

Having finished the labeling data, we began training Convolutional Neural Networks this week. Since there is one class called “doubtful neuron” that might cause some confusion to our classifier, we decided to train three-class classifier and four-class classifier separately. For three-class classifier, we only consider “clear neuron”, “noise” and “process” classes. The accuracy for three-class classifier is around 93%, which is good. The accuracy for four-class classifier is around 82%, which is less satisfactory. By doing error analysis for both classifier, we found there are some borderline cases being classified incorrectly. We will continue tune parameters, do error analysis to see how the results can be improved.