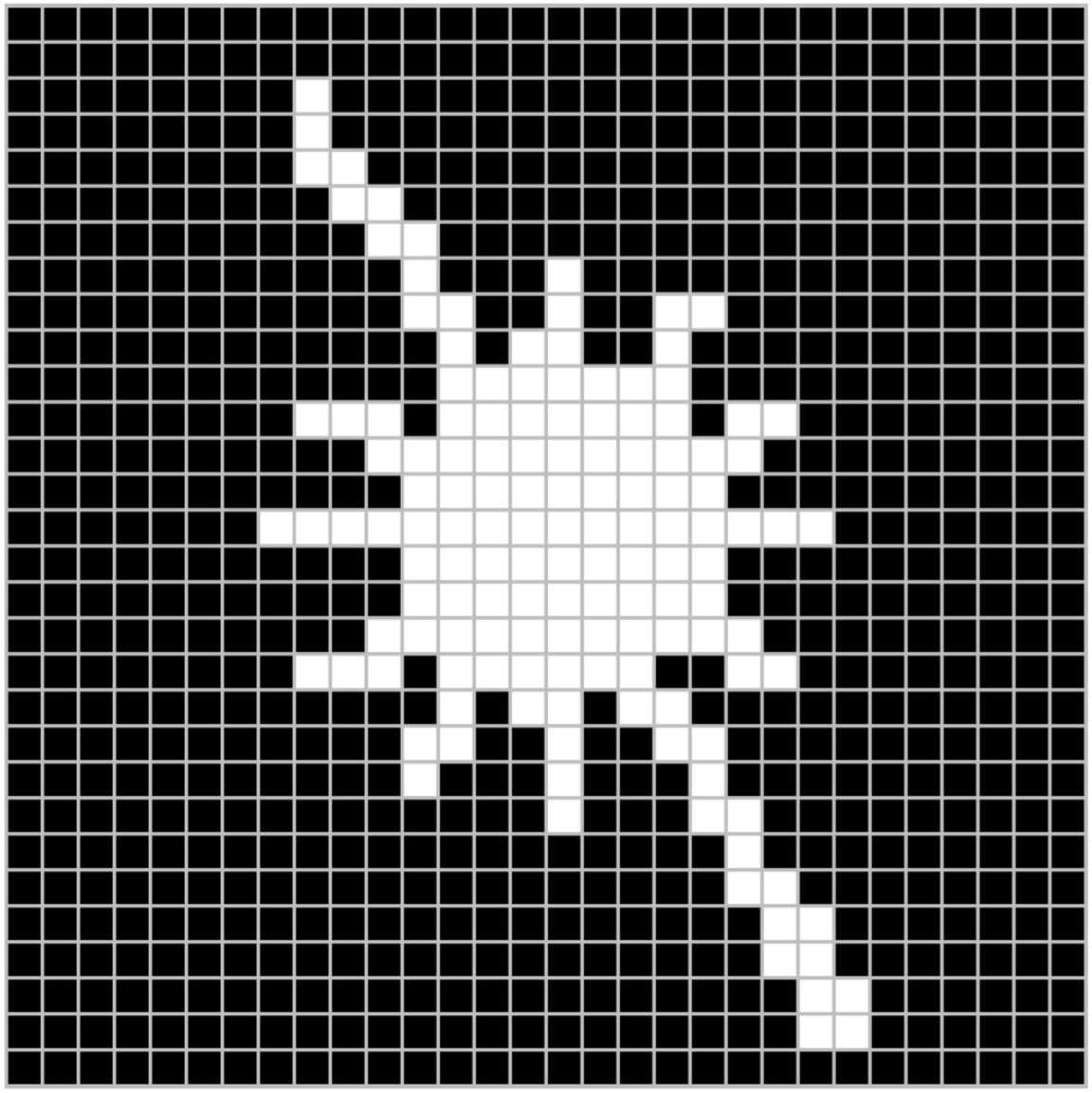
Question 4 (25 points): 13:25-13:55 (should submit by 14:00)

Suppose that you want to segment near-circular cells in an image. However, your segmentation algorithm produces erroneous segmentation maps, typical example of which is given below.



a) Propose a postprocessing pipeline to correct such a segmentation map. Only use traditional postprocessing methods.

   Note that this question asks you to propose a pipeline, for example, by giving a pseudocode, but not to implement it. Thus, you should not implement this pipeline by writing a computer program.

b) Suppose that this segmentation result is obtained by a dense prediction network (e.g., your segmentation algorithm is a U-net model). Propose a modification(s) in the network, or alternatively in the network training, that leads to better segmentation maps.

The quality of your proposals and their technical soundness will affect the points that you will get from this question.