

1. For some applications, segmentation networks, such as U-net, can be optimized using only image-level labels when adding a global pooling layer before the network's output. **(this thesis)**
2. Neural networks do not always need massive amounts of data to work properly. **(this thesis)**
3. In medical image analysis, data augmentation can be at least equally important as the choice of network architecture. **(this thesis)**
4. Neural networks optimized using only the volume or number of lesions in a brain region can correctly identify the location of lesions during inference. **(this thesis)**
5. Methods that compute visual explanations for neural networks can focus on different imaging features, and the results can vary greatly between methods. Accurate object detection cannot be achieved using the same method in all datasets. **(this thesis)**
6. The focus on segmentation in medical image analysis research is disproportionate in regard to the need for such methods in medicine. For many clinical applications, analysis resulting in a single number will be sufficient.
7. Leveraging unlabeled medical images is one of the next challenges in machine learning for medical image analysis.
8. Some people worry about the close advent of AI supremacy and dominion over mankind. Did the same people try to speak with Google assistant? Mankind is currently facing more alarming threats.
9. The world and its details are too complex to be fully understood by a single human mind. Collective human intelligence has better odds.
10. It should be realised that applied science is always an approximation of the truth.
11. Art and science define humanity. To feel complete, one must embrace both.