Dataset taken from https://www.kaggle.com/c/ultrasound-nerve-segmentation

Ultrasound nerve images of the neck region

The dataset is in data/ folder and has only 10 images in both test/ and train/ folders please download full dataset if needed and follow same directory structure

Run programs as (please refers to logs provided)

data.py - load data, create numpy binaries

train.py - generate weights.h5 and model.h5 (trained using data/train/ folder)

summary.py - see a summary of our trained model

predict.py - images from data/test/ outputs are predicted to preds/ folder

predict.py takes 2 or more numeric command line arguments to show images from test which are predicted in preds/ folder

Example

python3 predict.py 13 15 17

gives 6 images as output the 13th, 15th, 17th image(ultrasound input image) on the left

and 3 black and white images on the right, the white region denoting where the required nerve is present in the orginal image.