



ЭКСПЕРИМЕНТАЛЬНОЕ ИССЛЕДОВАНИЕ МЕТОДОВ РАСПОЗНАВАНИЯ ЭМОЦИЙ ДЛЯ НАБОРА ДАННЫХ SAVEE

ПОПОВА АНАСТАСИЯ

НИУ ВШЭ НН

2018

SAVEE DATABASE

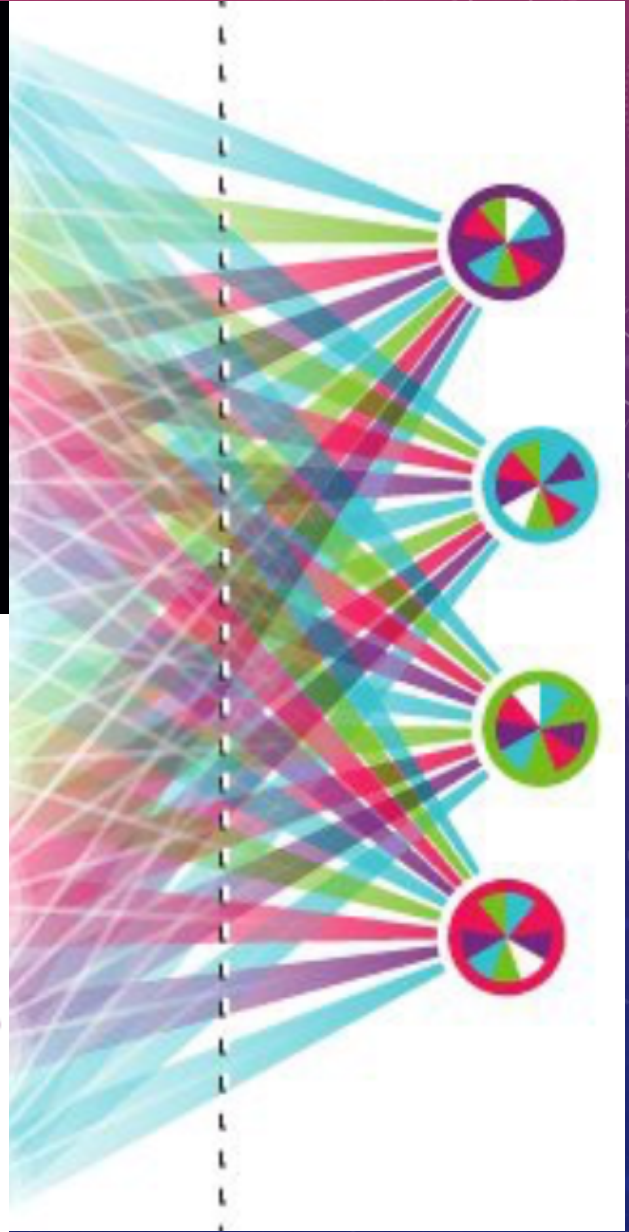
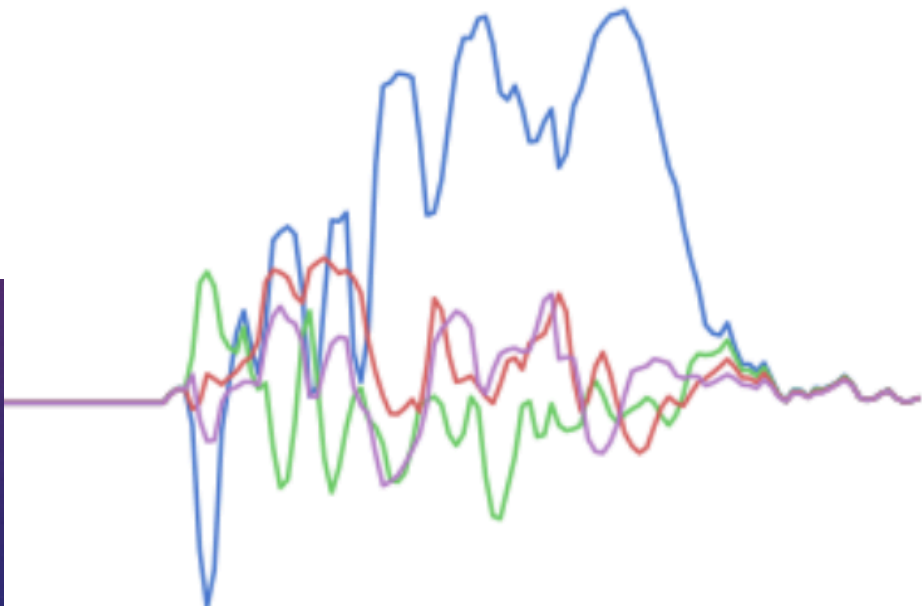
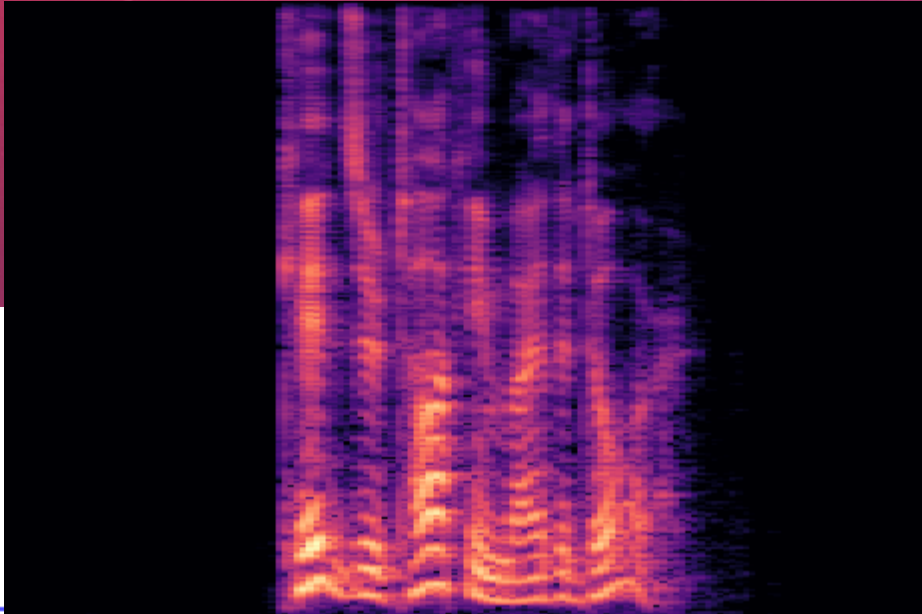
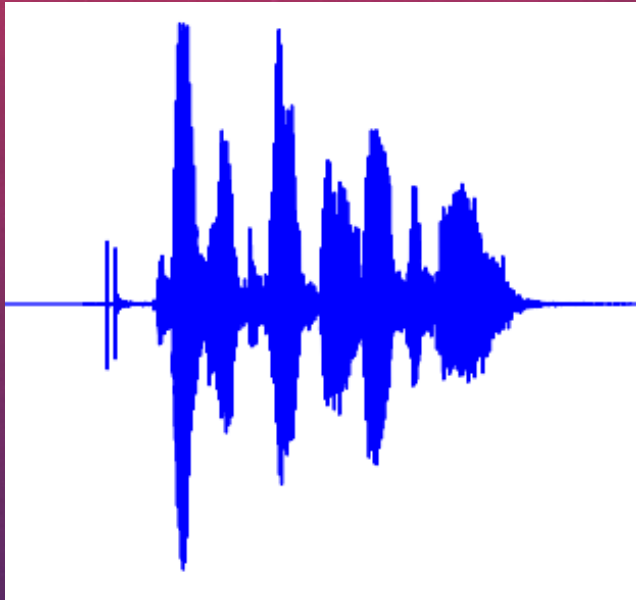
Name	
	DC
	JE
	JK
	KL
	Info.txt

Name	
	a01.wav
	a02.wav
	a03.wav
	a04.wav
	a05.wav
	a06.wav
	a07.wav
	a08.wav

- 4 male speakers
- 7 emotion categories (anger, disgust, fear, happiness, neutral, sadness, surprise)
- 15 sentences for each emotion

<http://kahlan.eps.surrey.ac.uk/savee/Download.html>

FEATURES



EXPERIMENTS (TEST ACCURACY)

Random choice
14.28

Mobilenet v01	Mobilenet v02
34.3	27.65

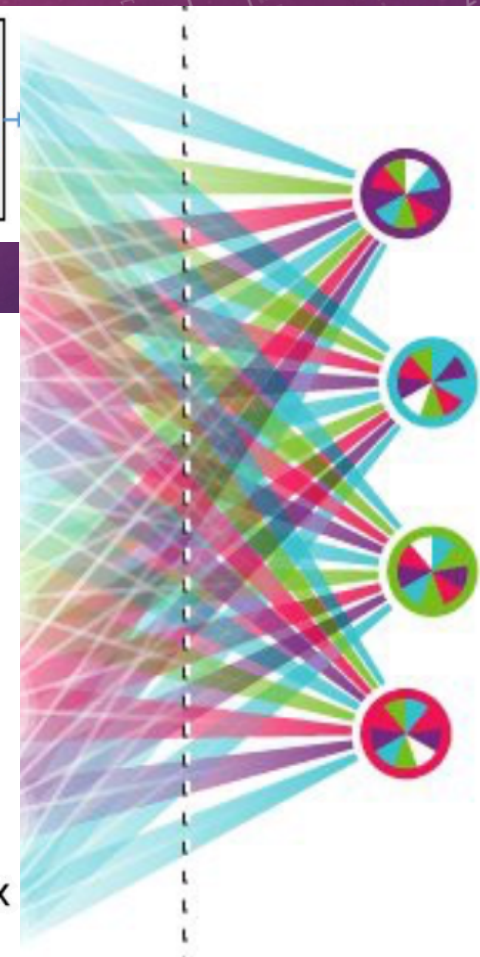
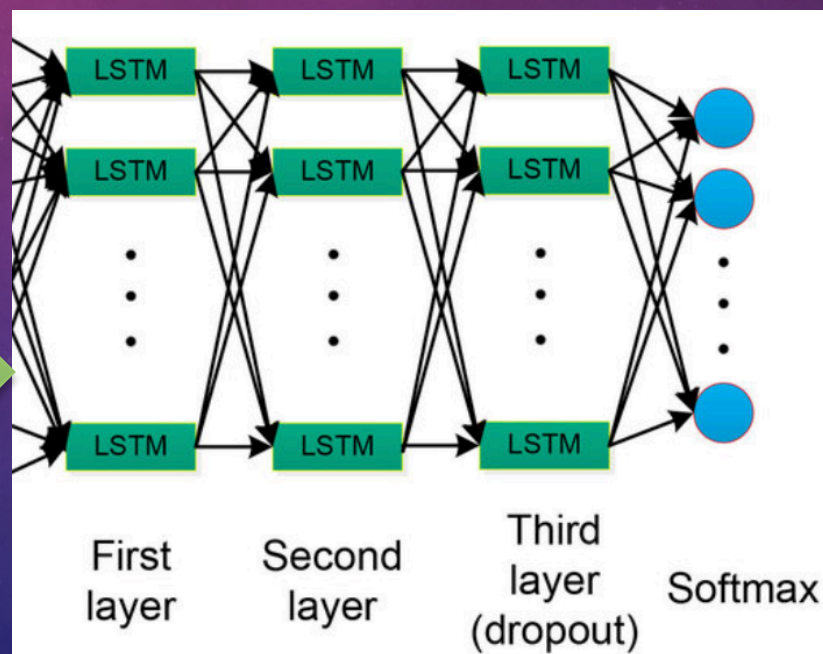
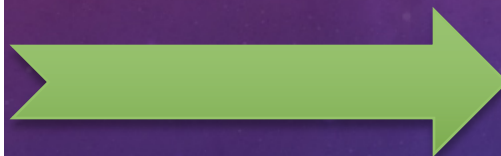
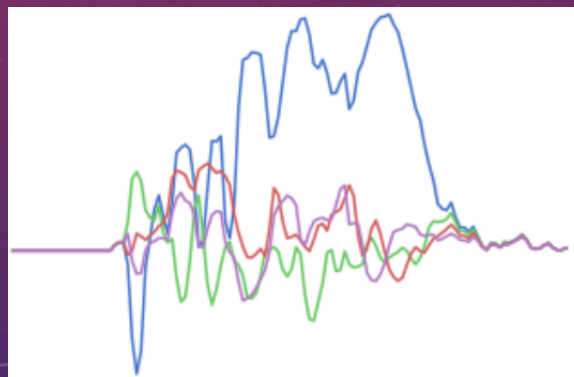
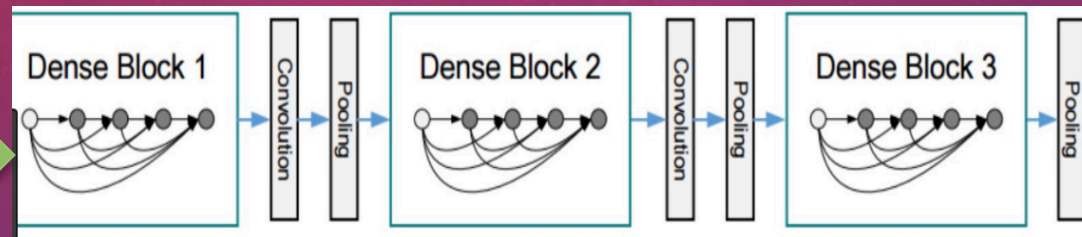
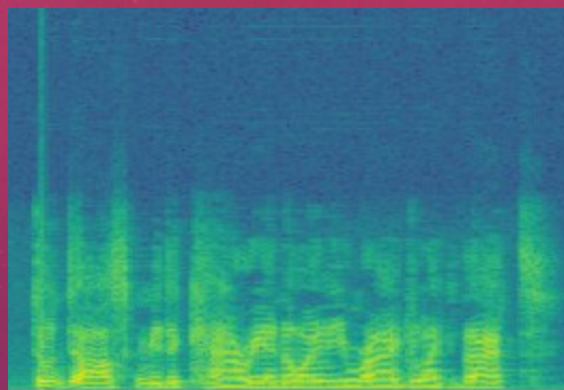
	1 MFCC	2 MFCC	3 MFCC	5 MFCC	10 MFCC	15 MFCC
LSTM 2	27.9	30.4	30.0	26.5	27.8	27.3
LSTM 3	32.1	32.5	34.2	32.8	33.1	31.8
LSTM 5	31.9.	32.6	32.5	32.5	29.8	29.9

resnet18	resnet34	resnet50	resnet101	resnet151
54.7	47.62	55.95	47.62	47.6

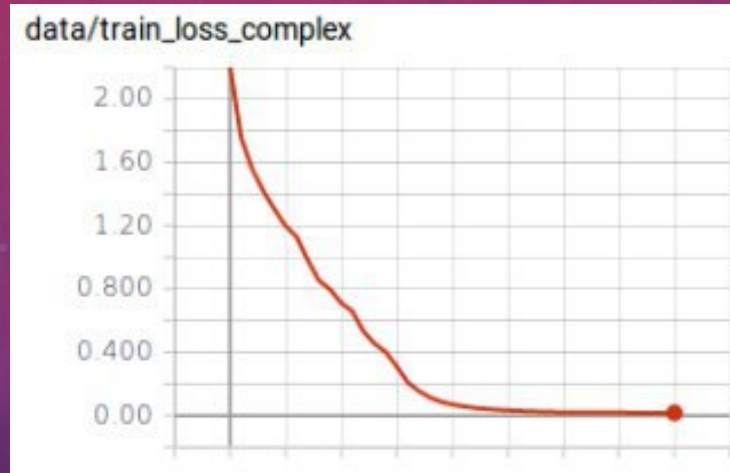
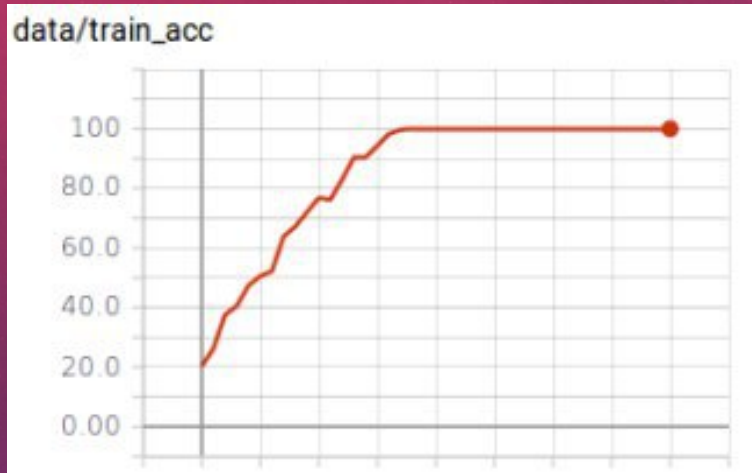
vgg11	vgg16	vgg19	densenet121	densenet161	densenet201
25.0	31.6	34.0	68.12	67.86	67.85

Densenet121 + LSTM 1	Densenet121 + LSTM 2	Densenet121 + LSTM 3
67.3	68.2	69.37

BEST APPROACH (DENSECET121 + LSTM 3)



DENSENET121 + LSTM 3



CONFUSION MATRIX

0 – Anger

1 – Disgust

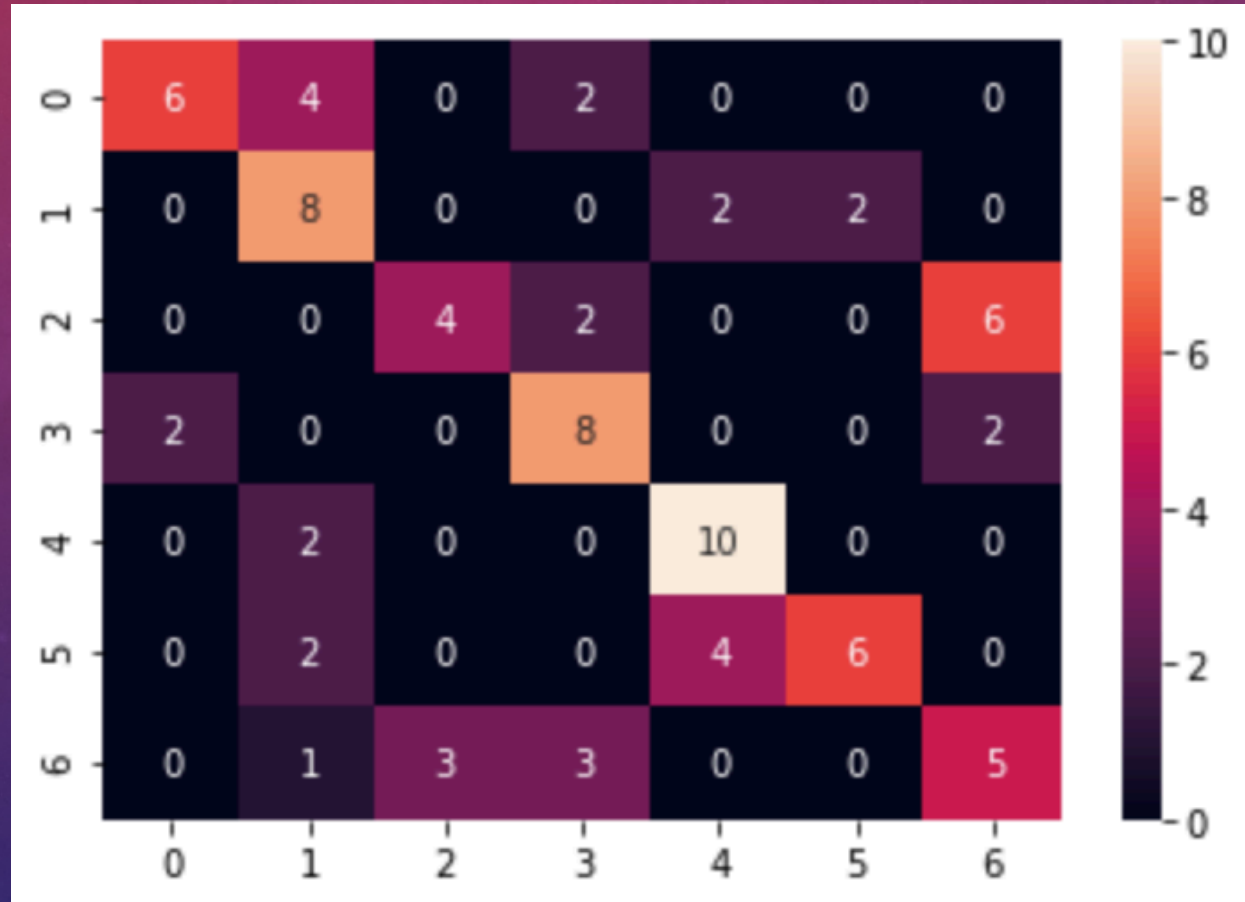
2 - Fear

3 – Happiness

4 - Neutral

5 - Sadness

6 - Surprise





DONE!

**THANK YOU FOR YOUR
ATTENTION!**