



CENTER FOR BIOMEDICAL IMAGING IN ONCOLOGY

Lurie Family Imaging Center



Dana-Farber  
Cancer Institute



HARVARD MEDICAL SCHOOL  
TEACHING HOSPITAL

## Instruction to run the machine learning train and inference programs

Install all the requirements (make sure you have all):

```
pip install -r requirements.txt
```

### Run the train machine learning program

- 1) Open the “brain\_train” folder with the train.py program
- 2) Copy the selected training folders (minimum 16 folders: batch of 16) with images .tif from folder XX to “kaggle\_3m” (remove all “vol.txt” files)
- 3) Open Terminal and run the “train.py” as:

```
python train.py
```

### Run the inference program for tests images

- 1) Open the “brain\_inference” folder
- 2) Copy the folders for testing with images .tif from folder XX to “kaggle\_3m” (keep the “vol.txt” files in the folders)
- 3) Copy the weight folder from “brain\_train” and paste to “brain\_inference”
- 4) Open Terminal and run the “inference\_and\_analysis.py” as:

```
python inference_and_analysis.py --weights ./weights/unet.pt
```

more info about the programs can be found in:

<https://github.com/mateuszbuda/brain-segmentation-pytorch#inference>