

face-detection-adas-binary-0001

Use Case and High-Level Description

Example

Face detector for driver monitoring and similar scenarios. The network features a $prl_{Performance}$ includes depth-wise convolutions to reduce the amount of computation for the 3x3 $\rm c_{Inputs}$ 1x1 convolutions are binary that can be implemented using effective binary XNOR+F_{Outputs}

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Specification



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✓ Intel Pre-Trained Models

Object Detection Models

faster-rcnn-resnet101-cocosparse-60-0001

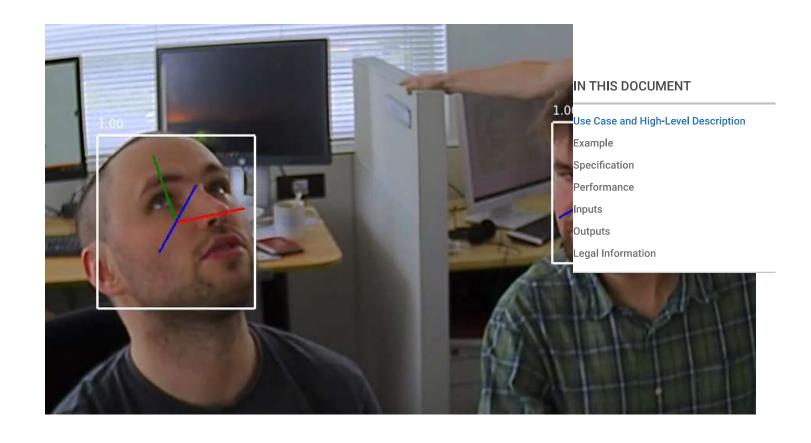
face-detection-adas-0001

face-detection-adas-binary-0001

face-detection-retail-0004

face-detection-retail-0005

face-detection-0100



Specification

METRIC

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sparse-60-0001

faster-rcnn-resnet101-coco-

face-detection-adas-0001

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face-detection-retail-0005

face-detection-0100

AP (head height >10px)	31.2%	
AP (head height >32px)	76.2%	
AP (head height >64px)	90.3%	
AP (head height >100px)	91.9%	IN THIS DOCUMENT
Min head size	90x90 pixels on 108	80p Use Case and High-Level Description Example
GFlops	0.611	Specification Performance
Gl1ops	2.224	Inputs Outputs Legal Information
MParams	1.053	
Source framework	PyTorch*	

METRIC

VALUE

Average Precision (AP) is defined as an area under the <u>precision/recall</u> curve. Numbers are on Wider Face validation subset.

Performance

Inputs

Name: input, shape: [1x3x384x672] - An input image in the format [BxCxHxW], where:

- B batch size
- C number of channels
- H image height
- W image width

Expected color order is BGR.

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Outputs

The net outputs blob with shape: [1, 1, N, 7], where N is the number of detected bounding boxes. Each detection has the format $[image_id, label, conf, x_min, y_min, x_max, y_max]$, where:

- image_id ID of the image in the batch
- label predicted class ID
- conf confidence for the predicted class
- (x_min, y_min) coordinates of the top left bounding box corner
- (x_max, y_max) coordinates of the bottom right bounding box corner.

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[*] Other names and brands may be claimed as the property of others.

The NET was tuned from face-detection-adas-0001 weights

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