Cough Segmentation

remove previous data

add yamnet to serach path

Create audioDatastore object of the data and split it into train and validation sets

Create audioFeatureExtractor object from audio signals

Extract features from train and validation sets

cough segmentation requires only 2 classes (cough / non-cough).

Read in YAMNet, convert it to a [layerGraph](docid:nnet_ref#mw_399d64ed-680b-46f0-af77-0472ba1910d8), and then replace the final [fullyConnectedLayer](docid:nnet_ref#mw_1e7fbc56-4746-4f30-8cd9-7048ce806a0d) and the final [classificationLayer](docid:nnet_ref#bu5lho8) to reflect the new task.

Define training options

Train and save network

evaluate the performance of the network on the test set using:

* ROC & AUC
* confusion matrix
* accuracy, sensetivity, PPV, F1-score

plot segmentation results on validation data set