

SOLUTION BRIEF

Intel® DevCloud for the Edge



Faster Prototyping of State-of-the-Art Vision Applications

AnyVision's expert AI designers test multiple hardware platforms in parallel, saving time and reducing development costs, using Intel® DevCloud for the Edge

“Because we serve customers with so many different needs, it’s important to quickly achieve the right balance of price and performance for each of our applications. Intel® DevCloud for the Edge lets us do this by testing multiple platforms in parallel.

“Specifically, we wanted to find the lowest-priced CPU that could effectively handle one of our AI security applications. After just a few hours of testing our applications on the platform, our R&D team found the right CPU. It would have normally taken weeks to get the right hardware ordered and tested in our labs. That’s a lot of time savings—and time is money—so it’s a no-brainer.”

— Eduard Vazquez,
Research Technical Manager,
AnyVision

From face, body, and object recognition to real-world analytics to authentication processes, AnyVision's expert AI designers create deep learning algorithms for some of the world's most cutting-edge recognition platforms. The company builds its proprietary neural networks from scratch and designs them to be lightweight and fast, so they deliver real-time results.

Because models run in a wide variety of environments—retail stores, smart cities, factories, and entertainment hubs to name a few—they need to be able to perform at their best on different types of hardware, in varying conditions. However, testing algorithms on physical hardware takes time and adds to development costs. Hardware must be ordered, set up, and configured for testing before benchmarking can even take place. That problem is multiplied for AnyVision, a company that serves a large number of customers with a wide range of vision applications.

A cloud-based sandbox for prototyping

Intel® DevCloud for the Edge is a cloud-based development sandbox that lets developers build, test, and run their workloads on the latest Intel hardware and software. It includes access to Intel-optimized frameworks, tools, and libraries, so developers can get the best performance that Intel® hardware can offer.

AnyVision used Intel DevCloud for the Edge to benchmark its algorithms—including those for facial detection and pedestrian detection and reidentification—for latency and performance on 2nd Generation Intel® Xeon® Scalable processors. The team achieved up to 2x faster performance by taking advantage of Intel® Deep Learning Boost, a platform feature specially designed to enhance inference.¹ The sandbox was easy to use, taking developers only a couple of hours to set up and start testing their models.

To further optimize their model for the Intel Xeon Scalable platform, AnyVision developers used the Intel® Distribution of OpenVINO™ toolkit, one of the frameworks available through Intel DevCloud for the Edge. In future deployments, OpenVINO will make it easy for them to scale the same model across other hardware types, including a range of CPUs, GPUs, VPUs (vision processing units), and FPGAs.

Improving the development process

Moving forward, AnyVision plans to continue using Intel DevCloud for the Edge to prototype and benchmark their algorithms across Intel® Xeon® CPUs, Intel® Movidius™ VPUs, and Intel® FPGAs. This exercise will help them quickly identify which compute type and configurations will deliver the best performance at the most affordable cost, resulting in solutions that optimize price, power consumption, and footprint.

Learn more about the Intel® DevCloud for the Edge at software.intel.com/en-us/devcloud.

About AnyVision

AnyVision is a leading developer of face, body, and object recognition platforms. AnyVision's solutions are built to function on any sensor, with any resolution, and are proven to operate in real-time and real-world scenarios.

Learn more at anyvision.co.



1. In an internal test, AnyVision saw 2x inference runtime performance improvement on INT8 compared to FP32 precision of the same model on an Intel® Xeon® CPU with Intel® Deep Learning Boost support.

For more complete information about performance and benchmark results, visit intel.com/benchmarks.

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