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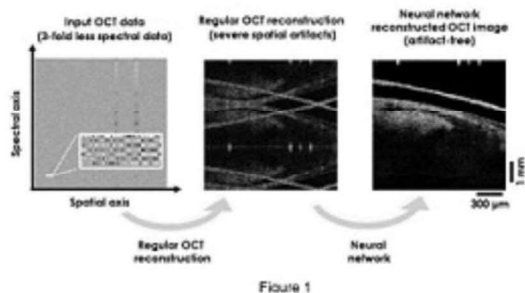
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(57) Abstract :

[034] The present invention discloses a supervised machine learning based system for reconstructing an image from tomographic data using deep learning-based image processing and method thereof. The system includes, but not limited to, a deep learning algorithm designed in at least one algorithm step on a raw data set or an intermediate data set of tomographic data to produce a final reconstructed picture. when executing at least one algorithm, the following is done: using a minimum of one standard, non-deep-learning method to process the tomographic data's raw data in order to produce an interim data set comprising an initial reconstructed picture; and on the intermediate data set, a deep learning algorithm is used to produce the final reconstructed image. Further, in order to create the final reconstructed image, at least one approach involves running a deep learning algorithm directly on the raw data set and further, a deep network executes the deep learning method. a deep neural network is used as the deep network. wherein a convolutional neural network executes the deep learning algorithm (CNN). Accompanied Drawing [FIG. 1]



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