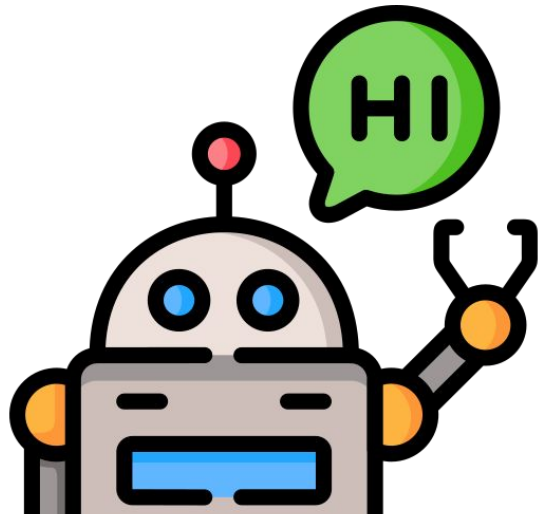


HI <BOT>

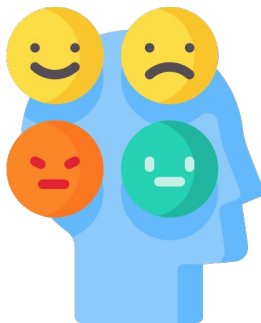


Specially for IV ICT Hack 2022

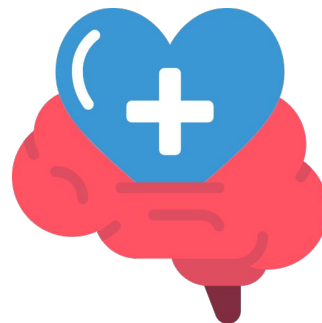
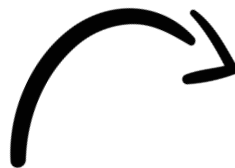
TASK REALIZING



Personal notebook



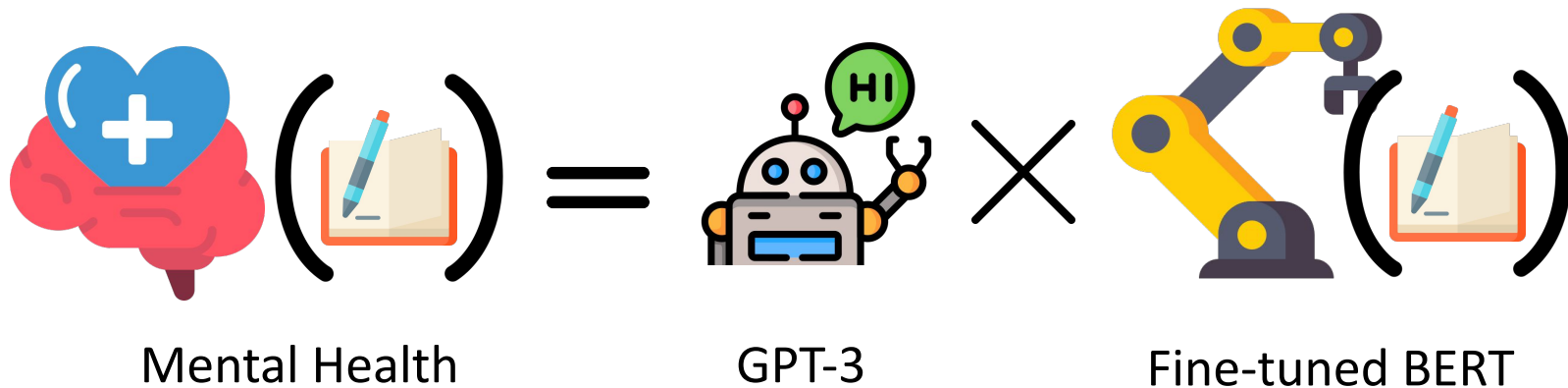
Emotion recognition



Mental help



FORMULA



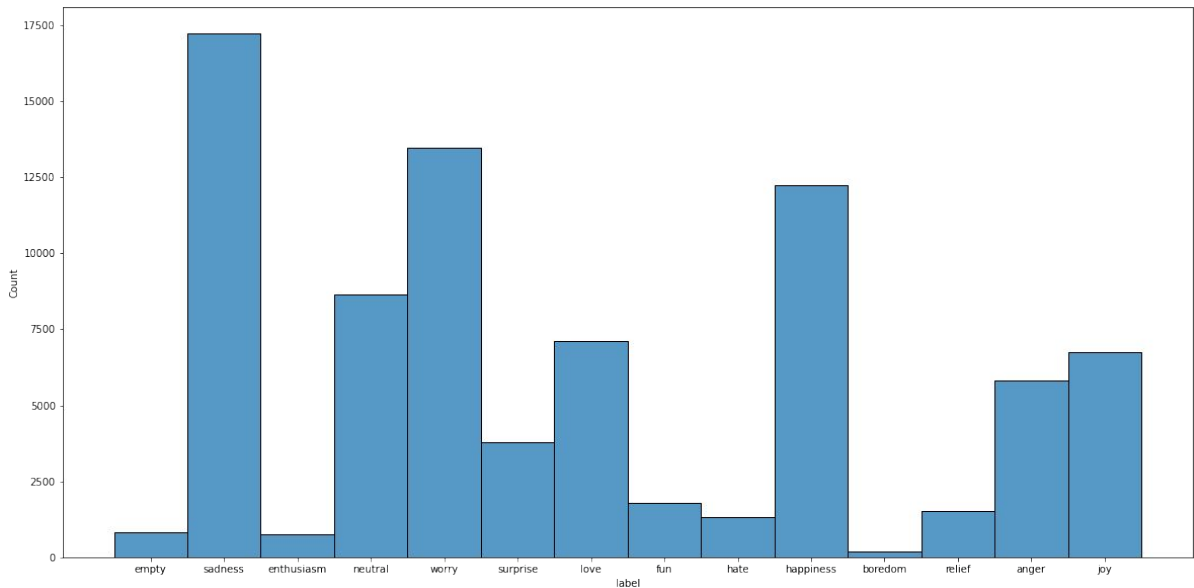
PLAN

- 1) Collect data
- 2) Build baselines
- 3) Build NN
- 4) Telegram-Bot
- 5) Extra «features»

PLAN

- 1) Collect data
- 2) Build baselines
- 3) Build NN
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Data distribution



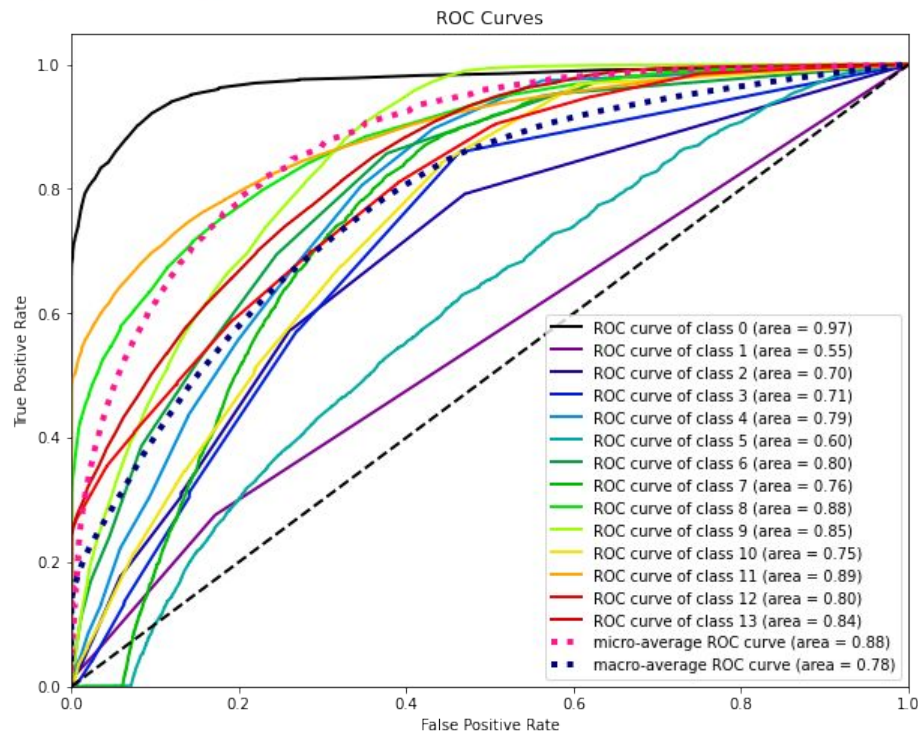
	text	label
0	@tiffanylue i know i was listenin to bad habi...	empty
1	Layin n bed with a headache ughhhh...waitin o...	sadness
2	Funeral ceremony...gloomy friday...	sadness

PLAN

- 1) Collect data
- 2) **Build baselines**
- 3) Build NN
- 4) Telegram-Bot
- 5) Extra «features»

RandomForest Baseline

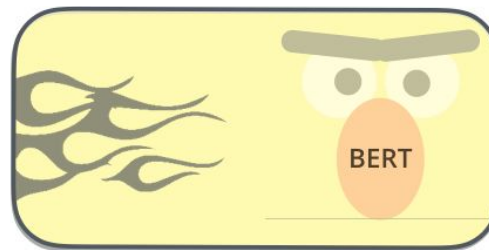
accuracy			0.44	24438
macro avg	0.30	0.25	0.25	24438
weighted avg	0.44	0.44	0.42	24438



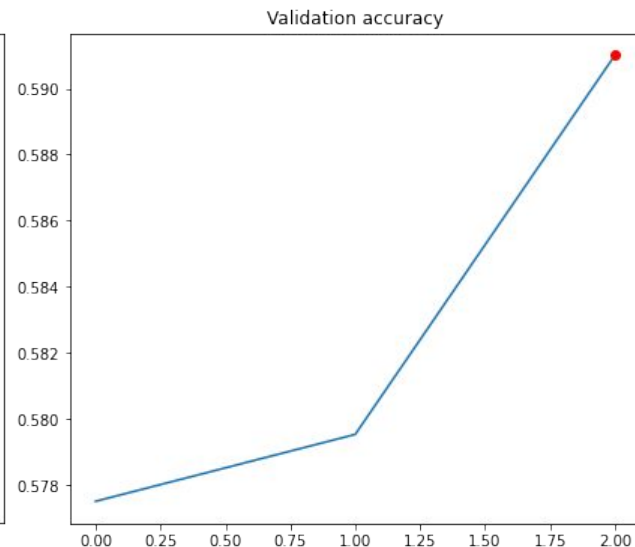
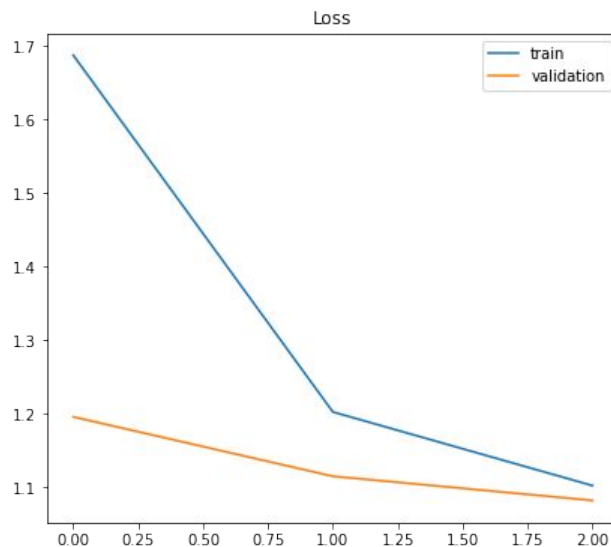
PLAN

- 1) Collect data
- 2) Build baselines
- 3) Build NN**
- 4) Telegram-Bot
- 5) Extra «features»

BERT fine-tuning



Max accuracy score: 0.59 at 3 epoch

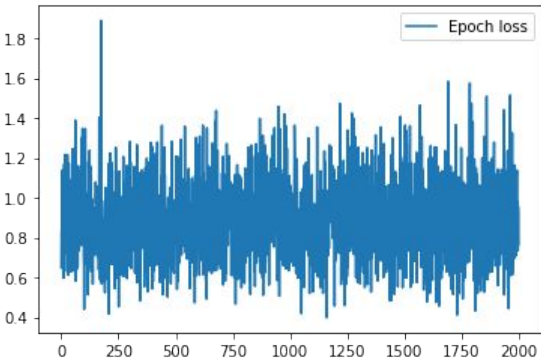


Oooops...

Problems

- 1) Collect data
- 2) Build baselines
- 3) Build NN
- 4) ***data leakage and underfitting***
- 5) Telegram-Bot
- 6) Extra «features»

Underfitted
model



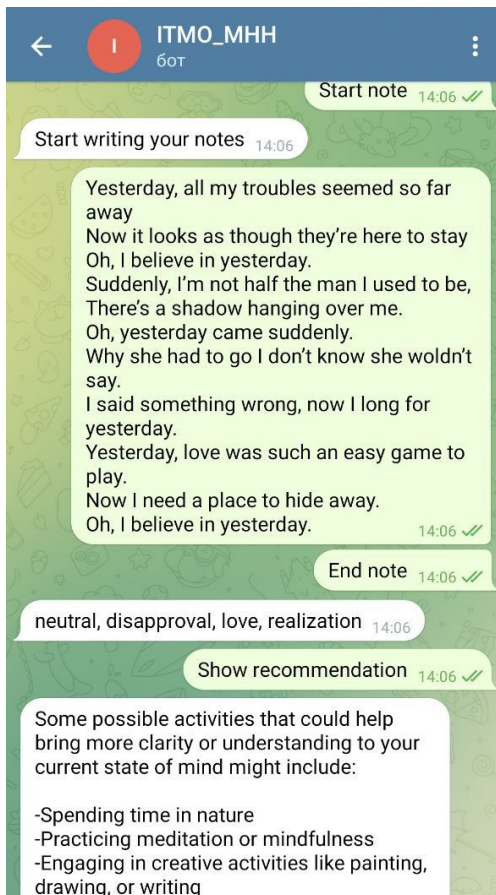
Epoch	Training Loss	Validation Loss	Accuracy Thresh
1	0.126200	0.113293	0.961871
2	0.110000	0.110863	0.962302
3	0.105500	0.110903	0.962024

Data leakage

Epoch	Training Loss	Validation Loss	F1	Roc Auc	Accuracy
1	0.108000	0.118481	0.568065	0.737021	0.442854
2	0.108100	0.118481	0.568065	0.737021	0.442854

PLAN

- 1) Collect data
- 2) Build baselines
- 3) Build NN
- 4) **Telegram-Bot**
- 5) Extra «features»



Dialogs

Hugging Face

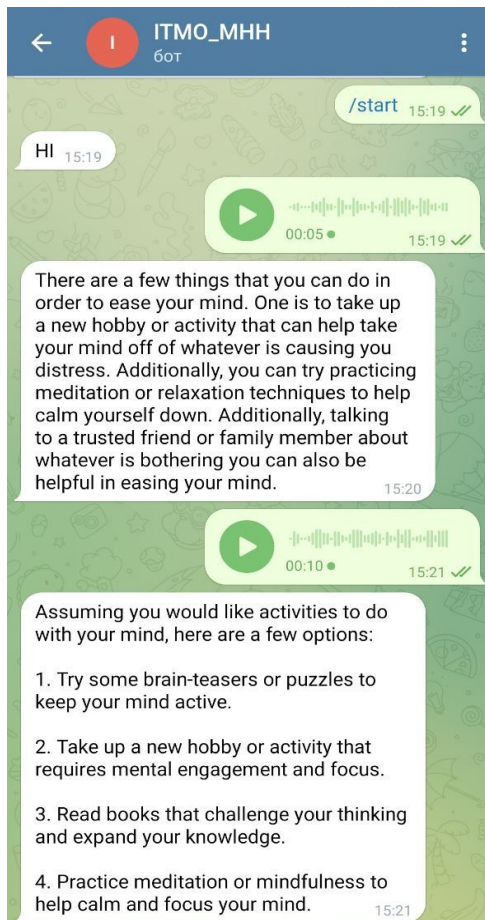


Open AI

GPT-3

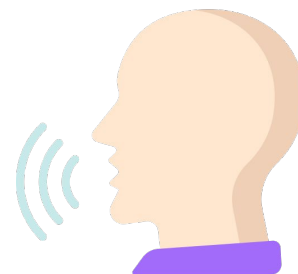
PLAN

- 1) Collect data
- 2) Build baselines
- 3) Build NN
- 4) Telegram-Bot
- 5) Extra «features»



Speech Recognition

«Facebook wav2vec»

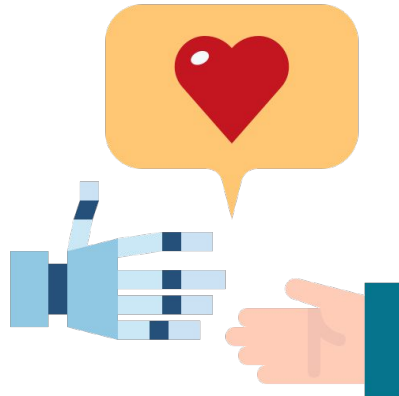


OUTCOME

Try it yourself
right now!

Usability:

- 1) Condition tracing
- 2) Personal psychologist
- 3) Emotion test



@ITMO_MHH_BOT

THANKS FOR YOUR ATTENTION

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George Zavarzin K33212

Perov Ivan K33202

