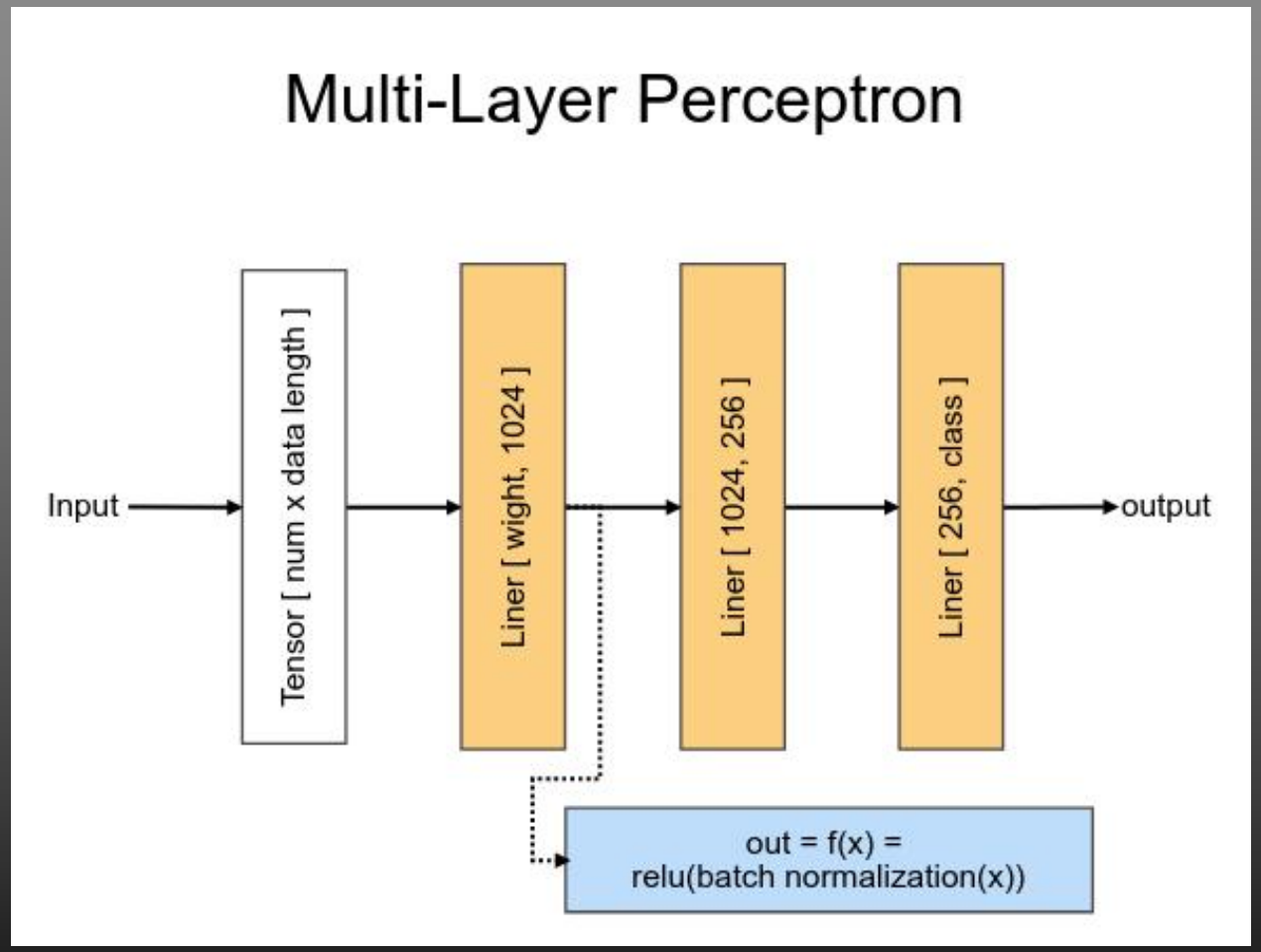
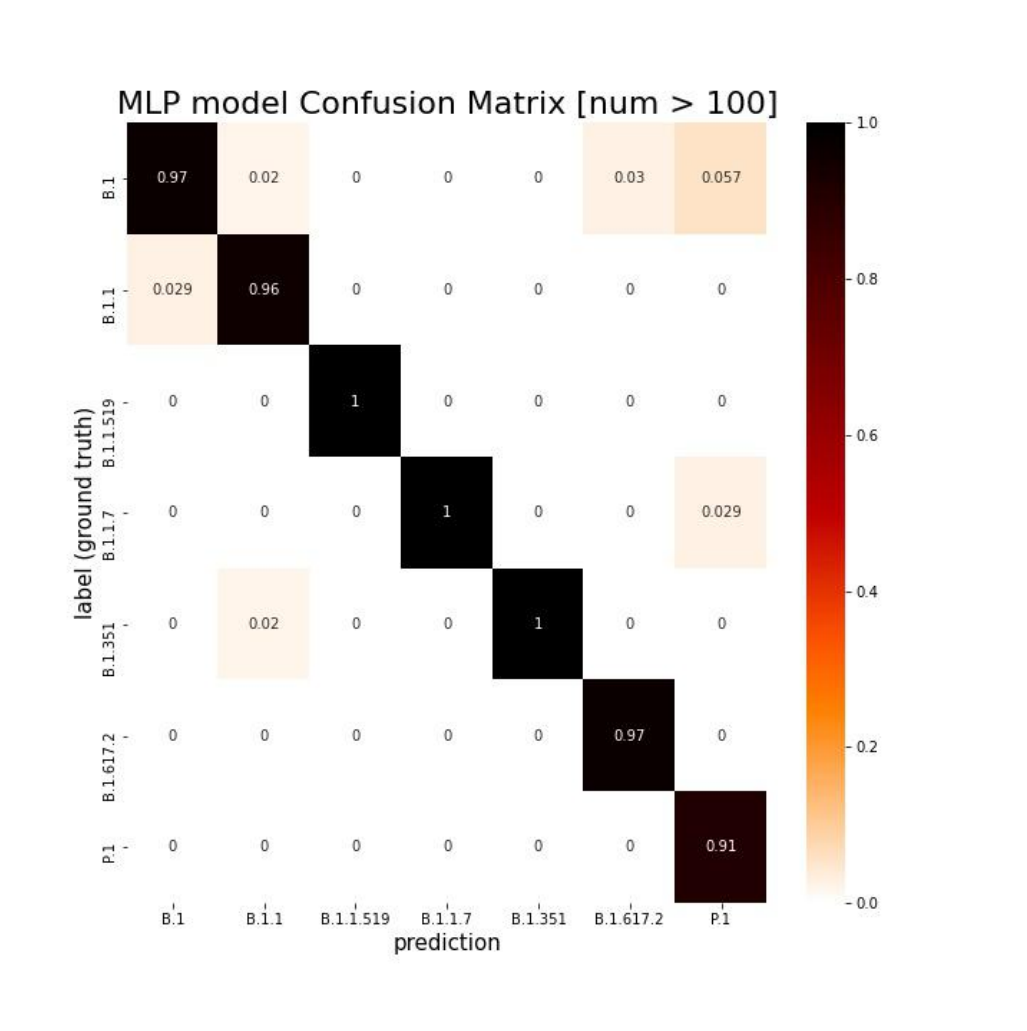
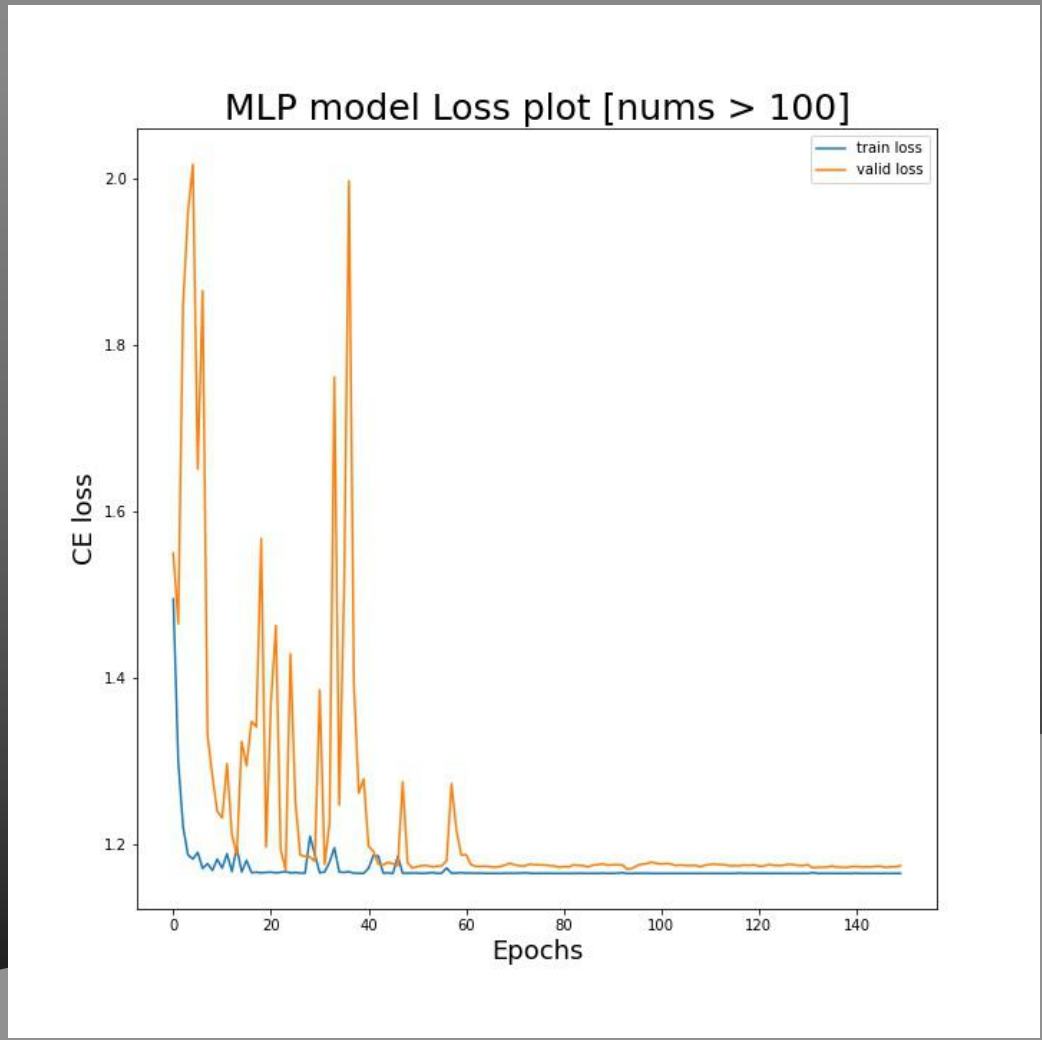
MLP Model

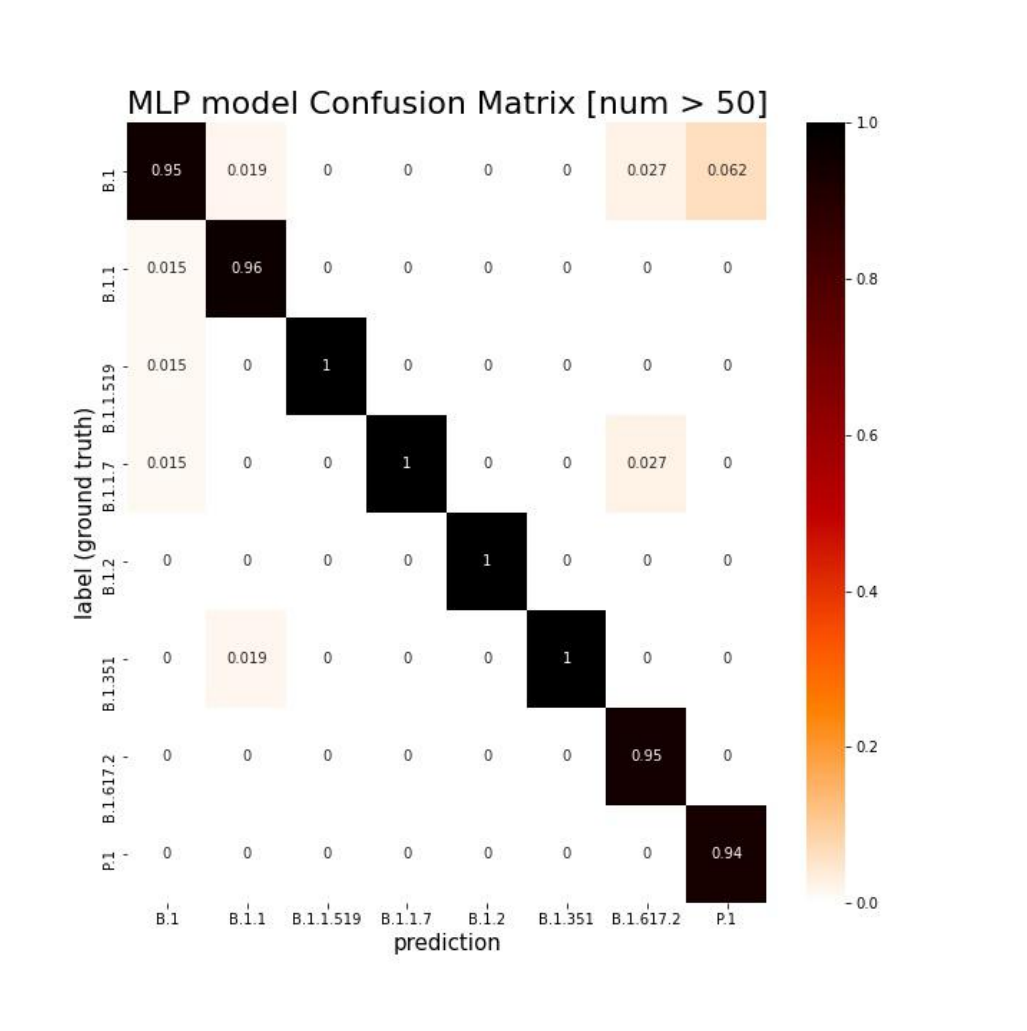

Multi-Layer Perceptron
Input
Tensor [num x data length]
Liner [wight, 1024]
Liner [1024, 256]
Liner [256, class]
output
out = f(x) =
relu(batch normalization(x))

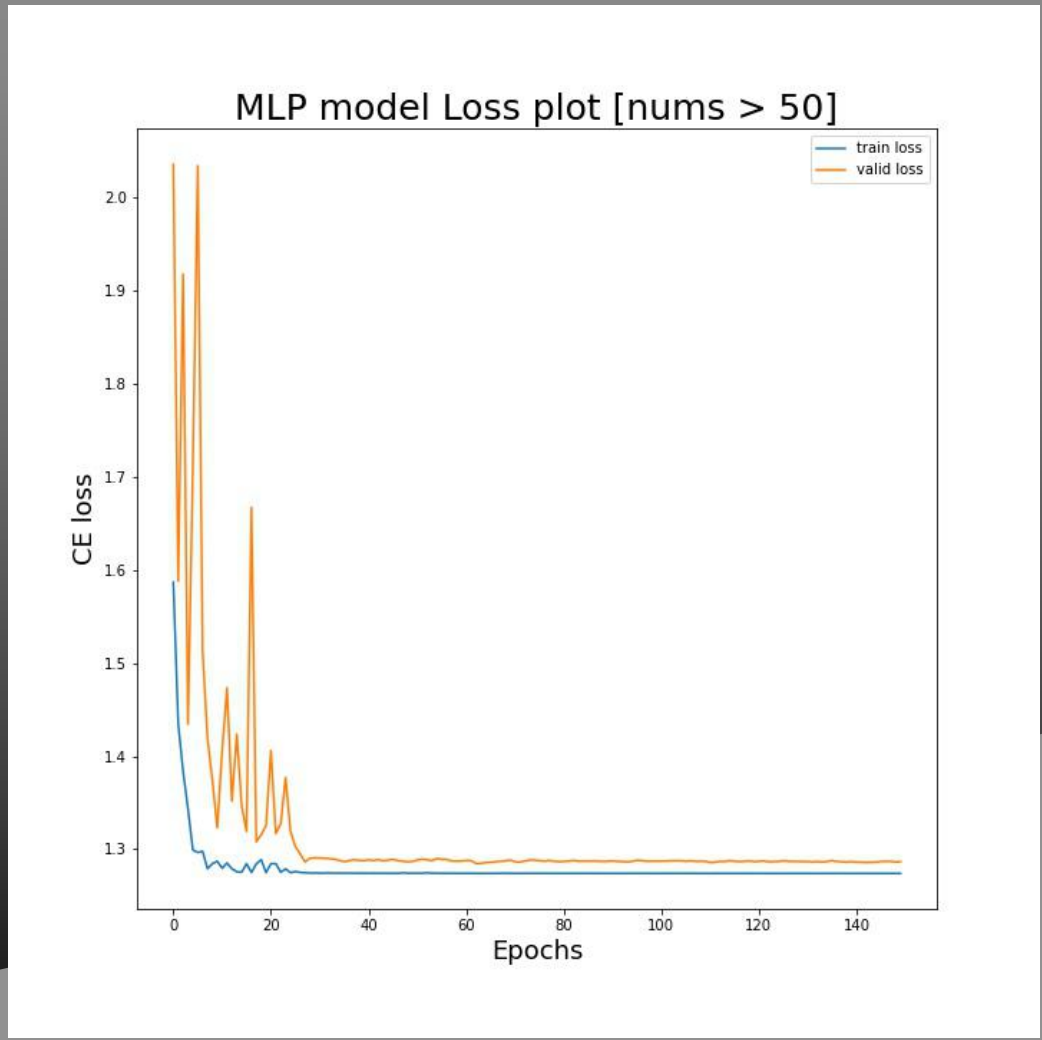
MLP SARS CoV2 - class nums sum >100



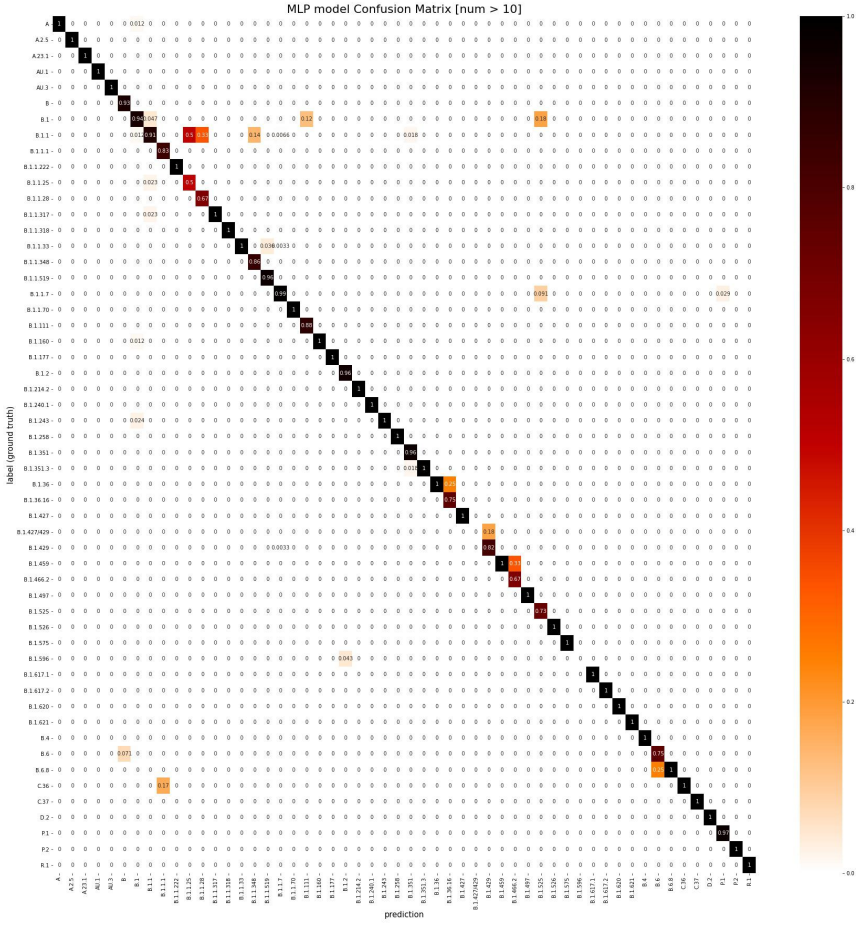


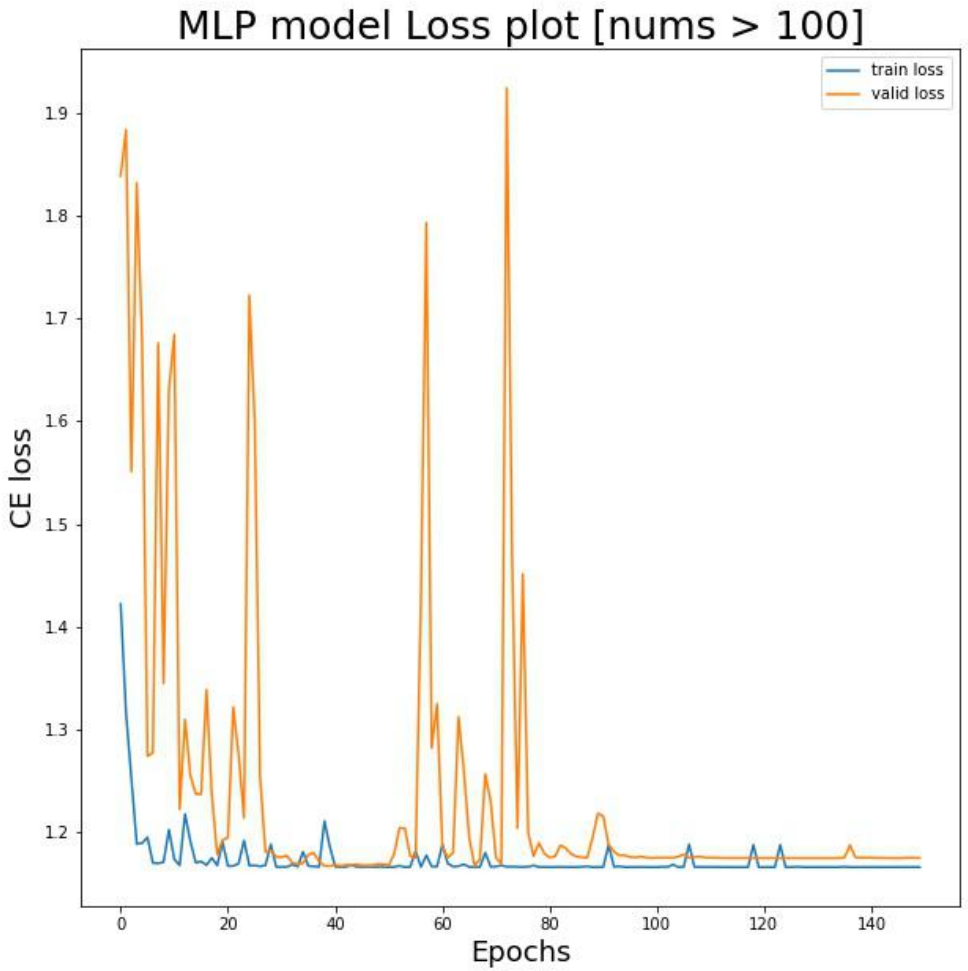
MLP SARS CoV2 - class nums sum >50



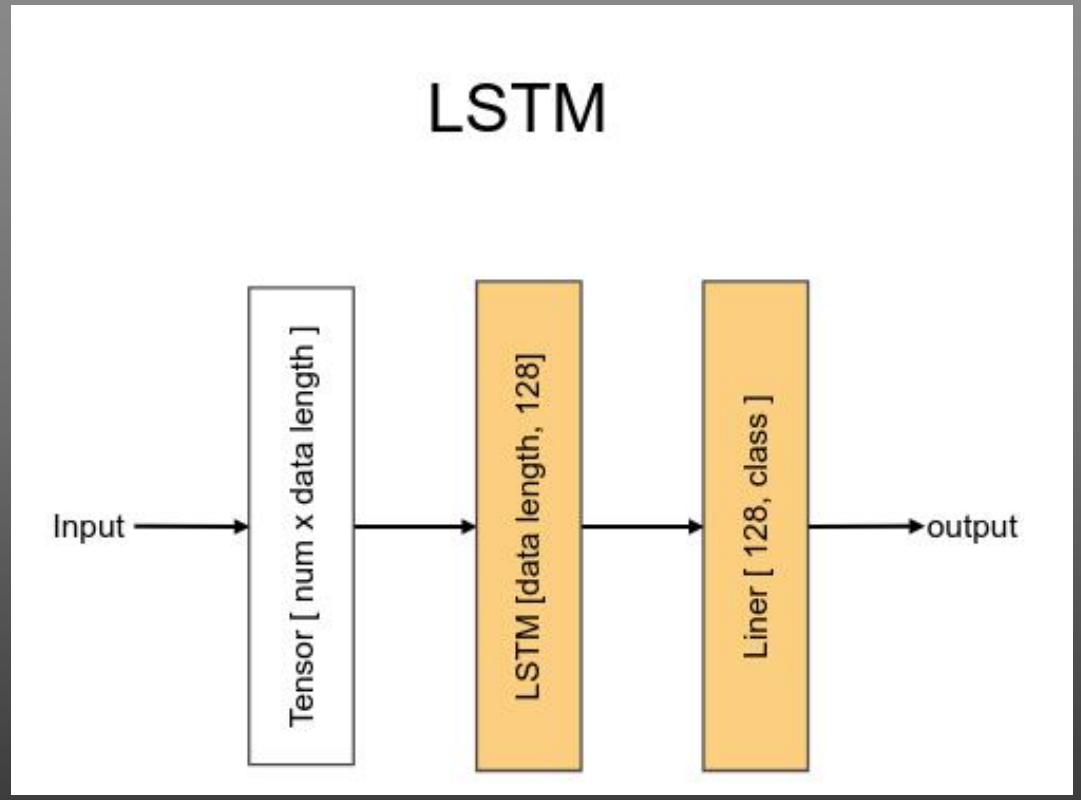


MLP SARS CoV2 - class nums sum >10

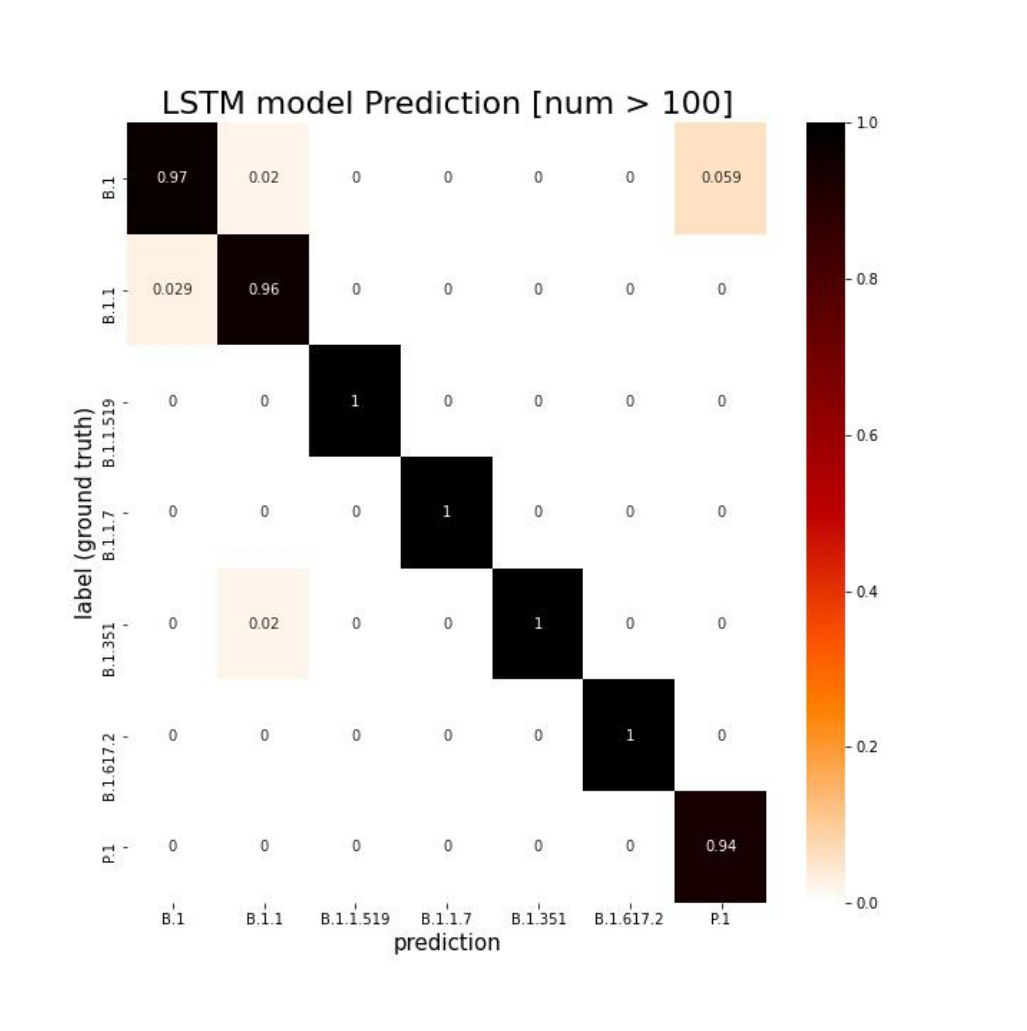


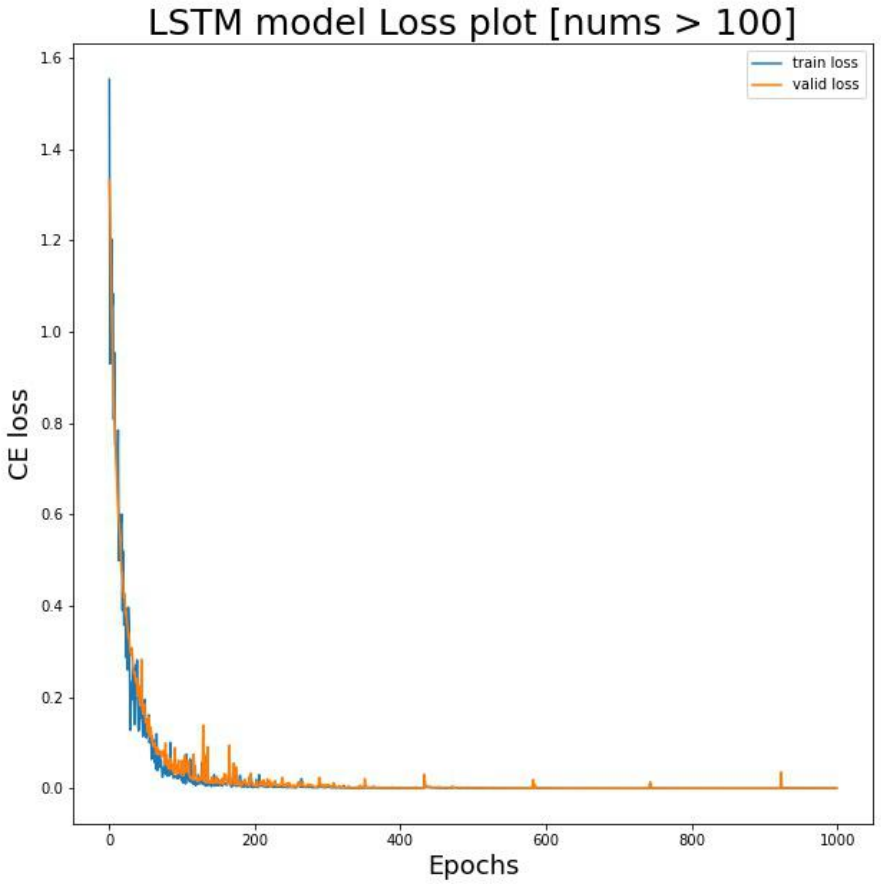


LSTM Model


LSTM
Input
Tensor [num x data length]
LSTM [data length, 128]
Liner [128, class]
output

LSTM SARS CoV2 - class nums sum >100





	nums>10	nums>50	nums>100
	MLP		
Train Accuracy(Original)	0.996774194	0.996013667	0.995283019
Train Accuracy(Week)	0.998790323	1	1
Valid Accuracy(Original)	0.933814681	0.971039182	0.982332155
Valid Accuracy(Week)	0.959085439	0.989761092	0.989399293
	LSTM		
Train Accuracy(Original)	0.991935484	1	1
Train Accuracy(Week)	1	1	1
Valid Accuracy(Original)	0.924187726	0.98637138	0.987632509
Valid Accuracy(Week)	0.959085439	0.991467577	0.989399293

	nums>10		nums>50		nums>100	
	K - fold (LSTM)					
Train Accuracy(Week)	0.998 - 1.000	0.999	1.000 - 1.000	1.000	1.000 - 1.000	1.000
Valid Accuracy(Week)	0.954 - 0.962	0.960	0.980 - 0.993	0.988	0.984 - 0.995	0.990