

Medical Image Processing (Hieu Trung Huynh)

Problem Set 5 (Detecting COVID-19 in CT images)

Coronavirus disease 2019 (COVID-19) has infected millions of individuals all over the world. One major hurdle in controlling the spreading of this disease is the inefficiency and shortage of medical tests. To mitigate the inefficiency and shortage of existing tests for COVID-19, there is a competition to develop effective Deep Learning techniques for diagnosing COVID-19 based on CT images. The details of this challenge is at <https://covid-ct.grand-challenge.org/CT-diagnosis-of-COVID-19/>

The problem in this challenge is to classify each CT image into positive COVID-19 (the image has clinical findings of COVID-19) or negative COVID-19 (the image does not have clinical findings of COVID-19). It's a binary classification problem based on CT images.

Note:

- The dataset details are described in: <https://arxiv.org/pdf/2003.13865.pdf>
- You can refer two baseline methods for the community to benchmark with. The code are in the "baseline methods" folder and the details are in the readme files under that folder. The methods are described in [Sample-Efficient Deep Learning for COVID-19 Diagnosis Based on CT Scans](#)