



Explore MRI data

Image segmentation

- ✓ **Video:** MRI Data and Image Registration
3 min
- ✓ **Video:** Segmentation
3 min
- 🔒 **Lab:** Get a sub section
1h
- ✓ **Reading:** Convolutional Neural networks
10 min
- ✓ **Video:** 2D U-Net and 3D U-Net
2 min
- ✓ **Reading:** More about U-Net (Optional)
10 min
- 🔒 **Lab:** Implement U-Net
1h
- ✓ **Video:** Data augmentation for segmentation
2 min
- ✓ **Video:** Loss function for image segmentation
3 min

Practical considerations

Quiz week 3

Programming: 3D Image Segmentation

Summary of AI for Medical Diagnosis



More about U-Net (Optional)

For a brief video introduction to U-Net by the original creators, Olaf Ronneberger, Philipp Fischer, Thomas Brox, please visit their site [U-Net: Convolutional Networks for Biomedical Image Segmentation](#).

If you would like more detail, start with this blog post by [Heet Sankesara "UNet"](#).

To go deeper, you can read the original research paper [U-Net: Convolutional Networks for Biomedical Image Segmentation](#) by Olaf Ronneberger, Philipp Fischer, Thomas Brox

As a reminder, you will be using a pre-trained U-Net model, and so you can still complete this course without knowing the specific details of implementing the U-Net from scratch.

✓ Complete

Go to next item

