Appendix 2.

**U-net model architecture.** U-Net consists of a contracting path (encoder) and an expansive path (decoder), which gives it the symmetric u-shaped architecture. The contracting path is a typical convolutional network. During the contraction, the spatial information is reduced while feature information is increased. The expansive pathway combines the feature and spatial information through a sequence of up-convolutions and concatenations with high-resolution features from the contracting path. The model is an improved version of the FCN, which means using convolution instead of the fully connected layer. This strategy allows input any size of images, and the output is also a picture.

**Segmentation with PyTorch.** The architecture was inspired by U-Net: Convolutional Networks for Biomedical Image Segmentation.

[https://github.com/milesial/Pytorch-UNet](https://github.com/milesial/Pytorch-UNet)

**Input.** Cut out a slice (480x480 pixels) from the original OCT image (1008x596 pixels). The slice is also for training and prediction of U-net.

**Backbone.** The U-net consists of 23 convolutional layers with one contraction and one, more or less symmetric, expansion path. A concatenation of high resolution features from the contracting path to the unsampled features from the expanding path allows for localization.

[https://github.com/milesial/Pytorch-UNet/blob/master/README.md](https://github.com/milesial/Pytorch-UNet/blob/master/README.md)

**Training detail.** Training parameters batch_size = 8, epochs = 5, learning_rate = 0.000005, val_percent = 0.25 (random_split)