## **Supplementary material**

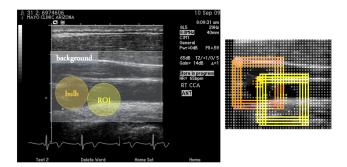


Figure 9: For constrained ROI localization, we use a 3-way CNN whose training image patches are extracted from a grid of points on the background and around the ROI and the carotid bulb locations.

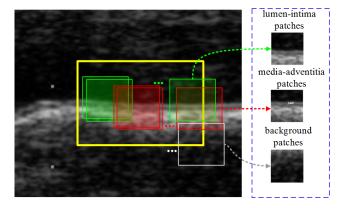


Figure 10: For lumen-intima and media-adventitia interface segmentation, we use a 3-way CNN whose training image patches are extracted from the background and around the lumen-intima and media-adventitia interfaces.