

Audio Classification Exercise

Audio Classification

Dataset

- Kaggle dataset: **Heartbeat Sounds**
- perform beat classification into classes:
 - Artifact
 - Normal
 - Extra Heart Sound
 - Murmur
- 176 WAV recordings available



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New Notebook



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Heartbeat Sounds

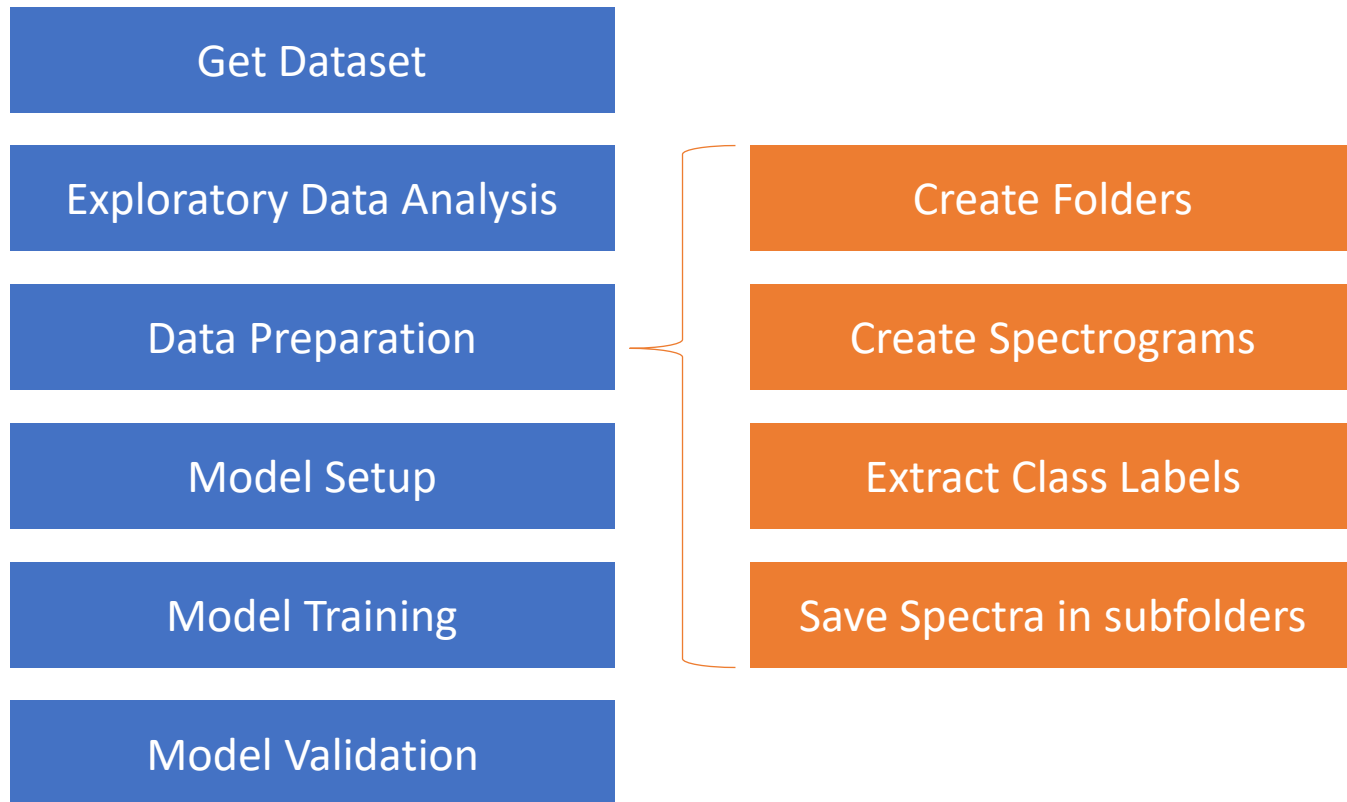
Classifying heartbeat anomalies from stethoscope audio



Source: <https://www.kaggle.com/datasets/kinguistics/heartbeat-sounds>

Audio Classification

Procedure



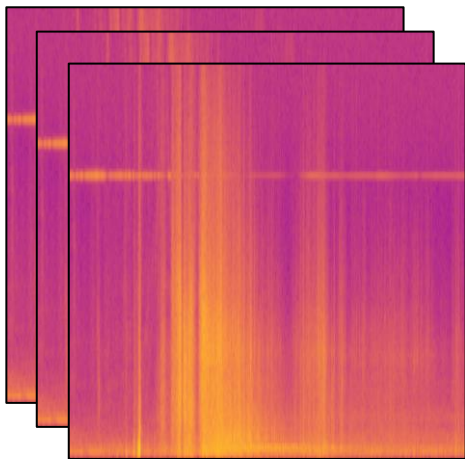
Audio Classification

Data Preparation

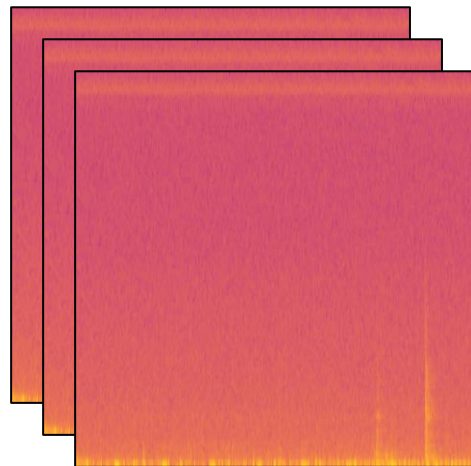
- will only work with set_a folder data
- extract **class type** from filename
- convert WAV file to spectrum image

 train

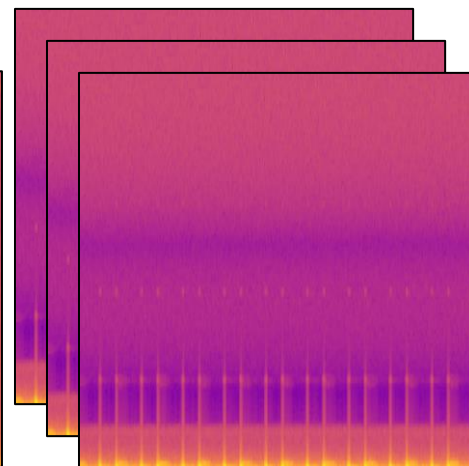
 artifact



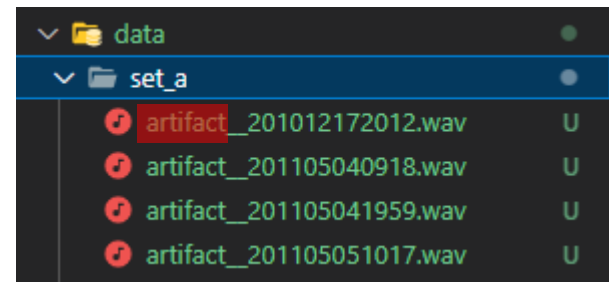
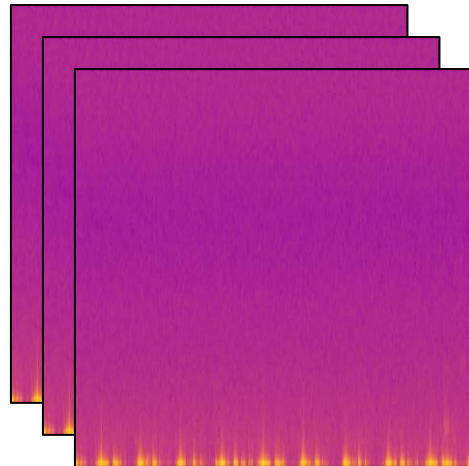
 extrahls



 murmur



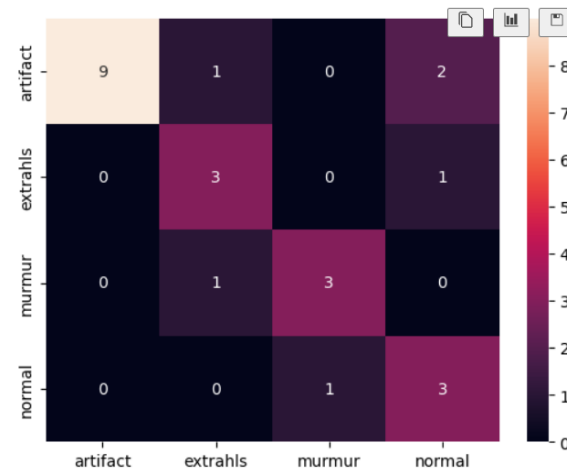
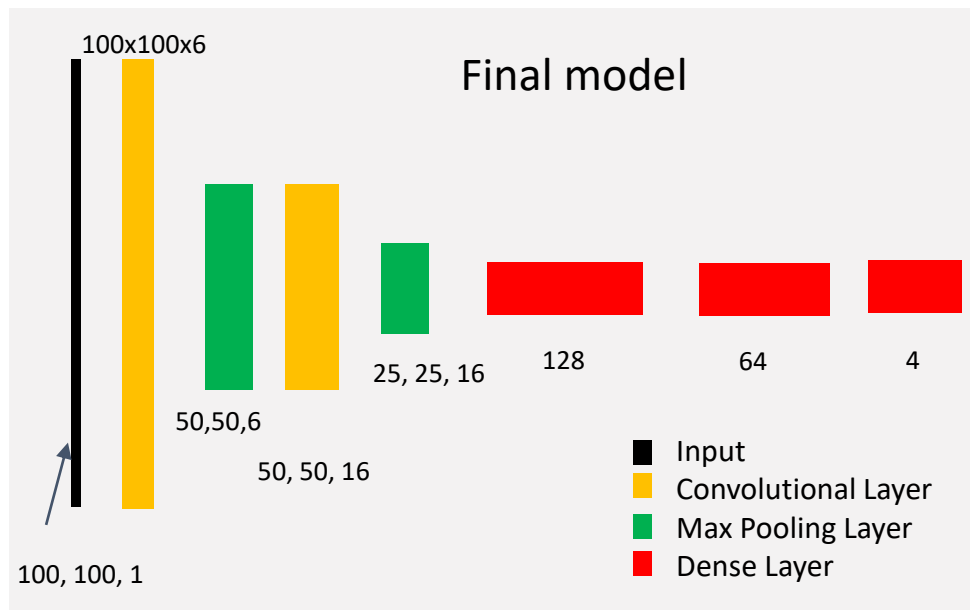
 normal



Audio Classification

Modeling

Convolutional Neural Network



Test Confusion Matrix

Accuracy: 75%

Baseline Classifier: 50%