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(54) Title: IMAGE SEGMENTATION SYSTEM AND METHOD

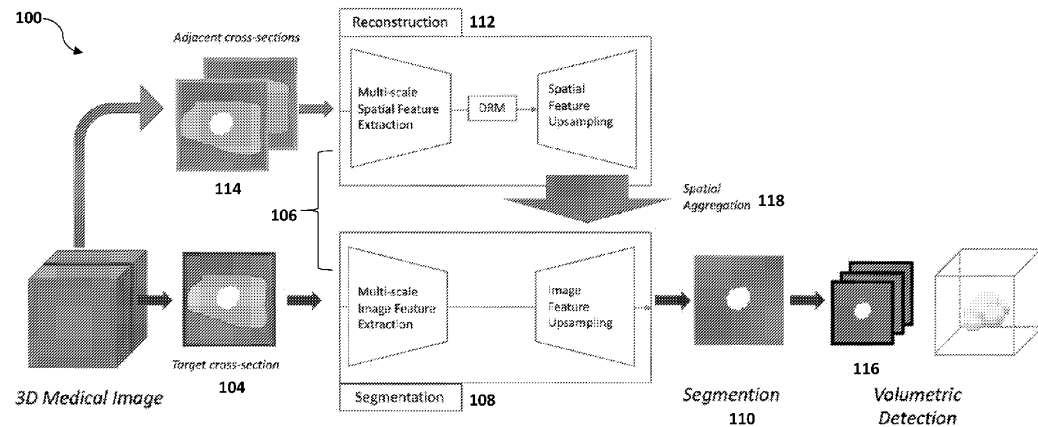


Figure 1

(57) Abstract: Disclosed herein is a method of segmenting a volumetric image comprising a plurality of slices, the method comprising: inputting a target slice of the volumetric image to a deep neural network (DNN) having a multi-task learning architecture, the multi-task learning architecture comprising: a segmentation DNN that is configured to output a segmentation of the target slice; and a reconstruction DNN that is configured to: receive a plurality of adjacent slices to the target slice; and output a reconstruction of the target slice based on the plurality of adjacent slices; wherein the reconstruction DNN is further configured to share spatial information with the segmentation DNN, the spatial information being indicative of correlations between the adjacent slices and the target slice.

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