

# Report Structure

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## 1 GENERAL

This document provides an overview of the report you need to hand in. The report only has to contain what is specified in this document. You do not have to explain your code if you did not make any major changes to the framework or assigned implementation tasks. There will be a demo session in class on Thursday 2/7/2019. The deadline to upload the code and the report is Thursday 2/7/2019 11:59 PM on Canvas.

## 2 ACTIVE CONTOUR

For the demo session, please choose one set of parameters that works well for all example images. There will not be enough time to change the parameters during the demo session.

To prepare your report, please run your implementation on all provided example images. Try to tweak the parameters and number of iterations to achieve the best possible results. Write a report that includes:

- The original image with the initialization you used.
- The resulting image with the segmentation.
- The used parameters.

Include at least the following scenarios:

- For the binary images (*circle, shape, square, star*) and the *vase* segment the objects.

- For the *dental* image segment the row of teeth.
- For the image of the *brain*, segment:
  - The outer shell of the skull.
  - The inner contour of the brain matter.
  - The right eye hole.

### 3 U-NET

For the U-Net please show *at least three* predicted segmentations together with the input image and the ground truth label map. If your model takes a long time to train, be sure to have a pretrained model ready for the demo session.

Furthermore, give some information on your implementation in the report:

- Did you train your network on GPU or CPU?
- How big was the size of the images you trained the network on? (You are allowed to rescale the images in the dataset to speed up the training and help with memory usage. For the final results, use a size of at least 128x128.)
- Which data augmentation strategies did you use?
- Did you deviate from the original network structure? (E.g. with the ReLU in the last step.)
- How many epochs did you train?
- How long did your training take?