



Internal presentation wk8

Team Emo

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What have we done?

- Create different “simpler” models: SVM - Logistic Regression - MLP - KNN
- Split datasets physically into train, test and validation
- Data cleaning
- Data augmentation
- Pair programming



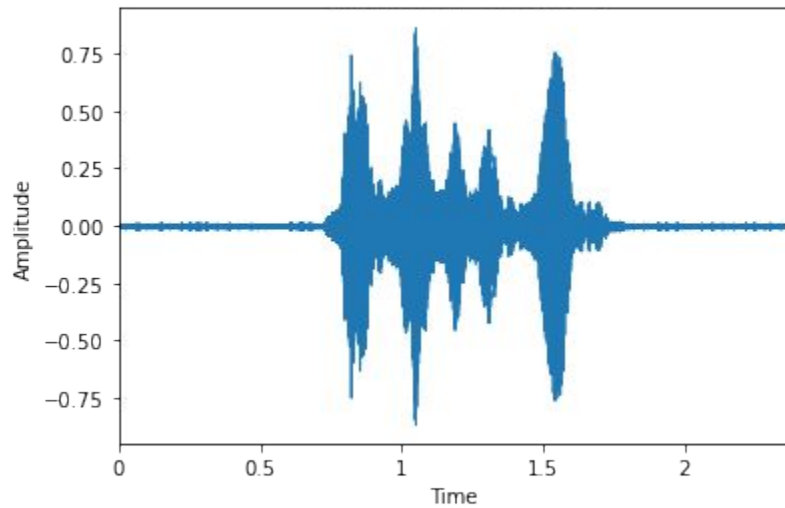


'Simpler' models results

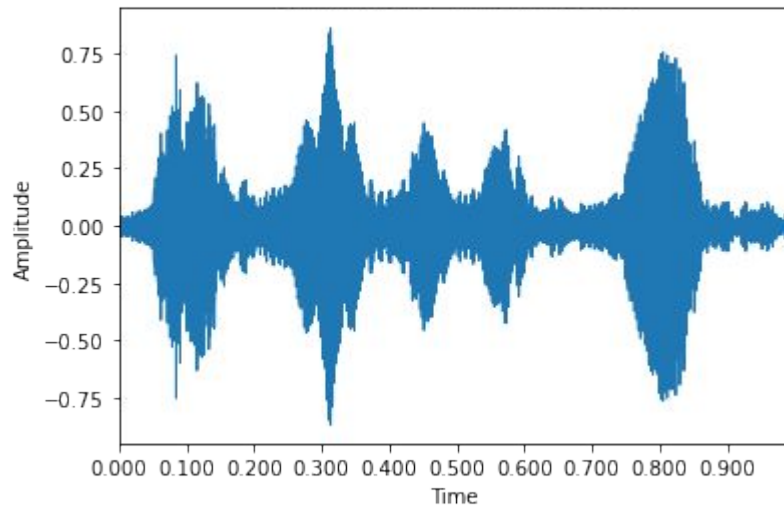
ML model	RAVDESS Accuracy	CREMA-D Accuracy
MLP	Train: 99% Test: 77%	Train: 87% Test: 53%
SVM	Train: 70% Test: 65%	Train: 54% Test: 50%
Logistic Regression	Train: 71% Test: 63%	Train: 54% Test: 51%
KNN	Train: 100% Test: 78.2%	Train: 99.9% Test: 49.4%

Cleaning

WAVEFORM - ORIGINAL



WAVEFORM - WITHOUT GAPS





Augmentation results

RAVDESS

```
train set | DONE PROCESSING DATA!!! | Duration: 9.389215  
Size: 1124  
  
test set | DONE PROCESSING DATA!!! | Duration: 3.258303  
Size: 372  
  
validate set | DONE PROCESSING DATA!!! | Duration: 3.329347  
Size: 388
```

RAVDESS Augmented

```
train set | DONE PROCESSING DATA!!! | Duration: 57.237242  
Size: 8992  
  
test set | DONE PROCESSING DATA!!! | Duration: 19.430340  
Size: 2976  
  
validate set | DONE PROCESSING DATA!!! | Duration: 20.066517  
Size: 3104
```

CREMA-D

```
train set | DONE PROCESSING DATA!!! | Duration: 13.571256  
Size: 4461  
  
test set | DONE PROCESSING DATA!!! | Duration: 4.786889  
Size: 1488  
  
validate set | DONE PROCESSING DATA!!! | Duration: 4.683996  
Size: 1493
```

CREMA-D Augmented

```
train set | DONE PROCESSING DATA!!! | Duration: 131.957648  
Size: 35688  
  
test set | DONE PROCESSING DATA!!! | Duration: 44.224786  
Size: 11904  
  
validate set | DONE PROCESSING DATA!!! | Duration: 44.690555  
Size: 11944
```



What were the challenges

- Lessons learned: Display results / issues only when you are sure.



What are we going to do this week?

- Learning Lab - SVM
- Define a research proposal (main question & sub questions)
- Come up with an evaluation method (research)
- Evaluate ML models