Supplementary Figures and Tables
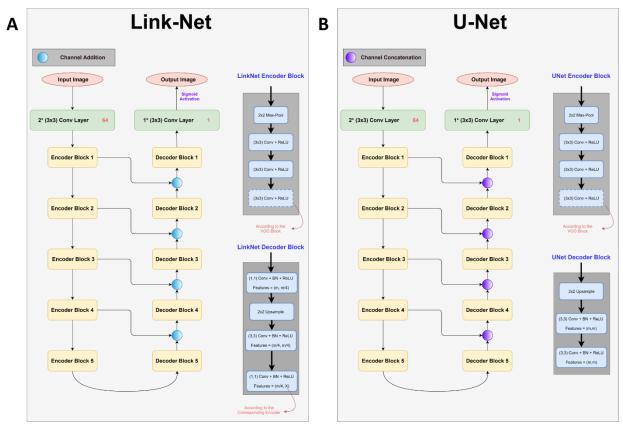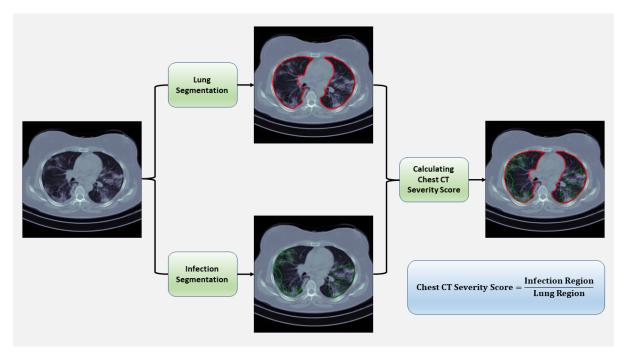
Appendix 1. A summary of used COVID-19 CT datasets
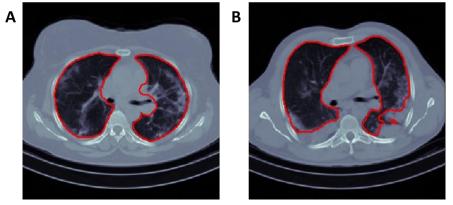
Dataset name	# of subjects	# of slices	Used For
Private #1	297 (147 C, 150 N)*	8739	Training and testing
Private #2	82	3669	Testing of the model trained on the private dataset #1
Public #1 (COVID19-P20)	20	3520	Training and testing
Public #2 (MosMedData)	50	2049	Training and testing
*: C refers to COVID-19 subjects, and N refers to Normal subjects			

Appendix 2. Comparison of Link-Net (A) and U-Net (B) architectures for semantic segmentation. The block diagrams illustrate the similarity and difference of Link-Net-based and U-Net based models. The encoder parts are the same in both models; however, decoder parts consist of different layer structures.

Appendix 3. General procedure for calculating chest CT severity score for a single CT slice. Chest CT severity scores are calculated for each lung volume.

Appendix 4. Accurate (A) and inaccurate (B) lung segmentation. When training the model using lung-segmented CT images, the inaccurate segmentations progress into model's learning stage, reducing the performance in terms of DSC.