Shallow UNet Neuron Segmentation (SUNS) is an automatic algorithm to segment active neurons from two-photon calcium imaging videos. It used temporal filtering and whitening schemes to extract temporal features associated with active neurons, and used a compact shallow U-Net to extract spatial features of neurons.

System Requirements

* Anaconda with Python 3.7
* Tensorflow 1.15

Installation on Windows:

1. Install Anaconda with Python 3.7
2. Launch Anaconda prompt and type the following in order (*pathoffile* is the directory to which the provided files were downloaded to):

cd pathoffile

cd installation

conda env create -f environment\_suns.yml -n suns

1. Go to Folder “<Anaconda root>/envs/suns/Lib/site-packages/fissa”, overwrite “core.py” with the one provided in the “installation” folder. If the dataset you used is less than 4 GB, you can skip this step.