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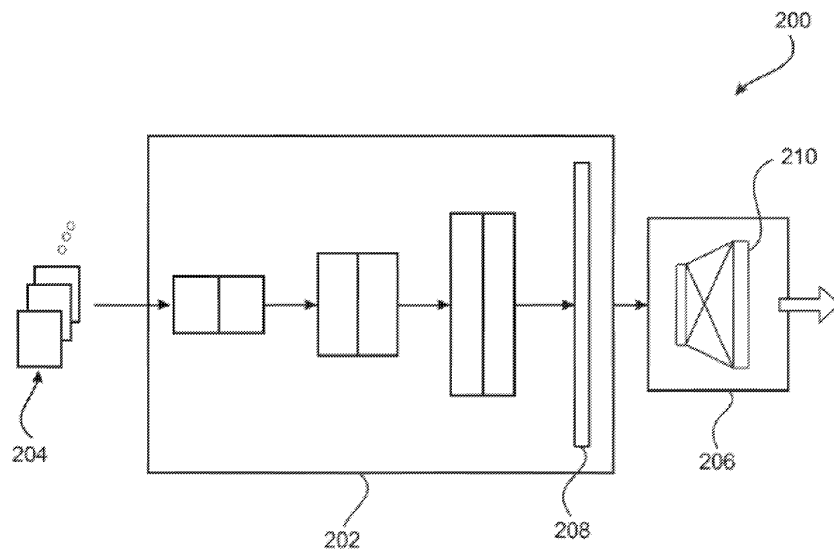


FIGURE 2

(57) Abstract: Systems and methods for detecting visual findings such as visual anomaly findings in computed tomography (CT) scans. The method includes: receiving a series of anatomical images obtained from a computed tomography (CT) scan of a head of a subject; generating, using the series of anatomical images by a preprocessing layer: a spatial 3D tensor which represents a 3D spatial model of the head of the subject; generating, using the spatial 3D tensor by a convolutional neural network (CNN) model: at least one 3D feature tensor; and classifying, using at least one of the 3D feature tensors by the CNN model: each of a plurality of possible visual anomaly findings as being present versus absent, the plurality of possible visual anomaly findings having a hierarchical relationship based on a hierarchical ontology tree.

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