

# Product Testing

**Problem Statement:** To design a deep learning algorithm which will be capable of analysing and predicting the type of instruments used in a classical song.

Scenario 1: Two simple classical song

```
Instruments Used in 2382.wav:  
Instrument 1: 91.14%  
Instrument 41: 0.58%  
Instrument 42: 0.28%  
Instrument 43: 7.99%  
Instrument 44: 0.0%  
Instrument 61: 0.0%  
Instrument 69: 0.0%  
Instrument 7: 0.0%  
Instrument 71: 0.0%  
Instrument 72: 0.0%  
Instrument 74: 0.0%
```

```
Instruments Used in 1729.wav:  
Instrument 1: 94.06%  
Instrument 41: 1.5%  
Instrument 42: 0.25%  
Instrument 43: 4.19%  
Instrument 44: 0.0%  
Instrument 61: 0.0%  
Instrument 69: 0.0%  
Instrument 7: 0.0%  
Instrument 71: 0.0%  
Instrument 72: 0.0%  
Instrument 74: 0.0%
```

## Scenario 2: Music other than classical gener

Instruments Used in 1729.wav:

Instrument 1:	94.06%
Instrument 41:	1.5%
Instrument 42:	0.25%
Instrument 43:	4.19%
Instrument 44:	0.0%
Instrument 61:	0.0%
Instrument 69:	0.0%
Instrument 7:	0.0%
Instrument 71:	0.0%
Instrument 72:	0.0%
Instrument 74:	0.0%

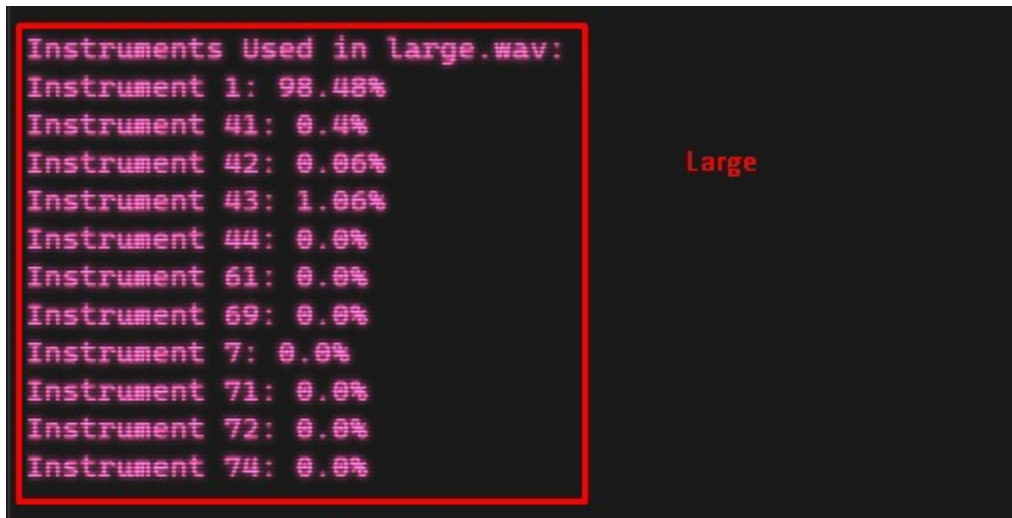
## Scenario 3: Music less than 30 seconds duration

Instruments Used in small.wav:

Instrument 1:	99.22%
Instrument 41:	0.21%
Instrument 42:	0.02%
Instrument 43:	0.55%
Instrument 44:	0.0%
Instrument 61:	0.0%
Instrument 69:	0.0%
Instrument 7:	0.0%
Instrument 71:	0.0%
Instrument 72:	0.0%
Instrument 74:	0.0%

Small

## Scenario 4: Music more than 20 minutes duration



Note: Scenario 2,3 and 4 were tested as outliers because currently the model has been trained only on classical audio files, which are at least 1 minute long and at most 17 minutes.