Project Keyword Search

Team

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Contents

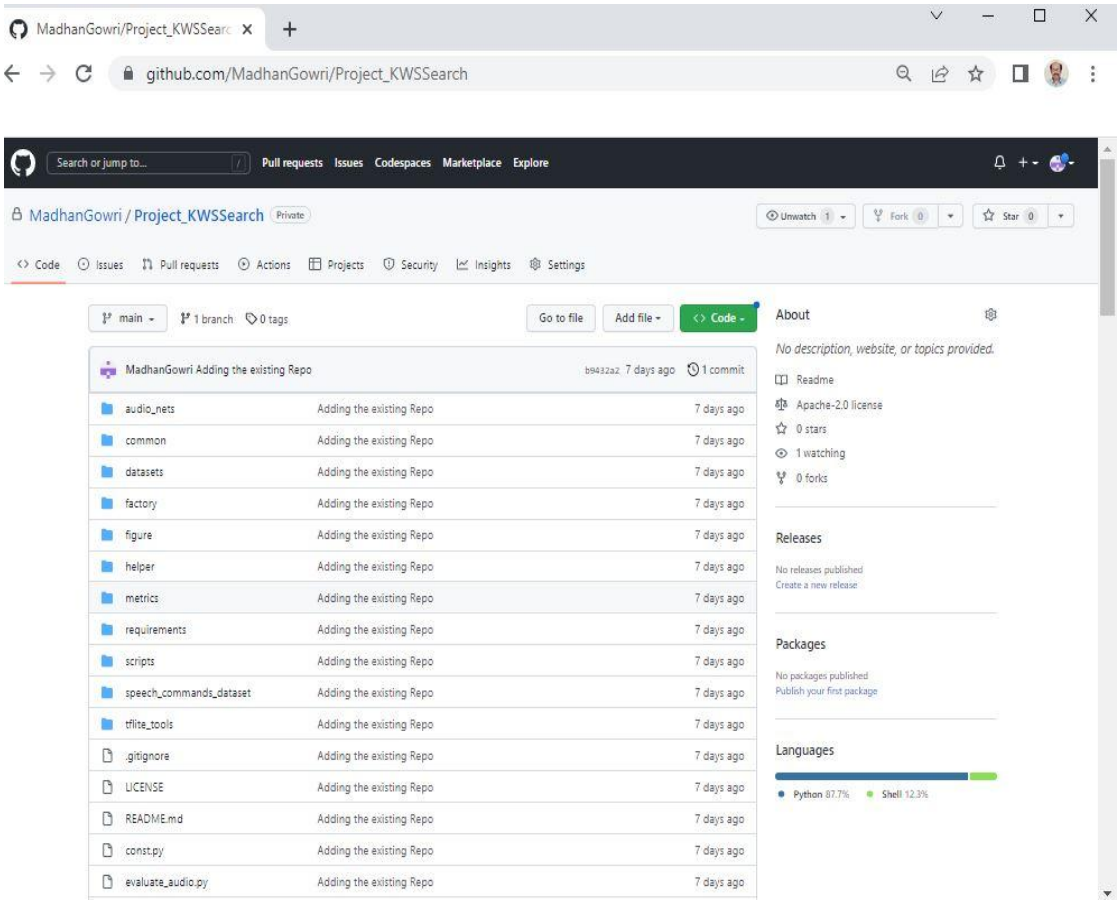
Title :

Spoken keyword spotting (KWS) deals with the identification of keywords in audio streams in low latency or in real time

Git hub link:

github.com/MadhanGowri/Project_KWSSearch

Repo Structure:



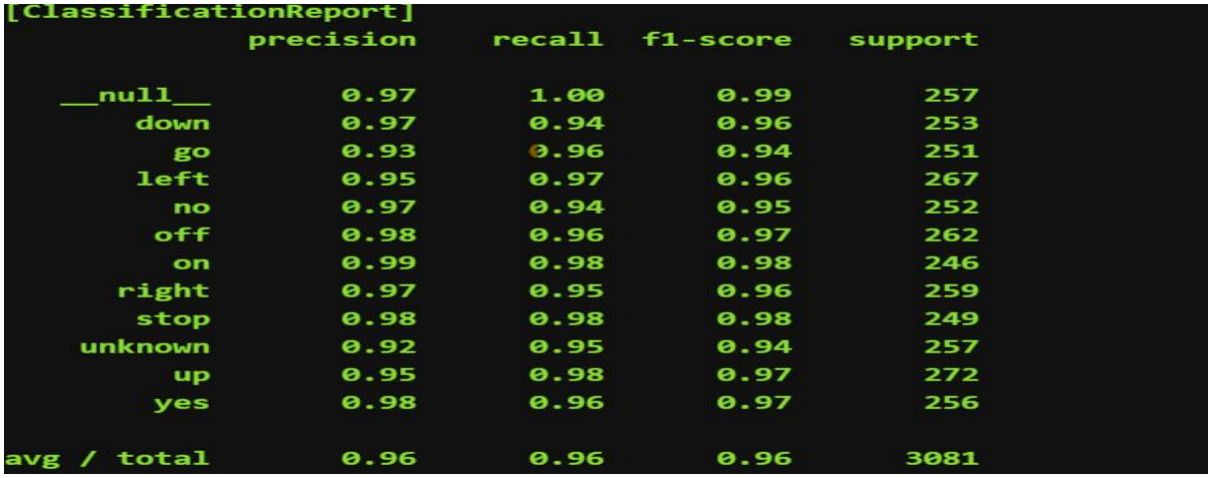
Data set :

Google Speech Commands Dataset .The dataset contains 64,727 one-second-long utterance files which are recorded and labeled with one of 30 target categories.

[Google Speech Commands Dataset]

[speech_commands_dataset/]

Training performance :



[ClassificationReport]

	precision	recall	f1-score	support
__null__	0.97	1.00	0.99	257
down	0.97	0.94	0.96	253
go	0.93	0.96	0.94	251
left	0.95	0.97	0.96	267
no	0.97	0.94	0.95	252
off	0.98	0.96	0.97	262
on	0.99	0.98	0.98	246
right	0.97	0.95	0.96	259
stop	0.98	0.98	0.98	249
unknown	0.92	0.95	0.94	257
up	0.95	0.98	0.97	272
yes	0.98	0.96	0.97	256
avg / total	0.96	0.96	0.96	3081

Conclusion and further scope :

- Model compression and quantization using tflite /Android
- Model implementation on Android device for Inference
- Model implementation on low footprint DSP for Inference