False Positive Reduction for Lung Nodule Detection

Our model is based on 2D Convolutional Neural Networks (CNN). The first convolution kernel learns in a similar way to a 3D convolution kernel by using all the data on the transverse plane as channels. To improve performance, we use residual learning method [1].

We extract 3D voxel data and use 1mm shift and transverse plane rotation for training data augmentation. We evaluation our model in 5-fold cross-validation.

Due to the intellectual property associated with our system, additional details cannot be released at this point.

Contact: Bum-Chae Kim, bckim88@korea.ac.kr.
Machine Intelligence Lab., dept. Brain and Cognitive Engineering,
Korea University, Rep. of Korea.

References
[1]   K. He et al., "Deep residual learning for image recognition," arXiv preprint arXiv:1512.03385, 2015.