Material Document:

In this document, I will explain how to use the codes I have attached in this directory. I have added comments in the code files that I have referred to from open sources.

1. 2D_Unet folder:

This folder contains the code for training the 2D Unet model. Through changing the parameters of the number of channels and the number of classes in the target masks, it can be used to train the models with different numbers of target classes.

2. 3D_Unet folder:

This folder contains the code for the training of the 3D Unet. Through changing the parameters of the number of channels and the number of classes in the target masks, it can be used to train the models with different numbers of target classes.

3. Coordinate Transform folder:

This folder demonstrates the transformation process of images from the LA coordinate system to the SA coordinate system, and how the transformed LA image is concatenated with the SA image.

4. Fourier Domain Adaptation folder:

This folder contains the files that demonstrate how I used the fourier domain adaptation technique to transform multiple domains of the LA and SA images into the same domain.

5. TransUnet 2D folder:

This folder contains the transnet code that i've used in this project. This code is partially referred from https://github.com/mkara44/transunet_pytorch.

6. Medical Segmentation Decathlon

I pre-trained the 2D and 3D models on this medical segmentation decathlon dataset. It can be accessed from http://medicaldecathlon.com/.

7. The M&M2 Dataset

The main dataset I have used in this project is the M&M2 dataset. In order to access this dataset, researchers can go to the official website of this challenge at https://www.ub.edu/mnms-2/.