

## Medical Image Processing (Hieu Trung Huynh)

### Problem Set 3 (Image Segmentation)

Solutions should include relevant images and original code of the algorithms developed along with any discussion requested.

1. Implement the Otsu algorithm and apply it for lung segmentation in chest X-rays (Chest\_UoC\_paxx.img, these are raw images with the size of 440x440, 16-unsigned bit pixels). Apply it for lung segmentation in images Chest\_HoanMy\_xxx. Comment on results.
2. Develop the algorithms for liver segmentation in MR images.
  - a) Use Watershed segmentation.
  - b) Use the fast-marching algorithm only
  - c) Combine the fast-marching algorithm and level segmentation.Comment on results.