch [46] out of 80

Training loss: 1.000.. Validation loss: 0.350..

AUC: 0.91 PR AUC: 0.52

Epoch [47] out of 80

Training loss: 0.999.. Validation loss: 0.395..

AUC: 0.89 PR AUC: 0.53

Epoch [48] out of 80

Training loss: 0.998.. Validation loss: 0.379..

AUC: 0.89 PR AUC: 0.50

Epoch [49] out of 80

Training loss: 0.999.. Validation loss: 0.353..

AUC: 0.91 PR AUC: 0.53

Epoch [50] out of 80

Training loss: 1.087.. Validation loss: 0.382..

AUC: 0.92 PR AUC: 0.53

Epoch [51] out of 80

Training loss: 1.052.. Validation loss: 0.384..

AUC: 0.92 PR AUC: 0.54

Epoch [52] out of 80

Training loss: 1.042.. Validation loss: 0.385..

AUC: 0.92 PR AUC: 0.52

Epoch [53] out of 80

Training loss: 1.027.. Validation loss: 0.381..

AUC: 0.92 PR AUC: 0.52

Epoch [54] out of 80

Training loss: 1.021.. Validation loss: 0.369..

AUC: 0.92 PR AUC: 0.52

Epoch [55] out of 80

Training loss: 1.018.. Validation loss: 0.373..

AUC: 0.91 PR AUC: 0.54

Epoch [56] out of 80

Training loss: 1.025.. Validation loss: 0.370..

AUC: 0.91 PR AUC: 0.53

Epoch [57] out of 80

Training loss: 1.035.. Validation loss: 0.381..

AUC: 0.91 PR AUC: 0.52

Epoch [58] out of 80

Training loss: 1.114.. Validation loss: 0.530..

AUC: 0.90 PR AUC: 0.52

Epoch [59] out of 80

Training loss: 1.074.. Validation loss: 0.496..

AUC: 0.90 PR AUC: 0.53

Epoch [60] out of 80

Training loss: 1.064.. Validation loss: 0.494..

AUC: 0.90 PR AUC: 0.54

Epoch [61] out of 80

Training loss: 1.043.. Validation loss: 0.446..

AUC: 0.91 PR AUC: 0.54

Epoch [62] out of 80

Training loss: 1.074.. Validation loss: 0.460..

AUC: 0.91 PR AUC: 0.54

Epoch [63] out of 80

Training loss: 1.041.. Validation loss: 0.447..

AUC: 0.91 PR AUC: 0.55

Epoch [64] out of 80

Training loss: 1.037.. Validation loss: 0.439..

AUC: 0.91 PR AUC: 0.54

Epoch [65] out of 80

Training loss: 1.064.. Validation loss: 0.460..

AUC: 0.90 PR AUC: 0.53

Epoch [66] out of 80

Training loss: 1.045.. Validation loss: 0.475..

AUC: 0.90 PR AUC: 0.54

Epoch [67] out of 80

Training loss: 1.069.. Validation loss: 0.510..

AUC: 0.88 PR AUC: 0.53

Epoch [68] out of 80

Training loss: 1.051.. Validation loss: 0.495..

AUC: 0.89 PR AUC: 0.54

Epoch [69] out of 80

Training loss: 1.043.. Validation loss: 0.450..

AUC: 0.90 PR AUC: 0.55

Epoch [70] out of 80

Training loss: 1.073.. Validation loss: 0.458..

AUC: 0.91 PR AUC: 0.56

Epoch [71] out of 80

Training loss: 1.044.. Validation loss: 0.450..

AUC: 0.90 PR AUC: 0.56

Epoch [72] out of 80

Training loss: 1.041.. Validation loss: 0.443..

AUC: 0.90 PR AUC: 0.55

Epoch [73] out of 80

Training loss: 1.048.. Validation loss: 0.458..

AUC: 0.90 PR AUC: 0.56

Epoch [74] out of 80

Training loss: 1.028.. Validation loss: 0.429..

AUC: 0.90 PR AUC: 0.55

Epoch [75] out of 80

Training loss: 1.019.. Validation loss: 0.432..

AUC: 0.90 PR AUC: 0.54

Epoch [76] out of 80

Training loss: 1.020.. Validation loss: 0.410..

AUC: 0.90 PR AUC: 0.56

Epoch [77] out of 80

Training loss: 1.119.. Validation loss: 0.644..

AUC: 0.73 PR AUC: 0.39

Epoch [78] out of 80

Training loss: 1.098.. Validation loss: 0.664..

AUC: 0.71 PR AUC: 0.39

Epoch [79] out of 80

Training loss: 1.083.. Validation loss: 0.688..

AUC: 0.73 PR AUC: 0.41

Epoch [80] out of 80

Training loss: 1.083.. Validation loss: 0.602..

AUC: 0.81 PR AUC: 0.46

Finished Training

starttime = 2021-01-07 04:28:35.856770

endtime = 2021-01-07 08:44:09.197901

Last model

Area Under ROC Curve: 0.64

Area Under PR Curve(AP): 0.75

Brier score : 0.280

Accuracy for Classifier : 0.63

Cut off: 0.4639

[[1520 479]

[1271 1506]]

Best model

Area Under ROC Curve: 0.73

Area Under PR Curve(AP): 0.82

Brier score : 0.252

Accuracy for Classifier : 0.76

Cut off: 0.1324

[[1515 484]

[ 676 2101]]

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: 1.189.. Validation loss: 0.969..

AUC: 0.46 PR AUC: 0.21

Epoch [2] out of 80

Training loss: 1.140.. Validation loss: 1.184..

AUC: 0.52 PR AUC: 0.23

Epoch [3] out of 80

Training loss: 1.116.. Validation loss: 1.281..

AUC: 0.53 PR AUC: 0.25

Epoch [4] out of 80

Training loss: 1.110.. Validation loss: 1.312..

AUC: 0.55 PR AUC: 0.26

Epoch [5] out of 80

Training loss: 1.107.. Validation loss: 1.313..

AUC: 0.56 PR AUC: 0.26

Epoch [6] out of 80

Training loss: 1.104.. Validation loss: 1.295..

AUC: 0.55 PR AUC: 0.26

Epoch [7] out of 80

Training loss: 1.102.. Validation loss: 1.295..

AUC: 0.53 PR AUC: 0.25

Epoch [8] out of 80

Training loss: 1.100.. Validation loss: 1.273..

AUC: 0.50 PR AUC: 0.24

Epoch [9] out of 80

Training loss: 1.096.. Validation loss: 1.276..

AUC: 0.54 PR AUC: 0.25

Epoch [10] out of 80

Training loss: 1.093.. Validation loss: 1.279..

AUC: 0.57 PR AUC: 0.26

Epoch [11] out of 80

Training loss: 1.091.. Validation loss: 1.272..

AUC: 0.59 PR AUC: 0.28

Epoch [12] out of 80

Training loss: 1.089.. Validation loss: 1.277..

AUC: 0.62 PR AUC: 0.29

Epoch [13] out of 80

Training loss: 1.087.. Validation loss: 1.281..

AUC: 0.65 PR AUC: 0.31

Epoch [14] out of 80

Training loss: 1.086.. Validation loss: 1.289..

AUC: 0.68 PR AUC: 0.32

Epoch [15] out of 80

Training loss: 1.085.. Validation loss: 1.271..

AUC: 0.64 PR AUC: 0.31

Epoch [16] out of 80

Training loss: 1.083.. Validation loss: 1.287..

AUC: 0.65 PR AUC: 0.32

Epoch [17] out of 80

Training loss: 1.080.. Validation loss: 1.298..

AUC: 0.66 PR AUC: 0.32

Epoch [18] out of 80

Training loss: 1.081.. Validation loss: 1.289..

AUC: 0.66 PR AUC: 0.33

Epoch [19] out of 80

Training loss: 1.080.. Validation loss: 1.300..

AUC: 0.68 PR AUC: 0.34

Epoch [20] out of 80

Training loss: 1.080.. Validation loss: 1.313..

AUC: 0.68 PR AUC: 0.34

Epoch [21] out of 80

Training loss: 1.078.. Validation loss: 1.321..

AUC: 0.69 PR AUC: 0.34

Epoch [22] out of 80

Training loss: 1.078.. Validation loss: 1.327..

AUC: 0.68 PR AUC: 0.34

Epoch [23] out of 80

Training loss: 1.076.. Validation loss: 1.332..

AUC: 0.68 PR AUC: 0.35

Epoch [24] out of 80

Training loss: 1.075.. Validation loss: 1.351..

AUC: 0.69 PR AUC: 0.35

Epoch [25] out of 80

Training loss: 1.074.. Validation loss: 1.339..

AUC: 0.68 PR AUC: 0.35

Epoch [26] out of 80

Training loss: 1.073.. Validation loss: 1.359..

AUC: 0.71 PR AUC: 0.36

Epoch [27] out of 80

Training loss: 1.073.. Validation loss: 1.340..

AUC: 0.68 PR AUC: 0.36

Epoch [28] out of 80

Training loss: 1.072.. Validation loss: 1.348..

AUC: 0.70 PR AUC: 0.37

Epoch [29] out of 80

Training loss: 1.071.. Validation loss: 1.337..

AUC: 0.69 PR AUC: 0.36

Epoch [30] out of 80

Training loss: 1.070.. Validation loss: 1.342..

AUC: 0.69 PR AUC: 0.37

Epoch [31] out of 80

Training loss: 1.070.. Validation loss: 1.356..

AUC: 0.72 PR AUC: 0.38

Epoch [32] out of 80

Training loss: 1.068.. Validation loss: 1.347..

AUC: 0.71 PR AUC: 0.38

Epoch [33] out of 80

Training loss: 1.067.. Validation loss: 1.341..

AUC: 0.71 PR AUC: 0.38

Epoch [34] out of 80

Training loss: 1.068.. Validation loss: 1.349..

AUC: 0.72 PR AUC: 0.38

Epoch [35] out of 80

Training loss: 1.066.. Validation loss: 1.332..

AUC: 0.71 PR AUC: 0.38

Epoch [36] out of 80

Training loss: 1.067.. Validation loss: 1.329..

AUC: 0.72 PR AUC: 0.39

Epoch [37] out of 80

Training loss: 1.066.. Validation loss: 1.323..

AUC: 0.71 PR AUC: 0.39

Epoch [38] out of 80

Training loss: 1.066.. Validation loss: 1.333..

AUC: 0.73 PR AUC: 0.39

Epoch [39] out of 80

Training loss: 1.065.. Validation loss: 1.320..

AUC: 0.73 PR AUC: 0.39

Epoch [40] out of 80

Training loss: 1.064.. Validation loss: 1.318..

AUC: 0.73 PR AUC: 0.39

Epoch [41] out of 80

Training loss: 1.065.. Validation loss: 1.302..

AUC: 0.72 PR AUC: 0.39

Epoch [42] out of 80

Training loss: 1.064.. Validation loss: 1.298..

AUC: 0.72 PR AUC: 0.39

Epoch [43] out of 80

Training loss: 1.064.. Validation loss: 1.298..

AUC: 0.72 PR AUC: 0.40

Epoch [44] out of 80

Training loss: 1.063.. Validation loss: 1.306..

AUC: 0.74 PR AUC: 0.40

Epoch [45] out of 80

Training loss: 1.063.. Validation loss: 1.290..

AUC: 0.73 PR AUC: 0.40

Epoch [46] out of 80

Training loss: 1.062.. Validation loss: 1.290..

AUC: 0.74 PR AUC: 0.40

Epoch [47] out of 80

Training loss: 1.062.. Validation loss: 1.271..

AUC: 0.72 PR AUC: 0.40

Epoch [48] out of 80

Training loss: 1.061.. Validation loss: 1.262..

AUC: 0.72 PR AUC: 0.40

Epoch [49] out of 80

Training loss: 1.061.. Validation loss: 1.252..

AUC: 0.72 PR AUC: 0.40

Epoch [50] out of 80

Training loss: 1.060.. Validation loss: 1.256..

AUC: 0.73 PR AUC: 0.41

Epoch [51] out of 80

Training loss: 1.060.. Validation loss: 1.268..

AUC: 0.75 PR AUC: 0.41

Epoch [52] out of 80

Training loss: 1.060.. Validation loss: 1.249..

AUC: 0.73 PR AUC: 0.41

Epoch [53] out of 80

Training loss: 1.060.. Validation loss: 1.253..

AUC: 0.74 PR AUC: 0.41

Epoch [54] out of 80

Training loss: 1.058.. Validation loss: 1.233..

AUC: 0.73 PR AUC: 0.41

Epoch [55] out of 80

Training loss: 1.058.. Validation loss: 1.252..

AUC: 0.76 PR AUC: 0.42

Epoch [56] out of 80

Training loss: 1.059.. Validation loss: 1.236..

AUC: 0.74 PR AUC: 0.41

Epoch [57] out of 80

Training loss: 1.058.. Validation loss: 1.213..

AUC: 0.72 PR AUC: 0.41

Epoch [58] out of 80

Training loss: 1.058.. Validation loss: 1.207..

AUC: 0.73 PR AUC: 0.41

Epoch [59] out of 80

Training loss: 1.057.. Validation loss: 1.235..

AUC: 0.77 PR AUC: 0.42

Epoch [60] out of 80

Training loss: 1.057.. Validation loss: 1.218..

AUC: 0.75 PR AUC: 0.42

Epoch [61] out of 80

Training loss: 1.057.. Validation loss: 1.185..

AUC: 0.71 PR AUC: 0.41

Epoch [62] out of 80

Training loss: 1.056.. Validation loss: 1.198..

AUC: 0.74 PR AUC: 0.42

Epoch [63] out of 80

Training loss: 1.056.. Validation loss: 1.197..

AUC: 0.75 PR AUC: 0.42

Epoch [64] out of 80

Training loss: 1.055.. Validation loss: 1.199..

AUC: 0.76 PR AUC: 0.42

Epoch [65] out of 80

Training loss: 1.055.. Validation loss: 1.174..

AUC: 0.74 PR AUC: 0.42

Epoch [66] out of 80

Training loss: 1.054.. Validation loss: 1.169..

AUC: 0.75 PR AUC: 0.42

Epoch [67] out of 80

Training loss: 1.055.. Validation loss: 1.154..

AUC: 0.73 PR AUC: 0.42

Epoch [68] out of 80

Training loss: 1.054.. Validation loss: 1.166..

AUC: 0.74 PR AUC: 0.42

Epoch [69] out of 80

Training loss: 1.055.. Validation loss: 1.159..

AUC: 0.77 PR AUC: 0.43

Epoch [70] out of 80

Training loss: 1.052.. Validation loss: 1.163..

AUC: 0.78 PR AUC: 0.42

Epoch [71] out of 80

Training loss: 1.054.. Validation loss: 1.121..

AUC: 0.74 PR AUC: 0.42

Epoch [72] out of 80

Training loss: 1.053.. Validation loss: 1.155..

AUC: 0.77 PR AUC: 0.43

Epoch [73] out of 80

Training loss: 1.053.. Validation loss: 1.117..

AUC: 0.75 PR AUC: 0.43

Epoch [74] out of 80

Training loss: 1.051.. Validation loss: 1.124..

AUC: 0.74 PR AUC: 0.42

Epoch [75] out of 80

Training loss: 1.052.. Validation loss: 1.117..

AUC: 0.75 PR AUC: 0.42

Epoch [76] out of 80

Training loss: 1.052.. Validation loss: 1.124..

AUC: 0.76 PR AUC: 0.43

Epoch [77] out of 80

Training loss: 1.050.. Validation loss: 1.111..

AUC: 0.76 PR AUC: 0.43

Epoch [78] out of 80

Training loss: 1.052.. Validation loss: 1.100..

AUC: 0.75 PR AUC: 0.42

Epoch [79] out of 80

Training loss: 1.051.. Validation loss: 1.103..

AUC: 0.75 PR AUC: 0.43

Epoch [80] out of 80

Training loss: 1.051.. Validation loss: 1.100..

AUC: 0.77 PR AUC: 0.43

Finished Training

starttime = 2021-01-07 08:44:10.318698

endtime = 2021-01-07 13:30:24.756537

Last model

Area Under ROC Curve: 0.59

Area Under PR Curve(AP): 0.75

Brier score : 0.276

Accuracy for Classifier : 0.61

Cut off: 0.7471

[[1944 55]

[1784 993]]

Best model

Area Under ROC Curve: 0.59

Area Under PR Curve(AP): 0.75

Brier score : 0.285

Accuracy for Classifier : 0.62

Cut off: 0.7601

[[1898 101]

[1691 1086]]

hypercount:

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: 1.112.. Validation loss: 1.134..

AUC: 0.51 PR AUC: 0.20

Epoch [2] out of 80

Training loss: 1.091.. Validation loss: 1.173..

AUC: 0.29 PR AUC: 0.07

Epoch [3] out of 80

Training loss: 1.078.. Validation loss: 1.247..

AUC: 0.31 PR AUC: 0.07

Epoch [4] out of 80

Training loss: 1.071.. Validation loss: 1.367..

AUC: 0.40 PR AUC: 0.10

Epoch [5] out of 80

Training loss: 1.064.. Validation loss: 1.263..

AUC: 0.59 PR AUC: 0.27

Epoch [6] out of 80

Training loss: 1.060.. Validation loss: 1.452..

AUC: 0.67 PR AUC: 0.31

Epoch [7] out of 80

Training loss: 1.055.. Validation loss: 1.460..

AUC: 0.74 PR AUC: 0.37

Epoch [8] out of 80

Training loss: 1.051.. Validation loss: 1.481..

AUC: 0.74 PR AUC: 0.38

Epoch [9] out of 80

Training loss: 1.046.. Validation loss: 1.394..

AUC: 0.76 PR AUC: 0.39

Epoch [10] out of 80

Training loss: 1.045.. Validation loss: 1.270..

AUC: 0.81 PR AUC: 0.38

Epoch [11] out of 80

Training loss: 1.041.. Validation loss: 1.221..

AUC: 0.80 PR AUC: 0.38

Epoch [12] out of 80

Training loss: 1.040.. Validation loss: 0.993..

AUC: 0.81 PR AUC: 0.37

Epoch [13] out of 80

Training loss: 1.036.. Validation loss: 1.026..

AUC: 0.86 PR AUC: 0.42

Epoch [14] out of 80

Training loss: 1.035.. Validation loss: 0.857..

AUC: 0.84 PR AUC: 0.41

Epoch [15] out of 80

Training loss: 1.031.. Validation loss: 0.833..

AUC: 0.85 PR AUC: 0.40

Epoch [16] out of 80

Training loss: 1.032.. Validation loss: 0.823..

AUC: 0.87 PR AUC: 0.42

Epoch [17] out of 80

Training loss: 1.030.. Validation loss: 0.616..

AUC: 0.87 PR AUC: 0.45

Epoch [18] out of 80

Training loss: 1.026.. Validation loss: 0.659..

AUC: 0.88 PR AUC: 0.44

Epoch [19] out of 80

Training loss: 1.026.. Validation loss: 0.647..

AUC: 0.88 PR AUC: 0.44

Epoch [20] out of 80

Training loss: 1.025.. Validation loss: 0.704..

AUC: 0.89 PR AUC: 0.41

Epoch [21] out of 80

Training loss: 1.024.. Validation loss: 0.609..

AUC: 0.90 PR AUC: 0.40

Epoch [22] out of 80

Training loss: 1.022.. Validation loss: 0.627..

AUC: 0.90 PR AUC: 0.37

Epoch [23] out of 80

Training loss: 1.022.. Validation loss: 0.638..

AUC: 0.89 PR AUC: 0.40

Epoch [24] out of 80

Training loss: 1.018.. Validation loss: 0.658..

AUC: 0.89 PR AUC: 0.36

Epoch [25] out of 80

Training loss: 1.019.. Validation loss: 0.615..

AUC: 0.88 PR AUC: 0.35

Epoch [26] out of 80

Training loss: 1.019.. Validation loss: 0.619..

AUC: 0.90 PR AUC: 0.38

Epoch [27] out of 80

Training loss: 1.016.. Validation loss: 0.622..

AUC: 0.91 PR AUC: 0.38

Epoch [28] out of 80

Training loss: 1.015.. Validation loss: 0.616..

AUC: 0.90 PR AUC: 0.38

Epoch [29] out of 80

Training loss: 1.015.. Validation loss: 0.597..

AUC: 0.88 PR AUC: 0.37

Epoch [30] out of 80

Training loss: 1.019.. Validation loss: 0.640..

AUC: 0.87 PR AUC: 0.41

Epoch [31] out of 80

Training loss: 1.016.. Validation loss: 0.611..

AUC: 0.87 PR AUC: 0.37

Epoch [32] out of 80

Training loss: 1.015.. Validation loss: 1.045..

AUC: 0.85 PR AUC: 0.37

Epoch [33] out of 80

Training loss: 1.014.. Validation loss: 0.783..

AUC: 0.88 PR AUC: 0.40

Epoch [34] out of 80

Training loss: 1.014.. Validation loss: 1.026..

AUC: 0.85 PR AUC: 0.39

Epoch [35] out of 80

Training loss: 1.013.. Validation loss: 0.604..

AUC: 0.87 PR AUC: 0.38

Epoch [36] out of 80

Training loss: 1.011.. Validation loss: 0.608..

AUC: 0.88 PR AUC: 0.38

Epoch [37] out of 80

Training loss: 1.012.. Validation loss: 0.604..

AUC: 0.89 PR AUC: 0.39

Epoch [38] out of 80

Training loss: 1.011.. Validation loss: 0.591..

AUC: 0.86 PR AUC: 0.38

Epoch [39] out of 80

Training loss: 1.012.. Validation loss: 0.595..

AUC: 0.88 PR AUC: 0.38

Epoch [40] out of 80

Training loss: 1.010.. Validation loss: 0.606..

AUC: 0.89 PR AUC: 0.37

Epoch [41] out of 80

Training loss: 1.008.. Validation loss: 0.593..

AUC: 0.88 PR AUC: 0.37

Epoch [42] out of 80

Training loss: 1.007.. Validation loss: 0.594..

AUC: 0.89 PR AUC: 0.40

Epoch [43] out of 80

Training loss: 1.006.. Validation loss: 0.599..

AUC: 0.90 PR AUC: 0.36

Epoch [44] out of 80

Training loss: 1.006.. Validation loss: 0.601..

AUC: 0.89 PR AUC: 0.36

Epoch [45] out of 80

Training loss: 1.007.. Validation loss: 0.633..

AUC: 0.87 PR AUC: 0.37

Epoch [46] out of 80

Training loss: 1.007.. Validation loss: 0.600..

AUC: 0.88 PR AUC: 0.39

Epoch [47] out of 80

Training loss: 1.010.. Validation loss: 0.584..

AUC: 0.87 PR AUC: 0.45

Epoch [48] out of 80

Training loss: 1.007.. Validation loss: 0.591..

AUC: 0.88 PR AUC: 0.43

Epoch [49] out of 80

Training loss: 1.006.. Validation loss: 0.635..

AUC: 0.84 PR AUC: 0.40

Epoch [50] out of 80

Training loss: 1.006.. Validation loss: 0.600..

AUC: 0.87 PR AUC: 0.37

Epoch [51] out of 80

Training loss: 1.004.. Validation loss: 0.594..

AUC: 0.90 PR AUC: 0.41

Epoch [52] out of 80

Training loss: 1.004.. Validation loss: 0.592..

AUC: 0.88 PR AUC: 0.41

Epoch [53] out of 80

Training loss: 1.005.. Validation loss: 0.589..

AUC: 0.88 PR AUC: 0.40

Epoch [54] out of 80

Training loss: 1.003.. Validation loss: 0.588..

AUC: 0.85 PR AUC: 0.41

Epoch [55] out of 80

Training loss: 1.003.. Validation loss: 0.596..

AUC: 0.88 PR AUC: 0.37

Epoch [56] out of 80

Training loss: 1.003.. Validation loss: 0.601..

AUC: 0.87 PR AUC: 0.36

Epoch [57] out of 80

Training loss: 1.003.. Validation loss: 0.605..

AUC: 0.88 PR AUC: 0.36

Epoch [58] out of 80

Training loss: 1.001.. Validation loss: 0.590..

AUC: 0.87 PR AUC: 0.38

Epoch [59] out of 80

Training loss: 1.002.. Validation loss: 0.584..

AUC: 0.87 PR AUC: 0.41

Epoch [60] out of 80

Training loss: 1.001.. Validation loss: 0.600..

AUC: 0.88 PR AUC: 0.37

Epoch [61] out of 80

Training loss: 1.001.. Validation loss: 0.582..

AUC: 0.86 PR AUC: 0.41

Epoch [62] out of 80

Training loss: 0.999.. Validation loss: 0.592..

AUC: 0.86 PR AUC: 0.37

Epoch [63] out of 80

Training loss: 1.005.. Validation loss: 0.579..

AUC: 0.87 PR AUC: 0.42

Epoch [64] out of 80

Training loss: 1.005.. Validation loss: 0.594..

AUC: 0.85 PR AUC: 0.36

Epoch [65] out of 80

Training loss: 1.003.. Validation loss: 0.591..

AUC: 0.87 PR AUC: 0.39

Epoch [66] out of 80

Training loss: 1.003.. Validation loss: 0.598..

AUC: 0.87 PR AUC: 0.36

Epoch [67] out of 80

Training loss: 1.004.. Validation loss: 0.591..

AUC: 0.85 PR AUC: 0.37

Epoch [68] out of 80

Training loss: 1.002.. Validation loss: 0.591..

AUC: 0.87 PR AUC: 0.40

Epoch [69] out of 80

Training loss: 1.002.. Validation loss: 0.585..

AUC: 0.87 PR AUC: 0.39

Epoch [70] out of 80

Training loss: 1.002.. Validation loss: 0.610..

AUC: 0.88 PR AUC: 0.36

Epoch [71] out of 80

Training loss: 1.001.. Validation loss: 0.600..

AUC: 0.88 PR AUC: 0.39

Epoch [72] out of 80

Training loss: 1.000.. Validation loss: 0.593..

AUC: 0.87 PR AUC: 0.37

Epoch [73] out of 80

Training loss: 1.001.. Validation loss: 0.599..

AUC: 0.86 PR AUC: 0.35

Epoch [74] out of 80

Training loss: 1.000.. Validation loss: 0.595..

AUC: 0.86 PR AUC: 0.37

Epoch [75] out of 80

Training loss: 1.001.. Validation loss: 0.595..

AUC: 0.85 PR AUC: 0.36

Epoch [76] out of 80

Training loss: 1.001.. Validation loss: 0.608..

AUC: 0.86 PR AUC: 0.34

Epoch [77] out of 80

Training loss: 0.999.. Validation loss: 0.596..

AUC: 0.85 PR AUC: 0.36

Epoch [78] out of 80

Training loss: 1.000.. Validation loss: 0.591..

AUC: 0.86 PR AUC: 0.37

Epoch [79] out of 80

Training loss: 0.999.. Validation loss: 0.588..

AUC: 0.85 PR AUC: 0.37

Epoch [80] out of 80

Training loss: 0.998.. Validation loss: 0.593..

AUC: 0.83 PR AUC: 0.35

Finished Training

starttime = 2021-01-07 13:30:25.916395

endtime = 2021-01-07 19:51:51.947743

Last model

Area Under ROC Curve: 0.65

Area Under PR Curve(AP): 0.80

Brier score : 0.240

Accuracy for Classifier : 0.59

Cut off: 0.4604

[[1962 37]

[1933 844]]

Best model

Area Under ROC Curve: 0.75

Area Under PR Curve(AP): 0.87

Brier score : 0.199

Accuracy for Classifier : 0.71

Cut off: 0.3446

[[1903 96]

[1303 1474]]

hypercount: 6

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()

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Epoch [1] out of 80

Training loss: 1.241.. Validation loss: 0.824..

AUC: 0.70 PR AUC: 0.20

Epoch [2] out of 80

Training loss: 1.174.. Validation loss: 0.968..

AUC: 0.55 PR AUC: 0.18

Epoch [3] out of 80

Training loss: 1.138.. Validation loss: 1.129..

AUC: 0.55 PR AUC: 0.19

Epoch [4] out of 80

Training loss: 1.135.. Validation loss: 1.111..

AUC: 0.55 PR AUC: 0.20

Epoch [5] out of 80

Training loss: 1.126.. Validation loss: 1.181..

AUC: 0.53 PR AUC: 0.21

Epoch [6] out of 80

Training loss: 1.123.. Validation loss: 1.150..

AUC: 0.54 PR AUC: 0.22

Epoch [7] out of 80

Training loss: 1.112.. Validation loss: 1.066..

AUC: 0.57 PR AUC: 0.24

Epoch [8] out of 80

Training loss: 1.106.. Validation loss: 0.992..

AUC: 0.57 PR AUC: 0.25

Epoch [9] out of 80

Training loss: 1.102.. Validation loss: 0.951..

AUC: 0.57 PR AUC: 0.25

Epoch [10] out of 80

Training loss: 1.092.. Validation loss: 0.938..

AUC: 0.64 PR AUC: 0.27

Epoch [11] out of 80

Training loss: 1.086.. Validation loss: 0.937..

AUC: 0.67 PR AUC: 0.28

Epoch [12] out of 80

Training loss: 1.079.. Validation loss: 0.942..

AUC: 0.67 PR AUC: 0.29

Epoch [13] out of 80

Training loss: 1.076.. Validation loss: 0.939..

AUC: 0.65 PR AUC: 0.29

Epoch [14] out of 80

Training loss: 1.070.. Validation loss: 0.961..

AUC: 0.65 PR AUC: 0.29

Epoch [15] out of 80

Training loss: 1.068.. Validation loss: 0.977..

AUC: 0.64 PR AUC: 0.29

Epoch [16] out of 80

Training loss: 1.064.. Validation loss: 0.987..

AUC: 0.64 PR AUC: 0.29

Epoch [17] out of 80

Training loss: 1.061.. Validation loss: 0.997..

AUC: 0.61 PR AUC: 0.29

Epoch [18] out of 80

Training loss: 1.059.. Validation loss: 1.018..

AUC: 0.62 PR AUC: 0.30

Epoch [19] out of 80

Training loss: 1.057.. Validation loss: 1.020..

AUC: 0.59 PR AUC: 0.29

Epoch [20] out of 80

Training loss: 1.054.. Validation loss: 1.031..

AUC: 0.59 PR AUC: 0.29

Epoch [21] out of 80

Training loss: 1.054.. Validation loss: 1.038..

AUC: 0.56 PR AUC: 0.28

Epoch [22] out of 80

Training loss: 1.051.. Validation loss: 1.048..

AUC: 0.56 PR AUC: 0.28

Epoch [23] out of 80

Training loss: 1.050.. Validation loss: 1.055..

AUC: 0.56 PR AUC: 0.28

Epoch [24] out of 80

Training loss: 1.048.. Validation loss: 1.053..

AUC: 0.55 PR AUC: 0.28

Epoch [25] out of 80

Training loss: 1.047.. Validation loss: 1.054..

AUC: 0.54 PR AUC: 0.28

Epoch [26] out of 80

Training loss: 1.044.. Validation loss: 1.064..

AUC: 0.54 PR AUC: 0.28

Epoch [27] out of 80

Training loss: 1.045.. Validation loss: 1.061..

AUC: 0.52 PR AUC: 0.28

Epoch [28] out of 80

Training loss: 1.042.. Validation loss: 1.065..

AUC: 0.51 PR AUC: 0.28

Epoch [29] out of 80

Training loss: 1.041.. Validation loss: 1.073..

AUC: 0.54 PR AUC: 0.29

Epoch [30] out of 80

Training loss: 1.041.. Validation loss: 1.071..

AUC: 0.52 PR AUC: 0.28

Epoch [31] out of 80

Training loss: 1.038.. Validation loss: 1.074..

AUC: 0.53 PR AUC: 0.29

Epoch [32] out of 80

Training loss: 1.037.. Validation loss: 1.075..

AUC: 0.49 PR AUC: 0.27

Epoch [33] out of 80

Training loss: 1.036.. Validation loss: 1.079..

AUC: 0.51 PR AUC: 0.28

Epoch [34] out of 80

Training loss: 1.035.. Validation loss: 1.073..

AUC: 0.50 PR AUC: 0.27

Epoch [35] out of 80

Training loss: 1.033.. Validation loss: 1.082..

AUC: 0.48 PR AUC: 0.26

Epoch [36] out of 80

Training loss: 1.032.. Validation loss: 1.082..

AUC: 0.49 PR AUC: 0.27

Epoch [37] out of 80

Training loss: 1.032.. Validation loss: 1.082..

AUC: 0.47 PR AUC: 0.26

Epoch [38] out of 80

Training loss: 1.030.. Validation loss: 1.080..

AUC: 0.50 PR AUC: 0.27

Epoch [39] out of 80

Training loss: 1.030.. Validation loss: 1.081..

AUC: 0.47 PR AUC: 0.26

Epoch [40] out of 80

Training loss: 1.028.. Validation loss: 1.083..

AUC: 0.46 PR AUC: 0.25

Epoch [41] out of 80

Training loss: 1.027.. Validation loss: 1.081..

AUC: 0.49 PR AUC: 0.27

Epoch [42] out of 80

Training loss: 1.027.. Validation loss: 1.076..

AUC: 0.47 PR AUC: 0.26

Epoch [43] out of 80

Training loss: 1.026.. Validation loss: 1.074..

AUC: 0.50 PR AUC: 0.27

Epoch [44] out of 80

Training loss: 1.026.. Validation loss: 1.078..

AUC: 0.47 PR AUC: 0.26

Epoch [45] out of 80

Training loss: 1.024.. Validation loss: 1.073..

AUC: 0.47 PR AUC: 0.26

Epoch [46] out of 80

Training loss: 1.024.. Validation loss: 1.077..

AUC: 0.44 PR AUC: 0.24

Epoch [47] out of 80

Training loss: 1.023.. Validation loss: 1.067..

AUC: 0.50 PR AUC: 0.27

Epoch [48] out of 80

Training loss: 1.021.. Validation loss: 1.069..

AUC: 0.48 PR AUC: 0.27

Epoch [49] out of 80

Training loss: 1.020.. Validation loss: 1.066..

AUC: 0.51 PR AUC: 0.27

Epoch [50] out of 80

Training loss: 1.020.. Validation loss: 1.061..

AUC: 0.49 PR AUC: 0.27

Epoch [51] out of 80

Training loss: 1.020.. Validation loss: 1.060..

AUC: 0.50 PR AUC: 0.27

Epoch [52] out of 80

Training loss: 1.019.. Validation loss: 1.062..

AUC: 0.48 PR AUC: 0.26

Epoch [53] out of 80

Training loss: 1.019.. Validation loss: 1.059..

AUC: 0.53 PR AUC: 0.29

Epoch [54] out of 80

Training loss: 1.019.. Validation loss: 1.058..

AUC: 0.52 PR AUC: 0.28

Epoch [55] out of 80

Training loss: 1.017.. Validation loss: 1.057..

AUC: 0.52 PR AUC: 0.28

Epoch [56] out of 80

Training loss: 1.016.. Validation loss: 1.062..

AUC: 0.49 PR AUC: 0.27

Epoch [57] out of 80

Training loss: 1.017.. Validation loss: 1.050..

AUC: 0.53 PR AUC: 0.29

Epoch [58] out of 80

Training loss: 1.017.. Validation loss: 1.051..

AUC: 0.53 PR AUC: 0.29

Epoch [59] out of 80

Training loss: 1.015.. Validation loss: 1.057..

AUC: 0.50 PR AUC: 0.28

Epoch [60] out of 80

Training loss: 1.015.. Validation loss: 1.058..

AUC: 0.52 PR AUC: 0.29

Epoch [61] out of 80

Training loss: 1.014.. Validation loss: 1.049..

AUC: 0.53 PR AUC: 0.29

Epoch [62] out of 80

Training loss: 1.013.. Validation loss: 1.054..

AUC: 0.50 PR AUC: 0.28

Epoch [63] out of 80

Training loss: 1.013.. Validation loss: 1.058..

AUC: 0.49 PR AUC: 0.27

Epoch [64] out of 80

Training loss: 1.014.. Validation loss: 1.051..

AUC: 0.50 PR AUC: 0.28

Epoch [65] out of 80

Training loss: 1.013.. Validation loss: 1.054..

AUC: 0.49 PR AUC: 0.27

Epoch [66] out of 80

Training loss: 1.011.. Validation loss: 1.057..

AUC: 0.54 PR AUC: 0.29

Epoch [67] out of 80

Training loss: 1.012.. Validation loss: 1.050..

AUC: 0.53 PR AUC: 0.29

Epoch [68] out of 80

Training loss: 1.010.. Validation loss: 1.057..

AUC: 0.49 PR AUC: 0.27

Epoch [69] out of 80

Training loss: 1.011.. Validation loss: 1.053..

AUC: 0.54 PR AUC: 0.30

Epoch [70] out of 80

Training loss: 1.010.. Validation loss: 1.055..

AUC: 0.55 PR AUC: 0.31

Epoch [71] out of 80

Training loss: 1.011.. Validation loss: 1.053..

AUC: 0.55 PR AUC: 0.30

Epoch [72] out of 80

Training loss: 1.009.. Validation loss: 1.056..

AUC: 0.57 PR AUC: 0.31

Epoch [73] out of 80

Training loss: 1.010.. Validation loss: 1.052..

AUC: 0.56 PR AUC: 0.31

Epoch [74] out of 80

Training loss: 1.010.. Validation loss: 1.053..

AUC: 0.54 PR AUC: 0.30

Epoch [75] out of 80

Training loss: 1.010.. Validation loss: 1.053..

AUC: 0.56 PR AUC: 0.31

Epoch [76] out of 80

Training loss: 1.008.. Validation loss: 1.054..

AUC: 0.54 PR AUC: 0.30

Epoch [77] out of 80

Training loss: 1.009.. Validation loss: 1.054..

AUC: 0.56 PR AUC: 0.31

Epoch [78] out of 80

Training loss: 1.007.. Validation loss: 1.054..

AUC: 0.57 PR AUC: 0.32

Epoch [79] out of 80

Training loss: 1.008.. Validation loss: 1.057..

AUC: 0.56 PR AUC: 0.32

Epoch [80] out of 80

Training loss: 1.007.. Validation loss: 1.061..

AUC: 0.56 PR AUC: 0.32

Finished Training

starttime = 2021-01-07 19:51:53.350856

endtime = 2021-01-08 02:12:24.947259

Last model

Area Under ROC Curve: 0.35

Area Under PR Curve(AP): 0.57

Brier score : 0.323

Accuracy for Classifier : 0.50

Cut off: 0.7486

[[1986 13]

[2383 394]]

Best model

Area Under ROC Curve: 0.54

Area Under PR Curve(AP): 0.70

Brier score : 0.255

Accuracy for Classifier : 0.57

Cut off: 0.515

[[1971 28]

[2045 732]]

hypercount:

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()

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Epoch [1] out of 80

Training loss: 1.090.. Validation loss: 1.006..

AUC: 0.81 PR AUC: 0.31

Epoch [2] out of 80

Training loss: 1.038.. Validation loss: 0.900..

AUC: 0.84 PR AUC: 0.35

Epoch [3] out of 80

Training loss: 1.026.. Validation loss: 0.949..

AUC: 0.84 PR AUC: 0.35

Epoch [4] out of 80

Training loss: 1.017.. Validation loss: 1.082..

AUC: 0.82 PR AUC: 0.35

Epoch [5] out of 80

Training loss: 1.002.. Validation loss: 1.037..

AUC: 0.80 PR AUC: 0.36

Epoch [6] out of 80

Training loss: 0.995.. Validation loss: 0.991..

AUC: 0.78 PR AUC: 0.35

Epoch [7] out of 80

Training loss: 0.989.. Validation loss: 1.056..

AUC: 0.78 PR AUC: 0.36

Epoch [8] out of 80

Training loss: 0.982.. Validation loss: 1.104..

AUC: 0.81 PR AUC: 0.37

Epoch [9] out of 80

Training loss: 0.975.. Validation loss: 1.174..

AUC: 0.83 PR AUC: 0.38

Epoch [10] out of 80

Training loss: 0.969.. Validation loss: 1.174..

AUC: 0.85 PR AUC: 0.39

Epoch [11] out of 80

Training loss: 0.968.. Validation loss: 1.156..

AUC: 0.87 PR AUC: 0.39

Epoch [12] out of 80

Training loss: 0.961.. Validation loss: 1.153..

AUC: 0.87 PR AUC: 0.39

Epoch [13] out of 80

Training loss: 0.957.. Validation loss: 1.143..

AUC: 0.88 PR AUC: 0.39

Epoch [14] out of 80

Training loss: 0.955.. Validation loss: 1.141..

AUC: 0.88 PR AUC: 0.39

Epoch [15] out of 80

Training loss: 0.952.. Validation loss: 1.090..

AUC: 0.88 PR AUC: 0.38

Epoch [16] out of 80

Training loss: 0.949.. Validation loss: 1.079..

AUC: 0.88 PR AUC: 0.38

Epoch [17] out of 80

Training loss: 0.947.. Validation loss: 1.053..

AUC: 0.88 PR AUC: 0.37

Epoch [18] out of 80

Training loss: 0.945.. Validation loss: 1.055..

AUC: 0.87 PR AUC: 0.39

Epoch [19] out of 80

Training loss: 0.943.. Validation loss: 1.058..

AUC: 0.88 PR AUC: 0.38

Epoch [20] out of 80

Training loss: 0.941.. Validation loss: 1.088..

AUC: 0.88 PR AUC: 0.39

Epoch [21] out of 80

Training loss: 0.939.. Validation loss: 1.086..

AUC: 0.87 PR AUC: 0.40

Epoch [22] out of 80

Training loss: 0.938.. Validation loss: 1.092..

AUC: 0.88 PR AUC: 0.40

Epoch [23] out of 80

Training loss: 0.937.. Validation loss: 1.100..

AUC: 0.88 PR AUC: 0.40

Epoch [24] out of 80

Training loss: 0.936.. Validation loss: 1.124..

AUC: 0.88 PR AUC: 0.41

Epoch [25] out of 80

Training loss: 0.935.. Validation loss: 1.120..

AUC: 0.88 PR AUC: 0.41

Epoch [26] out of 80

Training loss: 0.934.. Validation loss: 1.151..

AUC: 0.88 PR AUC: 0.41

Epoch [27] out of 80

Training loss: 0.934.. Validation loss: 1.181..

AUC: 0.89 PR AUC: 0.41

Epoch [28] out of 80

Training loss: 0.933.. Validation loss: 1.219..

AUC: 0.89 PR AUC: 0.41

Epoch [29] out of 80

Training loss: 0.934.. Validation loss: 1.221..

AUC: 0.89 PR AUC: 0.42

Epoch [30] out of 80

Training loss: 0.932.. Validation loss: 1.277..

AUC: 0.89 PR AUC: 0.42

Epoch [31] out of 80

Training loss: 0.941.. Validation loss: 1.425..

AUC: 0.88 PR AUC: 0.45

Epoch [32] out of 80

Training loss: 0.933.. Validation loss: 1.310..

AUC: 0.89 PR AUC: 0.43

Epoch [33] out of 80

Training loss: 0.931.. Validation loss: 1.376..

AUC: 0.89 PR AUC: 0.42

Epoch [34] out of 80

Training loss: 0.946.. Validation loss: 1.297..

AUC: 0.89 PR AUC: 0.45

Epoch [35] out of 80

Training loss: 0.940.. Validation loss: 1.268..

AUC: 0.90 PR AUC: 0.43

Epoch [36] out of 80

Training loss: 0.936.. Validation loss: 1.420..

AUC: 0.90 PR AUC: 0.42

Epoch [37] out of 80

Training loss: 0.933.. Validation loss: 1.198..

AUC: 0.89 PR AUC: 0.46

Epoch [38] out of 80

Training loss: 0.933.. Validation loss: 1.326..

AUC: 0.89 PR AUC: 0.44

Epoch [39] out of 80

Training loss: 0.952.. Validation loss: 1.824..

AUC: 0.85 PR AUC: 0.43

Epoch [40] out of 80

Training loss: 0.947.. Validation loss: 1.232..

AUC: 0.89 PR AUC: 0.45

Epoch [41] out of 80

Training loss: 0.941.. Validation loss: 1.156..

AUC: 0.90 PR AUC: 0.44

Epoch [42] out of 80

Training loss: 0.936.. Validation loss: 1.282..

AUC: 0.90 PR AUC: 0.44

Epoch [43] out of 80

Training loss: 0.934.. Validation loss: 1.181..

AUC: 0.90 PR AUC: 0.43

Epoch [44] out of 80

Training loss: 0.950.. Validation loss: 1.889..

AUC: 0.86 PR AUC: 0.41

Epoch [45] out of 80

Training loss: 1.017.. Validation loss: 1.964..

AUC: 0.65 PR AUC: 0.33

Epoch [46] out of 80

Training loss: 1.001.. Validation loss: 2.201..

AUC: 0.66 PR AUC: 0.30

Epoch [47] out of 80

Training loss: 1.004.. Validation loss: 2.054..

AUC: 0.78 PR AUC: 0.35

Epoch [48] out of 80

Training loss: 1.004.. Validation loss: 2.214..

AUC: 0.77 PR AUC: 0.34

Epoch [49] out of 80

Training loss: 1.005.. Validation loss: 2.307..

AUC: 0.69 PR AUC: 0.25

Epoch [50] out of 80

Training loss: 0.999.. Validation loss: 2.123..

AUC: 0.78 PR AUC: 0.34

Epoch [51] out of 80

Training loss: 0.996.. Validation loss: 2.345..

AUC: 0.71 PR AUC: 0.30

Epoch [52] out of 80

Training loss: 0.994.. Validation loss: 2.438..

AUC: 0.66 PR AUC: 0.24

Epoch [53] out of 80

Training loss: 0.992.. Validation loss: 2.459..

AUC: 0.67 PR AUC: 0.26

Epoch [54] out of 80

Training loss: 0.994.. Validation loss: 2.218..

AUC: 0.58 PR AUC: 0.17

Epoch [55] out of 80

Training loss: 0.986.. Validation loss: 2.146..

AUC: 0.70 PR AUC: 0.29

Epoch [56] out of 80

Training loss: 0.992.. Validation loss: 1.928..

AUC: 0.76 PR AUC: 0.35

Epoch [57] out of 80

Training loss: 0.982.. Validation loss: 1.960..

AUC: 0.78 PR AUC: 0.35

Epoch [58] out of 80

Training loss: 0.977.. Validation loss: 1.942..

AUC: 0.80 PR AUC: 0.36

Epoch [59] out of 80

Training loss: 0.973.. Validation loss: 1.854..

AUC: 0.81 PR AUC: 0.37

Epoch [60] out of 80

Training loss: 0.969.. Validation loss: 1.901..

AUC: 0.80 PR AUC: 0.36

Epoch [61] out of 80

Training loss: 0.971.. Validation loss: 2.104..

AUC: 0.74 PR AUC: 0.34

Epoch [62] out of 80

Training loss: 0.965.. Validation loss: 1.997..

AUC: 0.78 PR AUC: 0.36

Epoch [63] out of 80

Training loss: 0.963.. Validation loss: 1.981..

AUC: 0.74 PR AUC: 0.34

Epoch [64] out of 80

Training loss: 0.967.. Validation loss: 2.130..

AUC: 0.77 PR AUC: 0.37

Epoch [65] out of 80

Training loss: 0.963.. Validation loss: 1.936..

AUC: 0.79 PR AUC: 0.37

Epoch [66] out of 80

Training loss: 0.960.. Validation loss: 1.902..

AUC: 0.75 PR AUC: 0.34

Epoch [67] out of 80

Training loss: 0.958.. Validation loss: 1.970..

AUC: 0.76 PR AUC: 0.36

Epoch [68] out of 80

Training loss: 0.967.. Validation loss: 1.936..

AUC: 0.80 PR AUC: 0.38

Epoch [69] out of 80

Training loss: 0.957.. Validation loss: 1.933..

AUC: 0.76 PR AUC: 0.34

Epoch [70] out of 80

Training loss: 0.953.. Validation loss: 1.939..

AUC: 0.76 PR AUC: 0.37

Epoch [71] out of 80

Training loss: 0.953.. Validation loss: 1.989..

AUC: 0.78 PR AUC: 0.38

Epoch [72] out of 80

Training loss: 0.956.. Validation loss: 2.019..

AUC: 0.76 PR AUC: 0.37

Epoch [73] out of 80

Training loss: 0.948.. Validation loss: 2.081..

AUC: 0.76 PR AUC: 0.37

Epoch [74] out of 80

Training loss: 0.956.. Validation loss: 2.056..

AUC: 0.75 PR AUC: 0.36

Epoch [75] out of 80

Training loss: 0.959.. Validation loss: 2.110..

AUC: 0.74 PR AUC: 0.36

Epoch [76] out of 80

Training loss: 0.958.. Validation loss: 2.048..

AUC: 0.76 PR AUC: 0.37

Epoch [77] out of 80

Training loss: 0.954.. Validation loss: 2.131..

AUC: 0.75 PR AUC: 0.34

Epoch [78] out of 80

Training loss: 0.950.. Validation loss: 2.129..

AUC: 0.75 PR AUC: 0.34

Epoch [79] out of 80

Training loss: 0.948.. Validation loss: 2.290..

AUC: 0.76 PR AUC: 0.33

Epoch [80] out of 80

Training loss: 0.947.. Validation loss: 2.296..

AUC: 0.72 PR AUC: 0.31

Finished Training

starttime = 2021-01-08 02:12:26.349958

endtime = 2021-01-08 06:24:09.026518

Last model

Area Under ROC Curve: 0.49

Area Under PR Curve(AP): 0.69

Brier score : 0.364

Accuracy for Classifier : 0.58

Cut off: 0.9331

[[1936 63]

[1947 830]]

Best model

Area Under ROC Curve: 0.72

Area Under PR Curve(AP): 0.83

Brier score : 0.267

Accuracy for Classifier : 0.72

Cut off: 0.8398

[[1892 107]

[1240 1537]]

hypercount:

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: 1.168.. Validation loss: 1.110..

AUC: 0.57 PR AUC: 0.25

Epoch [2] out of 80

Training loss: 1.106.. Validation loss: 1.329..

AUC: 0.55 PR AUC: 0.23

Epoch [3] out of 80

Training loss: 1.078.. Validation loss: 1.442..

AUC: 0.54 PR AUC: 0.23

Epoch [4] out of 80

Training loss: 1.063.. Validation loss: 1.512..

AUC: 0.54 PR AUC: 0.23

Epoch [5] out of 80

Training loss: 1.054.. Validation loss: 1.538..

AUC: 0.57 PR AUC: 0.24

Epoch [6] out of 80

Training loss: 1.047.. Validation loss: 1.549..

AUC: 0.60 PR AUC: 0.25

Epoch [7] out of 80

Training loss: 1.042.. Validation loss: 1.556..

AUC: 0.63 PR AUC: 0.27

Epoch [8] out of 80

Training loss: 1.037.. Validation loss: 1.557..

AUC: 0.66 PR AUC: 0.28

Epoch [9] out of 80

Training loss: 1.032.. Validation loss: 1.555..

AUC: 0.67 PR AUC: 0.29

Epoch [10] out of 80

Training loss: 1.028.. Validation loss: 1.556..

AUC: 0.69 PR AUC: 0.30

Epoch [11] out of 80

Training loss: 1.025.. Validation loss: 1.567..

AUC: 0.70 PR AUC: 0.31

Epoch [12] out of 80

Training loss: 1.021.. Validation loss: 1.579..

AUC: 0.72 PR AUC: 0.32

Epoch [13] out of 80

Training loss: 1.017.. Validation loss: 1.618..

AUC: 0.72 PR AUC: 0.33

Epoch [14] out of 80

Training loss: 1.013.. Validation loss: 1.669..

AUC: 0.72 PR AUC: 0.34

Epoch [15] out of 80

Training loss: 1.009.. Validation loss: 1.726..

AUC: 0.72 PR AUC: 0.34

Epoch [16] out of 80

Training loss: 1.005.. Validation loss: 1.782..

AUC: 0.72 PR AUC: 0.34

Epoch [17] out of 80

Training loss: 1.001.. Validation loss: 1.837..

AUC: 0.72 PR AUC: 0.35

Epoch [18] out of 80

Training loss: 0.998.. Validation loss: 1.881..

AUC: 0.72 PR AUC: 0.35

Epoch [19] out of 80

Training loss: 0.995.. Validation loss: 1.914..

AUC: 0.72 PR AUC: 0.35

Epoch [20] out of 80

Training loss: 0.993.. Validation loss: 1.942..

AUC: 0.72 PR AUC: 0.36

Epoch [21] out of 80

Training loss: 0.990.. Validation loss: 1.966..

AUC: 0.73 PR AUC: 0.36

Epoch [22] out of 80

Training loss: 0.988.. Validation loss: 1.988..

AUC: 0.73 PR AUC: 0.36

Epoch [23] out of 80

Training loss: 0.986.. Validation loss: 2.008..

AUC: 0.73 PR AUC: 0.36

Epoch [24] out of 80

Training loss: 0.984.. Validation loss: 2.025..

AUC: 0.73 PR AUC: 0.36

Epoch [25] out of 80

Training loss: 0.983.. Validation loss: 2.042..

AUC: 0.73 PR AUC: 0.36

Epoch [26] out of 80

Training loss: 0.981.. Validation loss: 2.056..

AUC: 0.73 PR AUC: 0.36

Epoch [27] out of 80

Training loss: 0.979.. Validation loss: 2.068..

AUC: 0.73 PR AUC: 0.37

Epoch [28] out of 80

Training loss: 0.977.. Validation loss: 2.080..

AUC: 0.73 PR AUC: 0.37

Epoch [29] out of 80

Training loss: 0.976.. Validation loss: 2.095..

AUC: 0.73 PR AUC: 0.37

Epoch [30] out of 80

Training loss: 0.974.. Validation loss: 2.105..

AUC: 0.73 PR AUC: 0.37

Epoch [31] out of 80

Training loss: 0.973.. Validation loss: 2.119..

AUC: 0.73 PR AUC: 0.38

Epoch [32] out of 80

Training loss: 0.971.. Validation loss: 2.128..

AUC: 0.73 PR AUC: 0.38

Epoch [33] out of 80

Training loss: 0.970.. Validation loss: 2.143..

AUC: 0.74 PR AUC: 0.38

Epoch [34] out of 80

Training loss: 0.969.. Validation loss: 2.157..

AUC: 0.74 PR AUC: 0.38

Epoch [35] out of 80

Training loss: 0.967.. Validation loss: 2.170..

AUC: 0.74 PR AUC: 0.38

Epoch [36] out of 80

Training loss: 0.966.. Validation loss: 2.179..

AUC: 0.73 PR AUC: 0.38

Epoch [37] out of 80

Training loss: 0.965.. Validation loss: 2.189..

AUC: 0.73 PR AUC: 0.39

Epoch [38] out of 80

Training loss: 0.964.. Validation loss: 2.198..

AUC: 0.73 PR AUC: 0.39

Epoch [39] out of 80

Training loss: 0.963.. Validation loss: 2.208..

AUC: 0.73 PR AUC: 0.39

Epoch [40] out of 80

Training loss: 0.962.. Validation loss: 2.215..

AUC: 0.73 PR AUC: 0.39

Epoch [41] out of 80

Training loss: 0.961.. Validation loss: 2.222..

AUC: 0.73 PR AUC: 0.39

Epoch [42] out of 80

Training loss: 0.960.. Validation loss: 2.228..

AUC: 0.73 PR AUC: 0.39

Epoch [43] out of 80

Training loss: 0.959.. Validation loss: 2.229..

AUC: 0.73 PR AUC: 0.39

Epoch [44] out of 80

Training loss: 0.958.. Validation loss: 2.236..

AUC: 0.73 PR AUC: 0.39

Epoch [45] out of 80

Training loss: 0.957.. Validation loss: 2.237..

AUC: 0.73 PR AUC: 0.39

Epoch [46] out of 80

Training loss: 0.957.. Validation loss: 2.238..

AUC: 0.72 PR AUC: 0.39

Epoch [47] out of 80

Training loss: 0.956.. Validation loss: 2.236..

AUC: 0.72 PR AUC: 0.39

Epoch [48] out of 80

Training loss: 0.955.. Validation loss: 2.234..

AUC: 0.72 PR AUC: 0.39

Epoch [49] out of 80

Training loss: 0.955.. Validation loss: 2.231..

AUC: 0.72 PR AUC: 0.39

Epoch [50] out of 80

Training loss: 0.954.. Validation loss: 2.227..

AUC: 0.72 PR AUC: 0.39

Epoch [51] out of 80

Training loss: 0.953.. Validation loss: 2.222..

AUC: 0.72 PR AUC: 0.40

Epoch [52] out of 80

Training loss: 0.953.. Validation loss: 2.217..

AUC: 0.72 PR AUC: 0.40

Epoch [53] out of 80

Training loss: 0.952.. Validation loss: 2.211..

AUC: 0.72 PR AUC: 0.40

Epoch [54] out of 80

Training loss: 0.951.. Validation loss: 2.204..

AUC: 0.73 PR AUC: 0.40

Epoch [55] out of 80

Training loss: 0.951.. Validation loss: 2.198..

AUC: 0.73 PR AUC: 0.40

Epoch [56] out of 80

Training loss: 0.950.. Validation loss: 2.189..

AUC: 0.73 PR AUC: 0.40

Epoch [57] out of 80

Training loss: 0.950.. Validation loss: 2.180..

AUC: 0.73 PR AUC: 0.40

Epoch [58] out of 80

Training loss: 0.949.. Validation loss: 2.170..

AUC: 0.73 PR AUC: 0.41

Epoch [59] out of 80

Training loss: 0.949.. Validation loss: 2.161..

AUC: 0.73 PR AUC: 0.41

Epoch [60] out of 80

Training loss: 0.948.. Validation loss: 2.154..

AUC: 0.73 PR AUC: 0.41

Epoch [61] out of 80

Training loss: 0.948.. Validation loss: 2.148..

AUC: 0.73 PR AUC: 0.41

Epoch [62] out of 80

Training loss: 0.947.. Validation loss: 2.144..

AUC: 0.73 PR AUC: 0.41

Epoch [63] out of 80

Training loss: 0.947.. Validation loss: 2.136..

AUC: 0.73 PR AUC: 0.41

Epoch [64] out of 80

Training loss: 0.946.. Validation loss: 2.128..

AUC: 0.73 PR AUC: 0.41

Epoch [65] out of 80

Training loss: 0.946.. Validation loss: 2.122..

AUC: 0.74 PR AUC: 0.42

Epoch [66] out of 80

Training loss: 0.945.. Validation loss: 2.121..

AUC: 0.73 PR AUC: 0.42

Epoch [67] out of 80

Training loss: 0.945.. Validation loss: 2.112..

AUC: 0.73 PR AUC: 0.42

Epoch [68] out of 80

Training loss: 0.944.. Validation loss: 2.104..

AUC: 0.73 PR AUC: 0.42

Epoch [69] out of 80

Training loss: 0.944.. Validation loss: 2.094..

AUC: 0.73 PR AUC: 0.42

Epoch [70] out of 80

Training loss: 0.944.. Validation loss: 2.083..

AUC: 0.74 PR AUC: 0.42

Epoch [71] out of 80

Training loss: 0.943.. Validation loss: 2.070..

AUC: 0.74 PR AUC: 0.42

Epoch [72] out of 80

Training loss: 0.943.. Validation loss: 2.060..

AUC: 0.74 PR AUC: 0.42

Epoch [73] out of 80

Training loss: 0.943.. Validation loss: 2.049..

AUC: 0.74 PR AUC: 0.43

Epoch [74] out of 80

Training loss: 0.942.. Validation loss: 2.035..

AUC: 0.74 PR AUC: 0.43

Epoch [75] out of 80

Training loss: 0.942.. Validation loss: 2.024..

AUC: 0.74 PR AUC: 0.43

Epoch [76] out of 80

Training loss: 0.941.. Validation loss: 2.019..

AUC: 0.75 PR AUC: 0.43

Epoch [77] out of 80

Training loss: 0.941.. Validation loss: 2.008..

AUC: 0.75 PR AUC: 0.43

Epoch [78] out of 80

Training loss: 0.941.. Validation loss: 1.996..

AUC: 0.75 PR AUC: 0.43

Epoch [79] out of 80

Training loss: 0.940.. Validation loss: 1.982..

AUC: 0.75 PR AUC: 0.43

Epoch [80] out of 80

Training loss: 0.940.. Validation loss: 1.973..

AUC: 0.75 PR AUC: 0.43

Finished Training

starttime = 2021-01-08 06:24:10.135023

endtime = 2021-01-08 10:36:00.686933

Last model

Area Under ROC Curve: 0.56

Area Under PR Curve(AP): 0.75

Brier score : 0.363

Accuracy for Classifier : 0.65

Cut off: 0.9044

[[1966 33]

[1654 1123]]

Best model

Area Under ROC Curve: 0.56

Area Under PR Curve(AP): 0.75

Brier score : 0.363

Accuracy for Classifier : 0.65

Cut off: 0.9044

[[1966 33]

[1654 1123]]

hypercount:

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: 1.196.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [2] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [3] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [4] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [5] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [6] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [7] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [8] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [9] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [10] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [11] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [12] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [13] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [14] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [15] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [16] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [17] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [18] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [19] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [20] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [21] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [22] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [23] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [24] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [25] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [26] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [27] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [28] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [29] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [30] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [31] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [32] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [33] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [34] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [35] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [36] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [37] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [38] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [39] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [40] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [41] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [42] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [43] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [44] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [45] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [46] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [47] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [48] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [49] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [50] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [51] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [52] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [53] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [54] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [55] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [56] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [57] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [58] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [59] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [60] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [61] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [62] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [63] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [64] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [65] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [66] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [67] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [68] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [69] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [70] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [71] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [72] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [73] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [74] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [75] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [76] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [77] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [78] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [79] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Epoch [80] out of 80

Training loss: 1.195.. Validation loss: 0.820..

AUC: 0.50 PR AUC: 0.53

Finished Training

starttime = 2021-01-08 10:36:02.054797

endtime = 2021-01-08 16:57:01.499322

Last model

Area Under ROC Curve: 0.50

Area Under PR Curve(AP): 0.79

Brier score : 0.252

Accuracy for Classifier : 0.42

Cut off: 1.4878

[[1999 0]

[2777 0]]

Best model

Area Under ROC Curve: 0.50

Area Under PR Curve(AP): 0.79

Brier score : 0.252

Accuracy for Classifier : 0.42

Cut off: 1.4878

[[1999 0]

[2777 0]]

hypercount:

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()

)

Epoch [1] out of 80

Training loss: 1.191.. Validation loss: 0.789..

AUC: 0.62 PR AUC: 0.30

Epoch [2] out of 80

Training loss: 1.141.. Validation loss: 0.625..

AUC: 0.71 PR AUC: 0.37

Epoch [3] out of 80

Training loss: 1.114.. Validation loss: 0.592..

AUC: 0.69 PR AUC: 0.37

Epoch [4] out of 80

Training loss: 1.102.. Validation loss: 0.581..

AUC: 0.69 PR AUC: 0.37

Epoch [5] out of 80

Training loss: 1.093.. Validation loss: 0.583..

AUC: 0.69 PR AUC: 0.36

Epoch [6] out of 80

Training loss: 1.084.. Validation loss: 0.551..

AUC: 0.75 PR AUC: 0.37

Epoch [7] out of 80

Training loss: 1.076.. Validation loss: 0.546..

AUC: 0.76 PR AUC: 0.37

Epoch [8] out of 80

Training loss: 1.072.. Validation loss: 0.559..

AUC: 0.74 PR AUC: 0.37

Epoch [9] out of 80

Training loss: 1.067.. Validation loss: 0.557..

AUC: 0.75 PR AUC: 0.37

Epoch [10] out of 80

Training loss: 1.062.. Validation loss: 0.531..

AUC: 0.79 PR AUC: 0.39

Epoch [11] out of 80

Training loss: 1.057.. Validation loss: 0.540..

AUC: 0.77 PR AUC: 0.39

Epoch [12] out of 80

Training loss: 1.053.. Validation loss: 0.534..

AUC: 0.77 PR AUC: 0.39

Epoch [13] out of 80

Training loss: 1.046.. Validation loss: 0.501..

AUC: 0.82 PR AUC: 0.41

Epoch [14] out of 80

Training loss: 1.040.. Validation loss: 0.497..

AUC: 0.80 PR AUC: 0.41

Epoch [15] out of 80

Training loss: 1.039.. Validation loss: 0.488..

AUC: 0.83 PR AUC: 0.43

Epoch [16] out of 80

Training loss: 1.034.. Validation loss: 0.489..

AUC: 0.83 PR AUC: 0.43

Epoch [17] out of 80

Training loss: 1.033.. Validation loss: 0.491..

AUC: 0.83 PR AUC: 0.43

Epoch [18] out of 80

Training loss: 1.031.. Validation loss: 0.479..

AUC: 0.85 PR AUC: 0.44

Epoch [19] out of 80

Training loss: 1.036.. Validation loss: 0.505..

AUC: 0.84 PR AUC: 0.43

Epoch [20] out of 80

Training loss: 1.027.. Validation loss: 0.483..

AUC: 0.85 PR AUC: 0.44

Epoch [21] out of 80

Training loss: 1.034.. Validation loss: 0.501..

AUC: 0.84 PR AUC: 0.44

Epoch [22] out of 80

Training loss: 1.025.. Validation loss: 0.488..

AUC: 0.84 PR AUC: 0.44

Epoch [23] out of 80

Training loss: 1.023.. Validation loss: 0.481..

AUC: 0.85 PR AUC: 0.45

Epoch [24] out of 80

Training loss: 1.022.. Validation loss: 0.480..

AUC: 0.86 PR AUC: 0.45

Epoch [25] out of 80

Training loss: 1.019.. Validation loss: 0.469..

AUC: 0.88 PR AUC: 0.45

Epoch [26] out of 80

Training loss: 1.018.. Validation loss: 0.462..

AUC: 0.89 PR AUC: 0.46

Epoch [27] out of 80

Training loss: 1.016.. Validation loss: 0.466..

AUC: 0.89 PR AUC: 0.45

Epoch [28] out of 80

Training loss: 1.014.. Validation loss: 0.462..

AUC: 0.90 PR AUC: 0.45

Epoch [29] out of 80

Training loss: 1.013.. Validation loss: 0.460..

AUC: 0.90 PR AUC: 0.45

Epoch [30] out of 80

Training loss: 1.012.. Validation loss: 0.464..

AUC: 0.91 PR AUC: 0.45

Epoch [31] out of 80

Training loss: 1.010.. Validation loss: 0.461..

AUC: 0.91 PR AUC: 0.45

Epoch [32] out of 80

Training loss: 1.008.. Validation loss: 0.461..

AUC: 0.91 PR AUC: 0.45

Epoch [33] out of 80

Training loss: 1.007.. Validation loss: 0.458..

AUC: 0.91 PR AUC: 0.45

Epoch [34] out of 80

Training loss: 1.005.. Validation loss: 0.458..

AUC: 0.91 PR AUC: 0.45

Epoch [35] out of 80

Training loss: 1.004.. Validation loss: 0.457..

AUC: 0.92 PR AUC: 0.45

Epoch [36] out of 80

Training loss: 1.002.. Validation loss: 0.455..

AUC: 0.92 PR AUC: 0.45

Epoch [37] out of 80

Training loss: 1.003.. Validation loss: 0.460..

AUC: 0.92 PR AUC: 0.45

Epoch [38] out of 80

Training loss: 1.000.. Validation loss: 0.455..

AUC: 0.92 PR AUC: 0.45

Epoch [39] out of 80

Training loss: 0.998.. Validation loss: 0.450..

AUC: 0.92 PR AUC: 0.45

Epoch [40] out of 80

Training loss: 0.997.. Validation loss: 0.447..

AUC: 0.92 PR AUC: 0.46

Epoch [41] out of 80

Training loss: 0.996.. Validation loss: 0.448..

AUC: 0.92 PR AUC: 0.46

Epoch [42] out of 80

Training loss: 0.995.. Validation loss: 0.448..

AUC: 0.93 PR AUC: 0.46

Epoch [43] out of 80

Training loss: 0.994.. Validation loss: 0.442..

AUC: 0.93 PR AUC: 0.47

Epoch [44] out of 80

Training loss: 0.994.. Validation loss: 0.430..

AUC: 0.93 PR AUC: 0.47

Epoch [45] out of 80

Training loss: 0.991.. Validation loss: 0.433..

AUC: 0.93 PR AUC: 0.46

Epoch [46] out of 80

Training loss: 0.989.. Validation loss: 0.433..

AUC: 0.93 PR AUC: 0.46

Epoch [47] out of 80

Training loss: 0.988.. Validation loss: 0.432..

AUC: 0.93 PR AUC: 0.47

Epoch [48] out of 80

Training loss: 0.987.. Validation loss: 0.432..

AUC: 0.93 PR AUC: 0.47

Epoch [49] out of 80

Training loss: 0.986.. Validation loss: 0.430..

AUC: 0.93 PR AUC: 0.47

Epoch [50] out of 80

Training loss: 0.986.. Validation loss: 0.431..

AUC: 0.93 PR AUC: 0.47

Epoch [51] out of 80

Training loss: 0.984.. Validation loss: 0.428..

AUC: 0.93 PR AUC: 0.47

Epoch [52] out of 80

Training loss: 0.983.. Validation loss: 0.425..

AUC: 0.93 PR AUC: 0.48

Epoch [53] out of 80

Training loss: 0.983.. Validation loss: 0.428..

AUC: 0.93 PR AUC: 0.48

Epoch [54] out of 80

Training loss: 0.987.. Validation loss: 0.437..

AUC: 0.93 PR AUC: 0.48

Epoch [55] out of 80

Training loss: 0.983.. Validation loss: 0.434..

AUC: 0.94 PR AUC: 0.48

Epoch [56] out of 80

Training loss: 0.981.. Validation loss: 0.430..

AUC: 0.94 PR AUC: 0.48

Epoch [57] out of 80

Training loss: 0.980.. Validation loss: 0.427..

AUC: 0.94 PR AUC: 0.48

Epoch [58] out of 80

Training loss: 0.984.. Validation loss: 0.437..

AUC: 0.94 PR AUC: 0.49

Epoch [59] out of 80

Training loss: 0.980.. Validation loss: 0.433..

AUC: 0.94 PR AUC: 0.48

Epoch [60] out of 80

Training loss: 0.978.. Validation loss: 0.428..

AUC: 0.94 PR AUC: 0.48

Epoch [61] out of 80

Training loss: 0.977.. Validation loss: 0.427..

AUC: 0.94 PR AUC: 0.48

Epoch [62] out of 80

Training loss: 0.976.. Validation loss: 0.420..

AUC: 0.94 PR AUC: 0.48

Epoch [63] out of 80

Training loss: 0.975.. Validation loss: 0.419..

AUC: 0.94 PR AUC: 0.49

Epoch [64] out of 80

Training loss: 0.975.. Validation loss: 0.421..

AUC: 0.94 PR AUC: 0.49

Epoch [65] out of 80

Training loss: 0.973.. Validation loss: 0.418..

AUC: 0.94 PR AUC: 0.49

Epoch [66] out of 80

Training loss: 0.972.. Validation loss: 0.418..

AUC: 0.94 PR AUC: 0.49

Epoch [67] out of 80

Training loss: 0.972.. Validation loss: 0.419..

AUC: 0.94 PR AUC: 0.49

Epoch [68] out of 80

Training loss: 0.972.. Validation loss: 0.424..

AUC: 0.94 PR AUC: 0.49

Epoch [69] out of 80

Training loss: 0.970.. Validation loss: 0.422..

AUC: 0.94 PR AUC: 0.49

Epoch [70] out of 80

Training loss: 0.970.. Validation loss: 0.429..

AUC: 0.94 PR AUC: 0.49

Epoch [71] out of 80

Training loss: 0.969.. Validation loss: 0.434..

AUC: 0.94 PR AUC: 0.49

Epoch [72] out of 80

Training loss: 0.969.. Validation loss: 0.438..

AUC: 0.94 PR AUC: 0.49

Epoch [73] out of 80

Training loss: 0.967.. Validation loss: 0.441..

AUC: 0.94 PR AUC: 0.50

Epoch [74] out of 80

Training loss: 0.968.. Validation loss: 0.445..

AUC: 0.94 PR AUC: 0.50

Epoch [75] out of 80

Training loss: 0.967.. Validation loss: 0.447..

AUC: 0.94 PR AUC: 0.50

Epoch [76] out of 80

Training loss: 0.966.. Validation loss: 0.454..

AUC: 0.94 PR AUC: 0.50

Epoch [77] out of 80

Training loss: 0.966.. Validation loss: 0.460..

AUC: 0.94 PR AUC: 0.50

Epoch [78] out of 80

Training loss: 0.966.. Validation loss: 0.469..

AUC: 0.94 PR AUC: 0.50

Epoch [79] out of 80

Training loss: 0.965.. Validation loss: 0.481..

AUC: 0.94 PR AUC: 0.50

Epoch [80] out of 80

Training loss: 0.964.. Validation loss: 0.490..

AUC: 0.93 PR AUC: 0.50

Finished Training

starttime = 2021-01-08 17:15:49.453419

endtime = 2021-01-08 23:41:21.461398

Last model

Area Under ROC Curve: 0.76

Area Under PR Curve(AP): 0.85

Brier score : 0.199

Accuracy for Classifier : 0.75

Cut off: 0.4798

[[1924 75]

[1106 1671]]

Best model

Area Under ROC Curve: 0.78

Area Under PR Curve(AP): 0.87

Brier score : 0.210

Accuracy for Classifier : 0.78

Cut off: 0.3233

[[1894 105]

[ 943 1834]]