

Useful Links

Code:

https://github.com/cmescobar/Lung_heart_source_separation

<https://github.com/vivekkarn/classification-of-heart-sounds>

<https://github.com/tracy2811/heart-sound-classification>

<https://github.com/davidspringer/Springer-Segmentation-Code>

<https://github.com/egrooby-monash/Heart-and-Lung-Signal-Quality-Estimation>

<https://github.com/egrooby-monash/Heart-and-Lung-Sound-Separation>

https://github.com/egrooby-monash/Heart-and-Lung-Signal-Quality-Estimation/blob/main/get_all_SQIs.m

<https://github.com/tarek-hamid/respiration-rate-algorithm>

https://github.com/BCML-KW/BCG_HeartRate_Respiration-1/blob/main/HR_RES_estimate.m

Articles:

<https://biomedical-engineering-online.biomedcentral.com/articles/10.1186/s12938-015-0056-y>

file:///C:/Users/Asus/Downloads/Study_and_Analysis_of_Electronic_Stethoscope_Signa.pdf

<https://arxiv.org/ftp/arxiv/papers/2012/2012.06275.pdf>

<https://weichian0920.github.io/>

http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0120-62302012000300016

https://biosignal.uconn.edu/wp-content/uploads/sites/2503/2018/09/07_Nam_2016_JBHI.pdf

<https://dergipark.org.tr/en/download/article-file/434150>

<https://www.hindawi.com/journals/tswj/2014/182938/>

<https://arxiv.org/pdf/2012.11759.pdf>

<https://www.degruyter.com/document/doi/10.1515/cdbme-2016-0054/html?lang=en>

An article for heart sound classification:

<https://www.nature.com/articles/s41597-020-0390-1>

<https://www.mdpi.com/2076-3417/10/11/3956>

heart sound classification:

<https://github.com/Gvith/Heart-Sound-Classification/blob/master/utils.py>

https://github.com/Gvith/Heart-Sound-Classification/blob/master/ml_classifier.py

<https://github.com/Gvith/Heart-Sound-Classification>

https://github.com/tkseneeee/Classification-of-Heart-Sound/blob/master/pcg_ML.ipynb

https://github.com/prasadm0re/Heart-Sound-Classification-CinC/blob/master/HB_Bidirectional_lstm.ipynb

good:

https://github.com/aptr288/Heart_Sound_Classification/blob/master/Audio%20Classification%20ANN%20CNN%20Keras/HeartbeatAudioClassification.ipynb

For reading audio files in python just like the format of reading them in MATLAB:

<https://pypi.org/project/audiofile/>

Denoising with fft:

<https://www.arnevogel.com/denoising-functions-in-matlab-with-fft/>

https://nl.mathworks.com/matlabcentral/answers/860165-remove-noise-using-fft-based-frequency-domain-filtering-method?s_tid=prof_contriblnk

<https://nl.mathworks.com/matlabcentral/answers/1692420-how-to-remove-noise-from-the-signal-analyzed-by-fft>

Collecting dataset:

<https://www.kaggle.com/datasets/kinguistics/heartbeat-sounds?resource=download>

<https://physionet.org/content/circor-heart-sound/1.0.3/>

<http://www.peterjbentley.com/heartchallenge/>

Implementing Heart Sound Classification with LSTM:

<https://www.kaggle.com/search?q=heart+sound+classification+with+LSTM>

<https://www.kaggle.com/code/mychen76/heart-sounds-analysis-and-classification-with-lstm>

<https://www.kaggle.com/code/brsdincer/heartbeat-sounds-classification-analysis>

<https://www.kaggle.com/code/abdallahaboelkhair/heartbeat-sound-lstm-classification>

<https://www.kaggle.com/code/mayuramanawadu/heart-sounds-analysis-and-classification-with-lstm>

<https://www.kaggle.com/code/ahmedabbasi/heart-sounds-analysis-and-classification-with-lstm>

<https://www.kaggle.com/code/totalgood/heart-sounds-analysis-and-classification-with-lstm>

<https://www.kaggle.com/code/karimsaker/heartbeat-sound-lstm-classification>

<https://www.kaggle.com/code/mychen76/heart-sounds-analysis-and-classification-with-lstm>

<https://www.kaggle.com/code/brsdincer/heartbeat-sounds-classification-analysis>

<https://www.kaggle.com/code/osamaheikal/heartbeat-sound-lstm-classification-96>

lung sound classification:

Codes:

<https://www.kaggle.com/code/eatmygoose/cnn-detection-of-wheezes-and-crackles>

Articles:

<https://www.respiratorytherapyzone.com/breath-sounds-guide/>

<https://www.frontiersin.org/articles/10.3389/fmed.2021.714811/full>

<https://nabzgroup.com/mag/types-of-lung-sounds-primary>

Fixing the problem of librosa plotting:

<https://www.youtube.com/watch?v=PYlr8ayHb4g&t=32s>

Heart Sound Abnormalities (YouTube):

<https://www.youtube.com/watch?v=dBwr2GZCmQM>

<https://www.youtube.com/watch?v=QHJUKiW7tMg>

<https://www.youtube.com/watch?v=iTfxS7hjLrM>

<https://www.youtube.com/watch?v=mmHNTWQWWGw>

<https://www.youtube.com/watch?v=SZcAJVcbHaY>

Lung Sound Abnormalities (YouTube):

<https://www.youtube.com/watch?v=TlgP8MzlMaw>

<https://www.youtube.com/watch?v=KRtAqeEGq2Q>

<https://www.youtube.com/watch?v=1rve-sxs3Wk>

<https://www.youtube.com/watch?v=Z3uK3BgsqbY>

<https://www.youtube.com/watch?v=G3d7oW5dWcs>