


#1 1DConv(16-32) batch 512 

Neural Network settings

Training settings

Number of training cycles ?

200

Learning rate ?

0.005

Minimum confidence rating ?

0.60

Audio training options

Data augmentation ?

Neural network architecture

Architecture presets ? 1D Convolutional (Default) 2D Convolutional

Input layer (624 features)

Reshape layer (13 columns)

1D conv / pool layer (8 neurons, 3 kernel size, 1 layer)

Dropout (rate 0.25)

1D conv / pool layer (16 neurons, 3 kernel size, 1 layer)

Dropout (rate 0.25)

Flatten layer

Add an extra layer

Output layer (15 features)

Start training

Training output

1 of 2

4/21/21, 18:41

Model

Model version: Quantized (int8)

Last training performance (validation set)

%

ACCURACY

61.8%

LOSS

1.25

Confusion matrix (validation set)

	_NOI	_UN	BAC	DOWN	FOR	GO	LEFT	NO	OFF	ON	RIGHT	STOP	UP	VISU	YES
_NOISE	97.1%	0.8%	0.4%	0%	0%	0%	0.4%	0%	0%	0%	0.4%	0.4%	0%	0%	0.4%
_UNKNOWN	7.9%	33.2%	5.2%	3.1%	6.1%	2.2%	6.1%	0.9%	6.1%	6.1%	3.9%	5.2%	4.4%	5.7%	3.9%
BACKWARD	7.4%	2.5%	74.8%	0.8%	0.8%	0%	3.7%	0.4%	0.8%	0%	0.4%	1.7%	4.1%	1.7%	0.8%
DOWN	2.4%	4.5%	1.2%	63.6%	0%	2.8%	4.0%	5.7%	0.4%	2.0%	0.8%	2.8%	6.9%	0.8%	2.0%
FORWARD	2.2%	5.9%	8.1%	0.7%	58.5%	3.0%	1.1%	0%	6.7%	10.4%	0.7%	0%	1.5%	0.4%	0.7%
GO	5.3%	5.3%	1.6%	21.4%	3.3%	30.0%	2.5%	7.4%	7.4%	1.2%	0.4%	7.8%	5.3%	0%	0.8%
LEFT	7.6%	3.4%	2.5%	0%	0%	0%	70.6%	0%	0.8%	0%	1.3%	0.4%	2.1%	1.3%	10.1%
NO	4.7%	3.0%	1.7%	20.3%	0.9%	12.1%	3.9%	44.0%	0.4%	0.4%	0.9%	0.9%	1.7%	1.7%	3.4%
OFF	3.7%	1.4%	1.4%	1.4%	1.4%	0.9%	3.7%	0%	54.7%	2.8%	0%	1.9%	26.6%	0%	0%
ON	2.6%	3.9%	4.3%	0.9%	3.5%	0.9%	0.4%	0%	11.7%	60.9%	0%	1.7%	8.7%	0%	0.4%
RIGHT	4.1%	8.3%	1.2%	0.8%	0.4%	0.8%	13.7%	0%	1.2%	1.2%	66.0%	0%	1.2%	0%	0.8%
STOP	6.3%	1.8%	0.9%	4.5%	0.5%	0.5%	1.8%	0%	6.8%	0%	0%	53.8%	22.6%	0%	0.5%
UP	5.1%	0.4%	0.8%	0.8%	0%	0%	1.2%	0%	11.0%	0.8%	0%	3.5%	76.4%	0%	0%
VISUAL	5.9%	16.3%	1.7%	0.4%	0.4%	0.4%	1.7%	0%	0%	0%	0.4%	1.3%	0%	69.9%	1.7%
YES	5.9%	4.3%	0.8%	0.4%	0%	0%	17.6%	0.4%	0%	0%	0%	0.4%	0%	0.8%	69.5%
F1 SCORE	0.73	0.33	0.72	0.59	0.68	0.39	0.60	0.55	0.51	0.65	0.75	0.58	0.61	0.77	0.72

Feature explorer (full training set)

The feature explorer is only supported when you have a single DSP block.

On-device performance

INFERRING TIME

4 ms.

PEAK RAM USAGE

5.2K

ROM USAGE

38.3K