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computer vision, machine learning

Bogdan Vulpescu



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Install the Intel® Distribution of OpenVINO™ toolkit with FPGA Support

By [Deanne Deuermeyer \(Intel\)](#), [Andrey Z. \(Intel\)](#), [AMY R. \(Intel\)](#), [Fritz B. \(Intel\)](#), published on May 8, 2018, updated November 14, 2018 [Translate](#) 

Introduction

The Intel® Distribution of OpenVINO™ toolkit quickly deploys applications and solutions that emulate human vision. Based on Convolutional Neural Networks (CNN), the toolkit extends computer vision (CV) workloads across Intel® hardware, maximizing performance. The Intel Distribution of OpenVINO toolkit includes the Intel® Deep Learning Deployment Toolkit (Intel® DLDT).

The Intel Distribution of OpenVINO toolkit for Linux* with FPGA Support:

- Enables CNN-based deep learning inference on the edge
- Supports heterogeneous execution across Intel® CPU, Intel® Integrated Graphics, Intel® FPGA, Intel® Movidius™ Neural Compute Stick and Intel® Neural Compute Stick 2
- Speeds time-to-market via an easy-to-use library of computer vision functions and pre-optimized kernels
- Includes optimized calls for computer vision standards including OpenCV*, OpenCL™, and OpenVX*

Detection results

Time for processing 1 stream (nireq = 1) : 117.58 ms (8.50 fps)
Vehicle detection time (MYRIAD) : 98.53 ms (10.15 fps)
Vehicle Attribs-time (MYRIAD, averaged over 1 detections) : 15.32 ms (65.26 fps)
LPR time (MYRIAD, averaged over 1 detections) : 13.82 ms (72.38 fps)

**black
car**



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