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MobileNetV2 (2019)

Google.

MobileNetV2

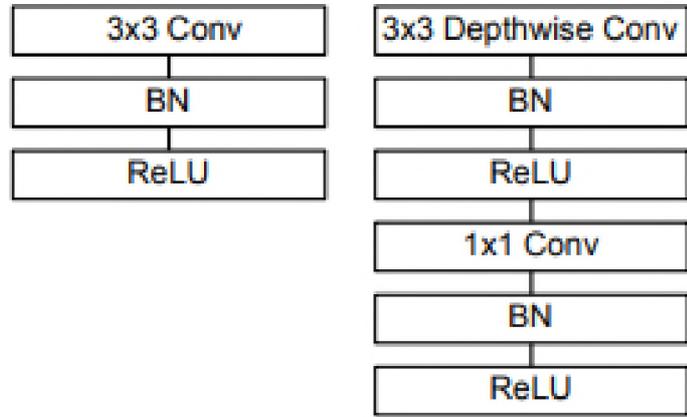
(, Raspberry PI).

MobileNets

¹ L. Xu E. Oja. «Randomized Hough transform (RHT): basic mechanisms, algorithms, and computational complexities.» CVGIP: Image Understanding, t. 57, 2, pp. 131-154, 1993.

² / - . : , 2019. - 224 c.

³ . : , : / - . : , 2019. - 232 c.



1 MobileNet MobileNetV2

MobileNet. Xception, VGG16, 1.

		Top-1 accuracy
Xception	22.91M	0.790
VGG16	138.35M	0.715
MobileNetV1 (alpha=1, rho=1)	4.20M	0.709
MobileNetV1 (alpha=0.75, rho=0.85)	2.59M	0.672
MobileNetV1 (alpha=0.25, rho=0.57)	0.47M	0.415
MobileNetV2 (alpha=1.4, rho=1)	6.06M	0.750
MobileNetV2 (alpha=1, rho=1)	3.47M	0.718
MobileNetV2 (alpha=0.35, rho=0.43)	1.66M	0.455

accuracy, VGG16,

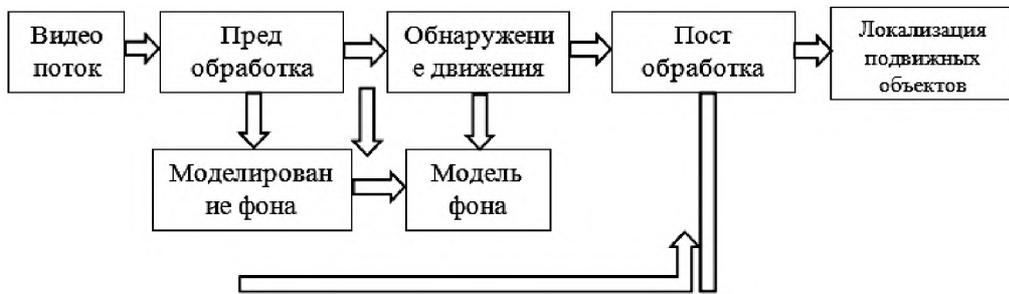
(Randomized Circle Detection - RCD) -

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 RCD 5. . -
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 - 850 ± 20 . -
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 NVIDIA Jetson 1 -
 (NVidia Kepler 192- -
 CUDA. 2). -
 10 1 3 [7]. -
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	, %		
	1	1-2	2-3
	97,6	98,9	99,0
	100	100	100
	2,40	1,07	1,98
	0	0	0
	98	93	101

. 2.



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1. L. Xu E. Oja. «Randomized Hough transform (RHT): basic mechanisms, algorithms, and computational complexities.» CVGIP: Image Understanding, t. 57, 2, pp. 131-154, 1993.

2. / . . . - . : , 2019. - 224 c.

3. / . . . - . : , 2019. - 232 c.

4. [- URL: https://storage.tusur.ru/files/11309/ - 1402_ - .

5. // . « +», 2017. 241-245 .

6. [- URL: https://ru.bmstu.wiki/ —

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1 • • // . « +», 2017. 241-245