

Retina Software

Deep Learning Visual Inspection

State-of-the-art set of deep learning tools accessible to non-AI experts when conventional software fails

Automatize visual inspection to improve productivity and quality 24/7



Fast – millisecond inspections, quick training

Ready – deploy within minutes

Reliable – get the same result everyday

Robust – immune to natural variations

Intuitive – only few parameters, no fine tuning

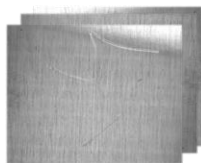
Flexible - compatible with most vision framework. Runs on PC & Embedded Nvidia Jetson.

Secure - computing on your machine, your images are not sent over the Internet

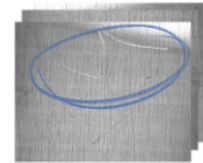
Efficient - optimized for small sets of images

A cost-efficient solution that brings the power of neuronal networks to everyone

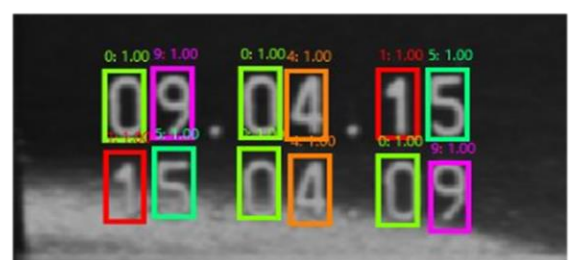
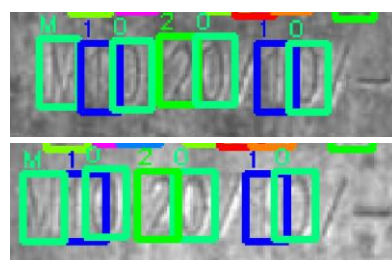
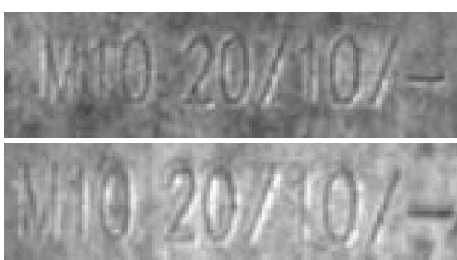
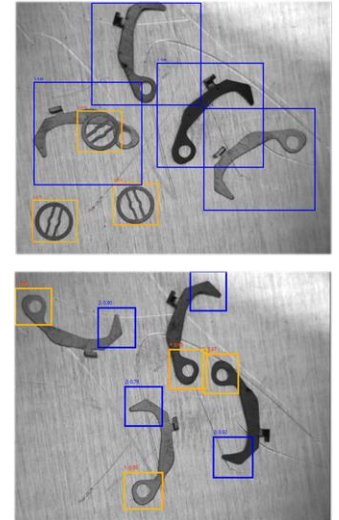
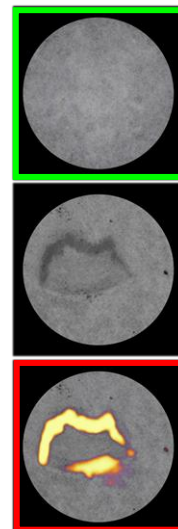
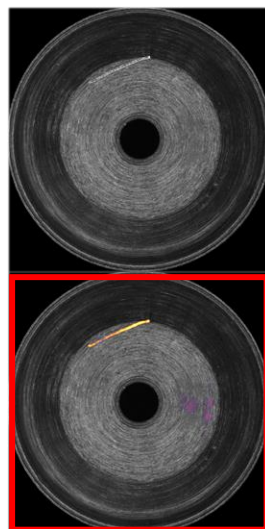
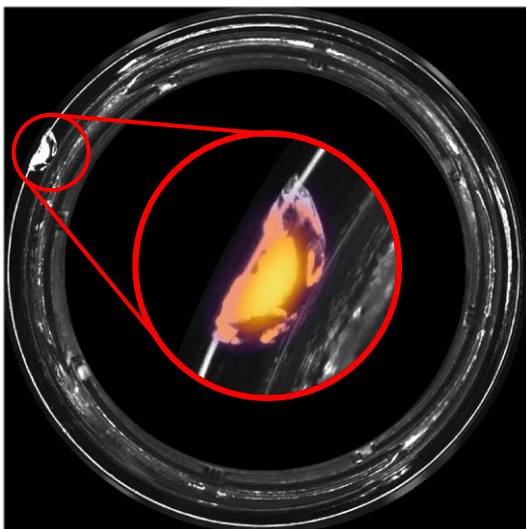
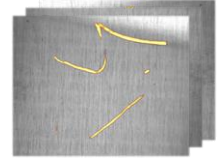
1. Collect images



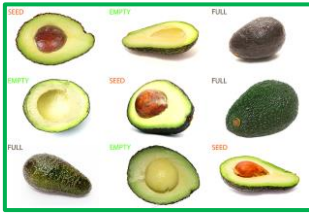
2. Label & train



3. Get results

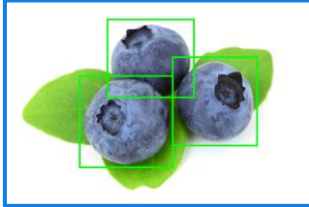


Tools Flavors



AVOCADO - Image classifier

- object sorting
- defect class discrimination



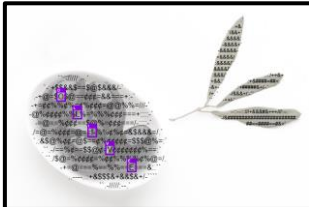
BLUEBERRY - Multi-classes locator

- sorting, presence, absence
- localization for pick & place



CHERRY - Pixel-level defect detection

- aesthetic, surface scratches, cracks
- sealing, anomaly on complex background



OLIVE – OCR & OCV

- laser & inkjet dot-character recognition
- reading on challenging backgrounds



Licenses

- Retina Training
- Retina Runtime

Compatibility

C#/C++ runtime library compatible with:



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Specifications

Typical training time	5 minutes with 20 images*
Typical runtime	<50 ms/image*
Image max resolution	50+ MPix
Typical number of training images	20 images
Required hardware	CUDA compatible graphic card, min 8GB Cuda RAM
Recommended hardware	RTX20*, RTX30* series, QUADRO series, Nvidia Jetson

* Measured using an RTX3060 and 1MPix images. Performance depends on the number of CUDA cores and memory.