

## Machine Learning LAB.

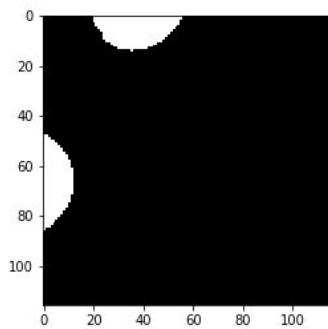
### Exercise 4 - U-Net .

#### 1. Accuracy curves.

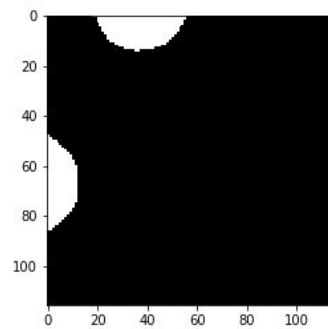
Unfortunately I do not have plot with accuracy for validation and training set. You can check that I have implemented code that should save plot with those curves, however after running it has not been saved on hard drive. If this is needed I can try to run it again and attached it later to my code. I believe that there might be two reasons for that incomplete termination of the process invoked by human or system reset that is set on midnight.

#### 2. Classification of cell and background.

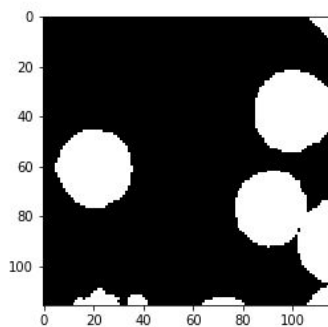
Despite small problems with first exercise I have obtained label and prediction after 1000 iteration. Below I have put examples for every 10000-th iterations. In my github repository I have attached prediction label pairs for every 1000-th iteration.



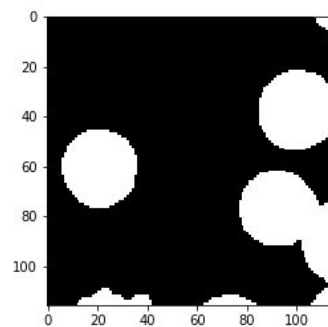
Label Image 10 Iteration 10000



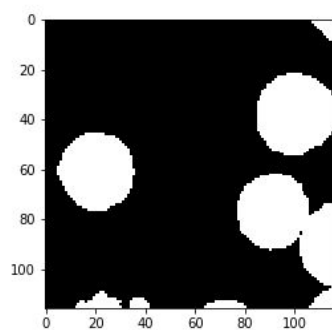
Prediction Image 10 Iteration 10000



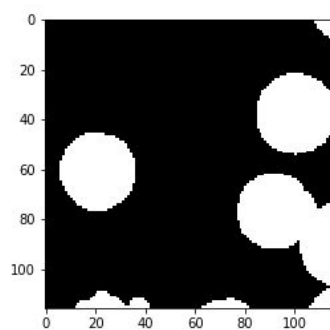
Label Image 5 Iteration 20000



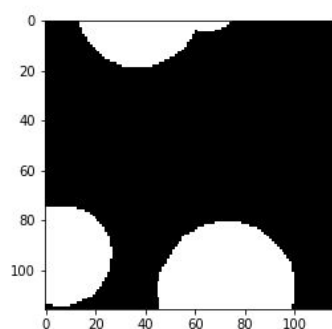
Prediction Image 10 Iteration 10000



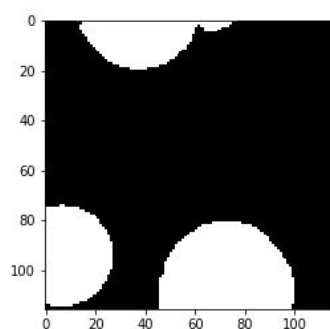
Label Image 5 Iteration 30000



Prediction Image 5 Iteration 30000



Label Image 11 Iteration 39000



Prediction Image 11 Iteration 39000

As we can see on the pictures after 10000 iteration U-net shows very good performance. Last pair it's almost the same.