## **Supplementary Material**

More visual comparisons are provided as suggested by reviewer 3 and reviewer 4. The testing codes, the trained model and all results using our method can be found at https://github.com/zxg3017/UG-Net.

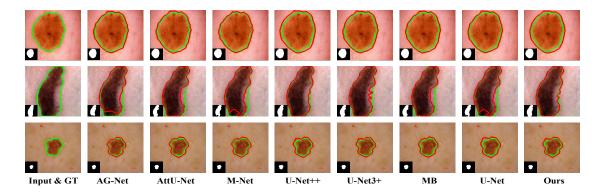


Figure 1: Visualization of skin lesion segmentation performance produced from several CNN models on the ISIC-2017 dataset. The regions of ground truth are shown in green lines. The red lines of the picture denote the segmentation results using our proposed segmentation model.

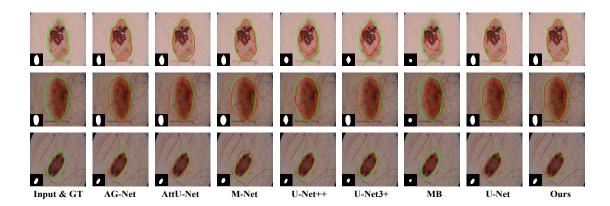


Figure 2: Visualization of skin lesion segmentation performance produced from several CNN models on the ISIC-2017 dataset. The regions of ground truth are shown in green lines. The red lines of the picture denote the segmentation results using our proposed segmentation model.

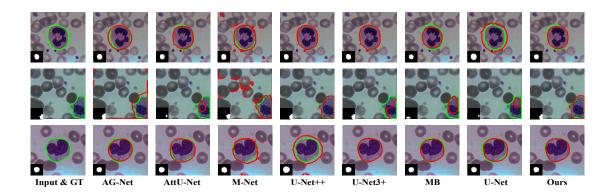


Figure 3: Visualization of WBC segmentation performance produced from several CNN models on the BCISC dataset. The regions of ground truth are shown in green lines. The red lines of the picture denote the segmentation results using our proposed segmentation model.

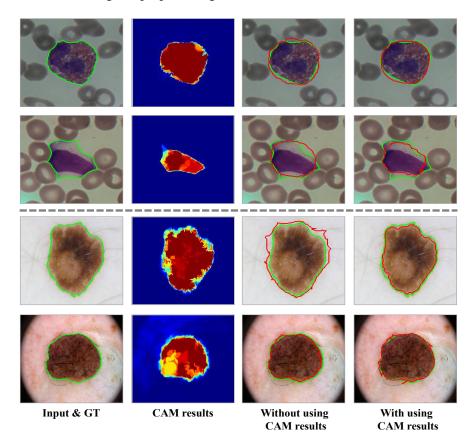


Figure 4: Comparison of the segmentation performance obtained by our proposed segmentation method with or without using the CAM results: (a) input images, (b) color activation mapping (CAM) obtained using the proposed US module, (c) segmentation results obtained when using coarse masks, and (d) segmentation results obtained when not using coarse masks. The regions of ground truth are shown in green lines. The red lines of the picture denote the segmentation results using our proposed segmentation model.