➜ executed-ultrasound-nerve-segmentation python3 train.py

/home/nizam/.local/lib/python3.8/site-packages/skimage/io/manage\_plugins.py:23: UserWarning: Your installed pillow version is < 7.1.0. Several security issues (CVE-2020-11538, CVE-2020-10379, CVE-2020-10994, CVE-2020-10177) have been fixed in pillow 7.1.0 or higher. We recommend to upgrade this library.

from .collection import imread\_collection\_wrapper

2021-05-17 22:32:19.666632: W tensorflow/stream\_executor/platform/default/dso\_loader.cc:60] Could not load dynamic library 'libcudart.so.11.0'; dlerror: libcudart.so.11.0: cannot open shared object file: No such file or directory

2021-05-17 22:32:19.666674: I tensorflow/stream\_executor/cuda/cudart\_stub.cc:29] Ignore above cudart dlerror if you do not have a GPU set up on your machine.

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Loading and preprocessing train data...

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Creating and compiling model...

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2021-05-17 22:35:11.138642: I tensorflow/compiler/jit/xla\_cpu\_device.cc:41] Not creating XLA devices, tf\_xla\_enable\_xla\_devices not set

2021-05-17 22:35:11.184060: W tensorflow/stream\_executor/platform/default/dso\_loader.cc:60] Could not load dynamic library 'libcuda.so.1'; dlerror: libcuda.so.1: cannot open shared object file: No such file or directory

2021-05-17 22:35:11.184127: W tensorflow/stream\_executor/cuda/cuda\_driver.cc:326] failed call to cuInit: UNKNOWN ERROR (303)

2021-05-17 22:35:11.184178: I tensorflow/stream\_executor/cuda/cuda\_diagnostics.cc:156] kernel driver does not appear to be running on this host (nizam-Latitude-E6430): /proc/driver/nvidia/version does not exist

2021-05-17 22:35:11.191775: I tensorflow/compiler/jit/xla\_gpu\_device.cc:99] Not creating XLA devices, tf\_xla\_enable\_xla\_devices not set

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Fitting model...

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2021-05-17 22:35:12.472263: I tensorflow/compiler/mlir/mlir\_graph\_optimization\_pass.cc:116] None of the MLIR optimization passes are enabled (registered 2)

2021-05-17 22:35:12.615675: I tensorflow/core/platform/profile\_utils/cpu\_utils.cc:112] CPU Frequency: 2691130000 Hz

Epoch 1/20

141/141 [==============================] - 1185s 8s/step - loss: -0.0251 - accuracy: 0.2096 - val\_loss: -0.0202 - val\_accuracy: 0.4091

Epoch 2/20

141/141 [==============================] - 1216s 9s/step - loss: -0.0281 - accuracy: 0.2761 - val\_loss: -0.0509 - val\_accuracy: 0.8649

Epoch 3/20

141/141 [==============================] - 1246s 9s/step - loss: -0.1733 - accuracy: 0.9256 - val\_loss: -0.1779 - val\_accuracy: 0.9499

Epoch 4/20

141/141 [==============================] - 1203s 9s/step - loss: -0.2552 - accuracy: 0.9570 - val\_loss: -0.1631 - val\_accuracy: 0.9820

Epoch 5/20

141/141 [==============================] - 1220s 9s/step - loss: -0.3118 - accuracy: 0.9681 - val\_loss: -0.1895 - val\_accuracy: 0.9835

Epoch 6/20

141/141 [==============================] - 1230s 9s/step - loss: -0.3674 - accuracy: 0.9724 - val\_loss: -0.2522 - val\_accuracy: 0.9776

Epoch 7/20

141/141 [==============================] - 1241s 9s/step - loss: -0.3841 - accuracy: 0.9736 - val\_loss: -0.2559 - val\_accuracy: 0.9835

Epoch 8/20

141/141 [==============================] - 1238s 9s/step - loss: -0.4111 - accuracy: 0.9744 - val\_loss: -0.3273 - val\_accuracy: 0.9792

Epoch 9/20

141/141 [==============================] - 1248s 9s/step - loss: -0.4354 - accuracy: 0.9749 - val\_loss: -0.3222 - val\_accuracy: 0.9821

Epoch 10/20

141/141 [==============================] - 1227s 9s/step - loss: -0.4585 - accuracy: 0.9758 - val\_loss: -0.3278 - val\_accuracy: 0.9825

Epoch 11/20

141/141 [==============================] - 1236s 9s/step - loss: -0.4771 - accuracy: 0.9764 - val\_loss: -0.3609 - val\_accuracy: 0.9812

Epoch 12/20

141/141 [==============================] - 1216s 9s/step - loss: -0.4813 - accuracy: 0.9759 - val\_loss: -0.3760 - val\_accuracy: 0.9792

Epoch 13/20

141/141 [==============================] - 1234s 9s/step - loss: -0.4973 - accuracy: 0.9769 - val\_loss: -0.3766 - val\_accuracy: 0.9812

Epoch 14/20

141/141 [==============================] - 1236s 9s/step - loss: -0.4929 - accuracy: 0.9771 - val\_loss: -0.3840 - val\_accuracy: 0.9773

Epoch 15/20

141/141 [==============================] - 1223s 9s/step - loss: -0.5308 - accuracy: 0.9770 - val\_loss: -0.3736 - val\_accuracy: 0.9823

Epoch 16/20

141/141 [==============================] - 1230s 9s/step - loss: -0.5274 - accuracy: 0.9776 - val\_loss: -0.3997 - val\_accuracy: 0.9790

Epoch 17/20

141/141 [==============================] - 1231s 9s/step - loss: -0.5380 - accuracy: 0.9781 - val\_loss: -0.3183 - val\_accuracy: 0.9831

Epoch 18/20

141/141 [==============================] - 1232s 9s/step - loss: -0.5488 - accuracy: 0.9785 - val\_loss: -0.4049 - val\_accuracy: 0.9788

Epoch 19/20

141/141 [==============================] - 1232s 9s/step - loss: -0.5656 - accuracy: 0.9778 - val\_loss: -0.4004 - val\_accuracy: 0.9798

Epoch 20/20

141/141 [==============================] - 1232s 9s/step - loss: -0.5779 - accuracy: 0.9789 - val\_loss: -0.4044 - val\_accuracy: 0.9780

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Loading and preprocessing test data...

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Loading saved weights...

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Predicting masks on test data...

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173/173 [==============================] - 386s 2s/step

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Saving predicted masks to files...

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train.py:150: UserWarning: preds/100\_pred.png is a low contrast image

imsave(os.path.join(pred\_dir, str(image\_id) + '\_pred.png'), image)

train.py:150: UserWarning: preds/1000\_pred.png is a low contrast image

imsave(os.path.join(pred\_dir, str(image\_id) + '\_pred.png'), image)