Sonoran Trails Middle School

RET Project: Detecting Pneumonia using Audio Spectral Features

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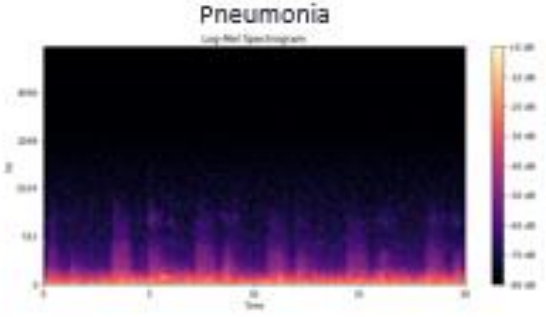
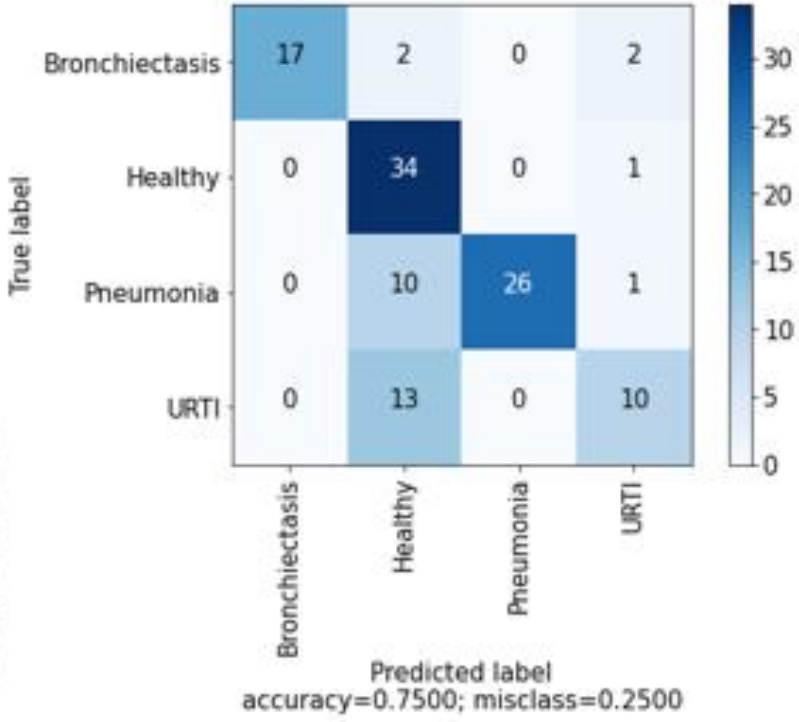
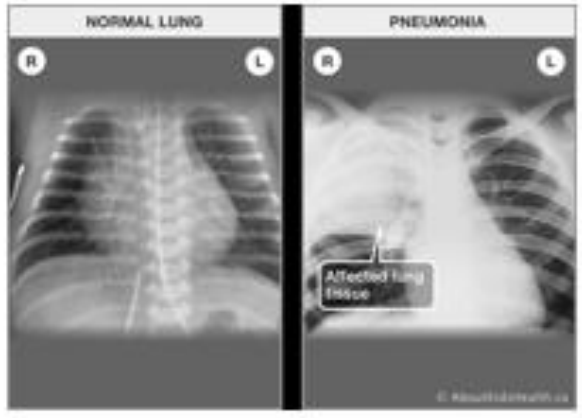
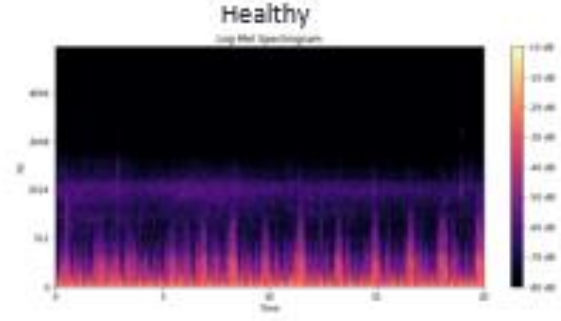
- ✓ Obtain data from audio databases of breathing cycle sounds
- ✓ Used spectral estimation and customized statistical features
- ✓ Challenge: bias in data set
- ✓ Use neural network methods to classify audio samples
- ✓ Output diagnosis / confusion matrix
- ✓ Current accuracy = 75%. Due to COPD bias in data set
- ✓ Goal: Design a lesson to inspire students to pursue a career in STEM









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