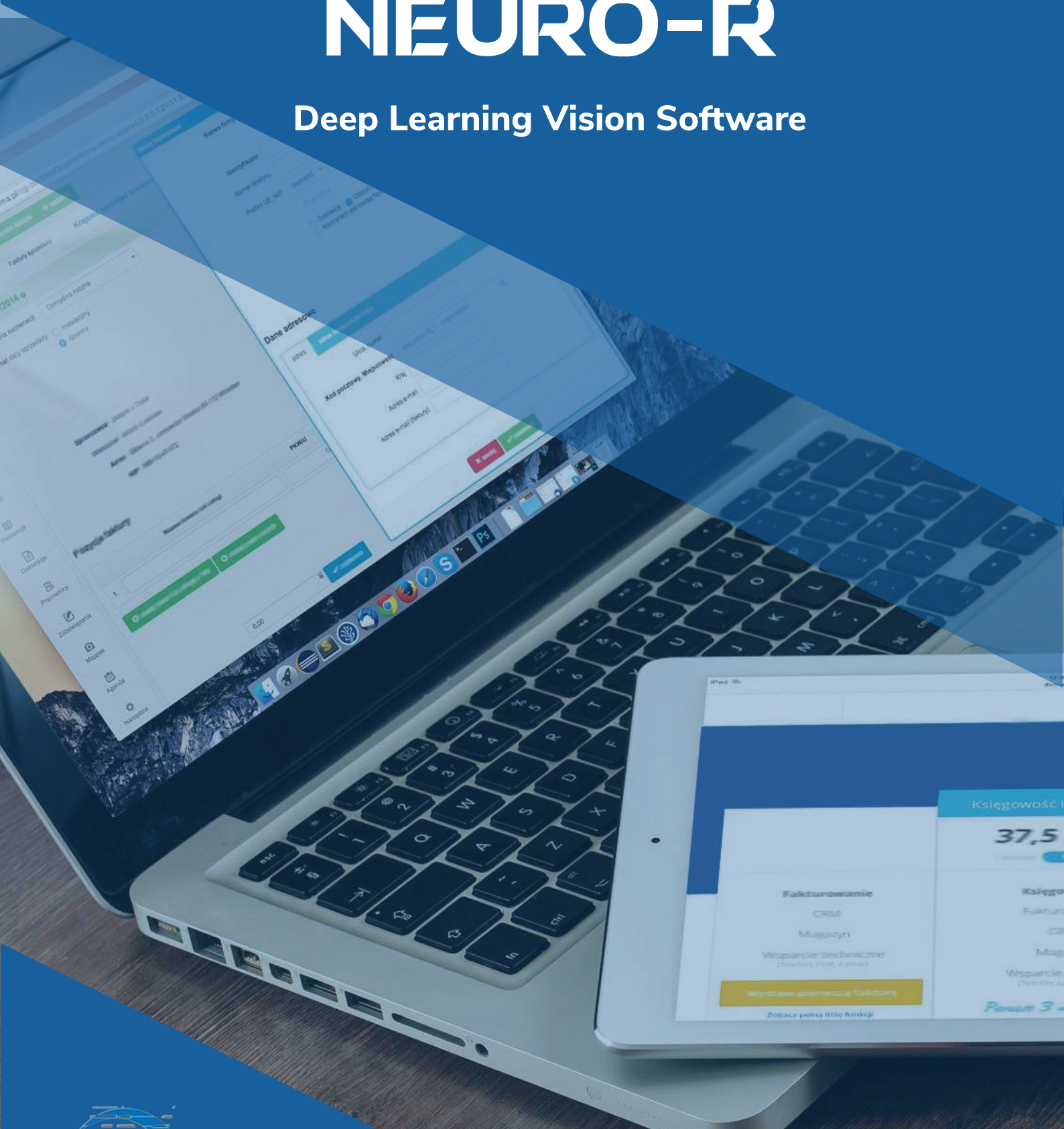




NEURO-'T NEURO-R

Deep Learning Vision Software



NEUROCLE



NEUROCLE

NEUROCLE is a company that provides Deep Learning Vision Software for non-experts. As a group of computer vision and deep learning experts, Neurocle aims to make deep learning vision technology the norm in various fields including manufacturing, medical and logistics.

Our Vision

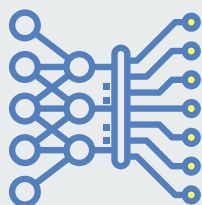
Making deep learning vision technology more accessible

Core Values

More Accurate, Affordable, and Accessible

Core Technology

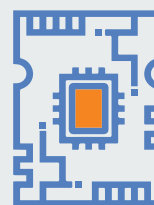
Deep Learning



Computer Vision



Embedded



NEURO-T & NEURO-R

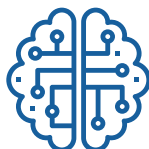
NEURO-T is a no-code software for training image-related deep learning models. With intuitive GUI and Auto Deep Learning algorithm, anyone can create the best performing deep learning models.

NEURO-R is a runtime that helps with model deployment, supporting optimized integration with various inference platforms including GPU and embedded processors.

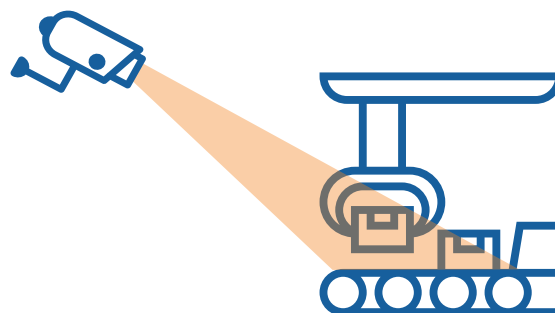


Image

TRAIN



Model

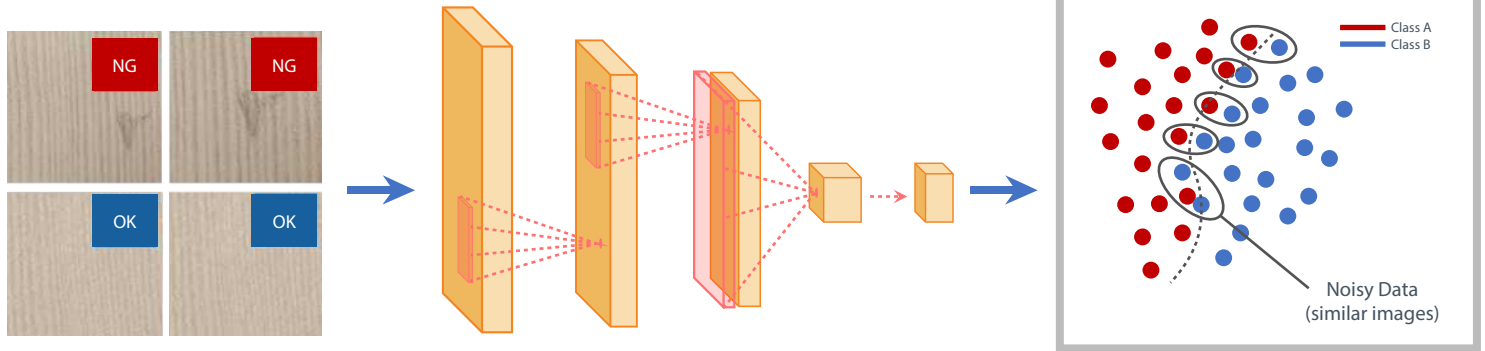


No-code deep learning software that enables non-experts to easily create model

Runtime API that can be easily integrated into existing system (compatible with C# and C++)



Deep Learning Technology



Interpret new image data automatically based on trained deep learning model

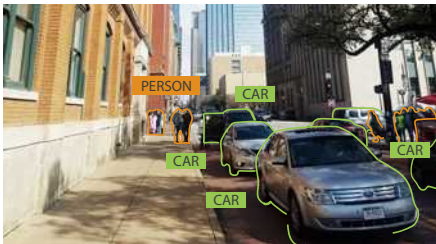
Deep Learning Model Types in Neuro-T



Classification model evaluates the image as a whole, identifying the class an image belongs to among a provided list of classes.

Use Cases : Medical image classification

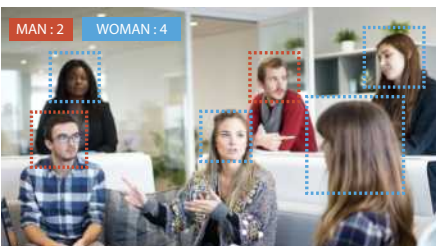
Analysis unit : Image



Segmentation model recognizes an object, its shape, and location within an image. It is perfect for locating the exact defect area, or for discovering multiple types of objects within the image.

Use Cases : Product surface inspection

Analysis unit : Pixel



Detection model detects instances of certain objects within the image. It shows size and location of the object in a bounding box format and distinguishes its class.

Use Cases : Face detection

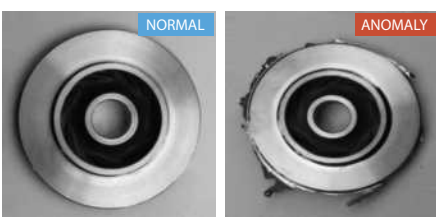
Analysis unit : Object



OCR is specialized in recognizing texts in the images. This model can detect text from the image and recognize each characters within it.

Use Cases : Bar code, Scanned document

Analysis unit : Character



Anomaly Detection model identifies outliers and captures rare items or observations that differ significantly from the majority of the data.

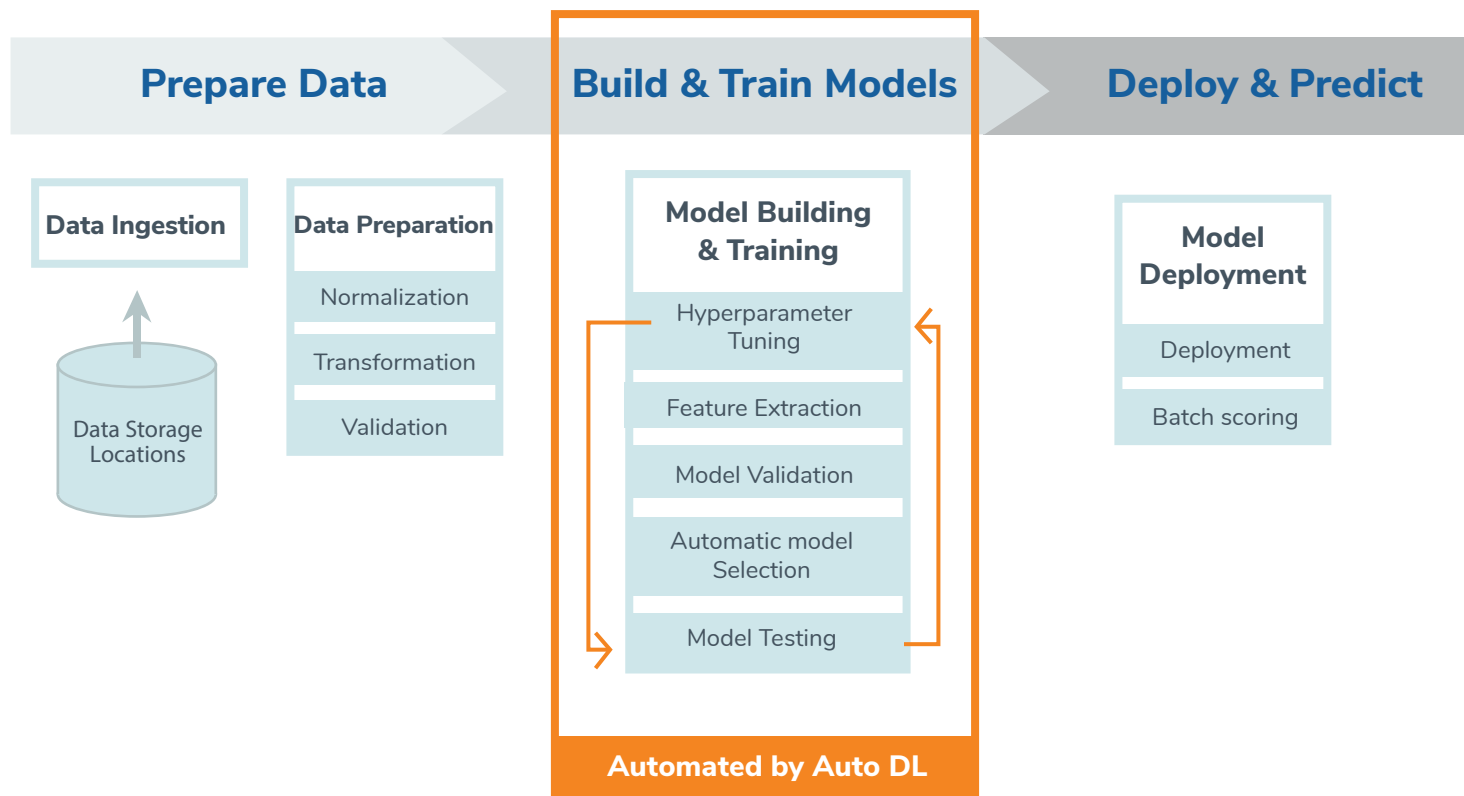
Use Cases : Normal/Defect part inspection

Analysis unit : Image



Auto Deep Learning Algorithm

Auto Deep Learning (Auto DL) algorithm is a unique algorithm of Neurocle. It self-discovers the optimal deep learning structure and set of hyperparameters. With Neuro-T's Auto DL algorithm, Neuro-T users, including a novice, can create the best-performing model without going through re-training, saving precious resources.



Create the best-performing model with one click

Benefits of Auto DL



Nonexpert-Friendly

End users can exploit their own domain expertise

Increase visibility of project details for non-experts



Fast Deployment

Re-training process is not required

No need to go through third party contractors



Resource Efficient

Deep learning experts are not required

Save engineering resources used for parameter tuning



Neuro-T Workflow

Neuro-T streamlines the process of building a deep learning model, from image collection to model evaluation and report generation.

Process for Deep Learning Project

Collect Data



Data Management



Model Creation



Model Evaluation



Report

FILE Tab



DATA Tab



TRAIN Tab



EVALUATE Tab



REPORT Tab

Import Image

Image Labeling
Set Splitting

Auto-creation of
optimised model

Check Results &
Compare Models

Create a report

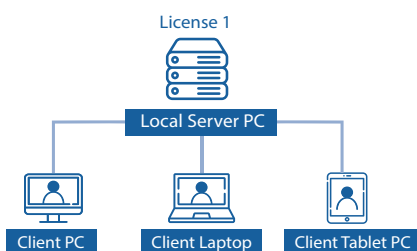
Auto DL replaces re-training process

Features

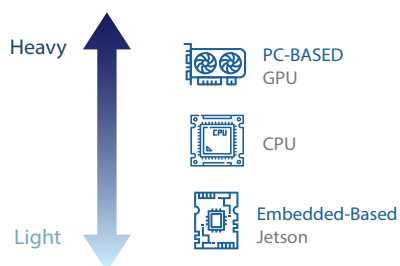


Worker1	OK	NG	NG
Worker2	OK	OK	NG
Labeling Noise			

Easy labeling comparison



Real-time Collaboration



Various Inference Platforms

Advanced Data Management System

Easy maintenance of existing models with data management system

Enhance your model performance with an advanced data management system that helps compare and analyze data and training results.

Server-Client Architecture

Keep confidential data in local server while collaborating with others

Share your project with internal and external collaborators and access projects from any device using the local cloud server (on-premise environment) provided by Neuro-T.

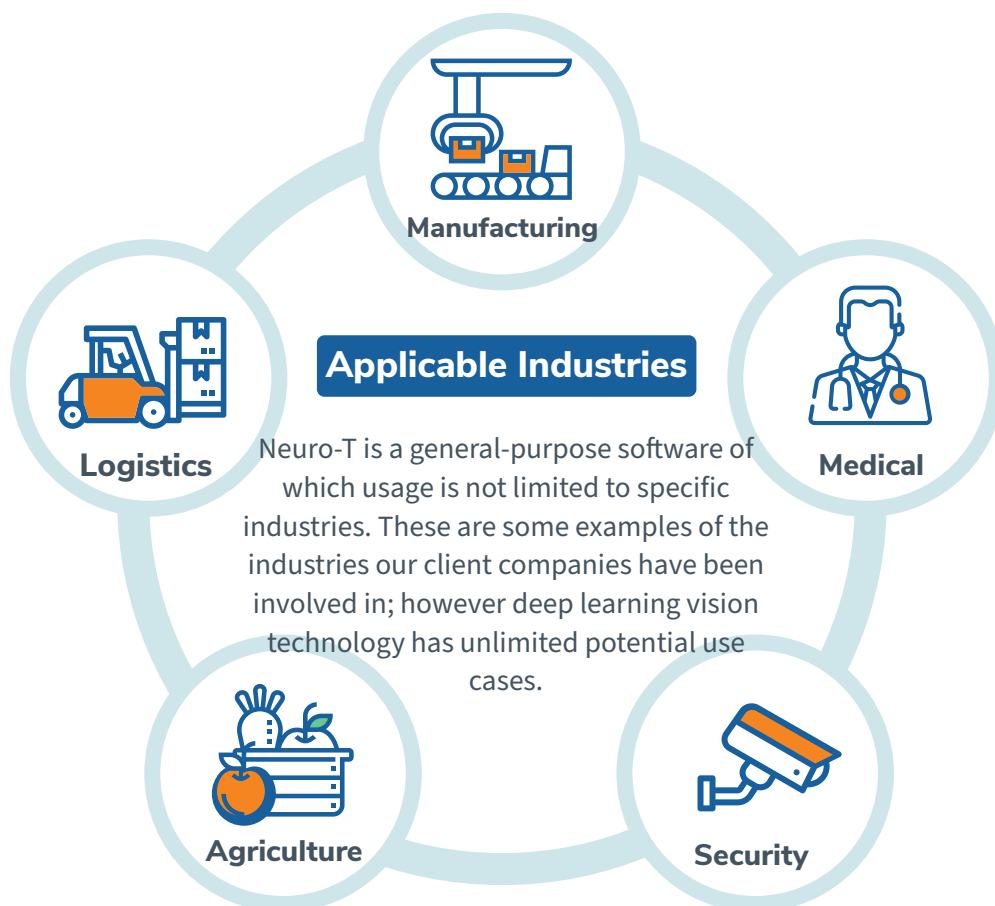
Flexible Inference Platforms

Lightweight models optimized for Embedded processors

Create and deploy models optimized for each platform. Lower the infrastructure cost with embedded-based models while enhancing processing speed.



Applications



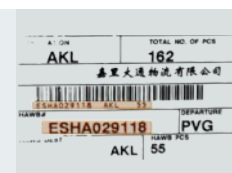
Manufacturing

Quality control process would be faster and more accurate with less resource inputs, thus improving the manufacturing process drastically.



Medical

Within the biomedical industry, a variety of medical imaging CT, X-ray, and MRI could be processed rapidly, allowing for early and accurate diagnosis.



Logistics

Using deep learning driven OCR, companies can increase accuracy and speed of information management as well as enable system automation.



Security/Defense

Real-time image processing elevates accuracy, speed, and coverage of target recognition for airport security checks, CCTV and national defense.



Agriculture

In the agriculture industry, automated crop cultivation and yielding could increase both cost and resource efficiency for large farms.



License Overview

Neurocle's products are available in a variety of license types to best meet the needs of your organization. For every purchase, you can choose the license type which suits you best based on the number of user accounts and maximum number of GPUs required for your project.

Types of Licenses		Number of Accounts	Max. Number of GPU	
Neuro-T	Basic	1	4	
	Standard	3	4	
	Advanced	6	8	
	Premium	12	16	
Neuro-R	Embedded	N/A	1	
	PC		Single	1
			Multi	4
			Unlimited	unlimited

* Neuro-T and Neuro-R provide an on-premise environment.

* Neuro-R PC versions (single, multi, and unlimited license) support both PC and embedded platforms.

* Neuro-R license should correspond with the number of GPUs available on your inference device.

Requirement Specifications

			Minimum Specifications	Recommended Specifications
Neuro-T	Server	CUDA Compute Capability	3.5 or higher	RTX 2080 Ti
		GPU Memory	8GB or higher	
		O/S	Windows 10, Windows Server 2016	
		CPU	i5 (6th Generation) or higher, Xeon E5 or higher	<ul style="list-style-type: none"> • Single GPU: i7 (9th Generation) • Dual GPU: Xeon E5-2640 v4 • 4+ GPU: Additional CPU required
		RAM	16GB or higher	32GB or higher
Client	Browser	Chrome, Microsoft Edge, Firefox		
Neuro-R	PC	CUDA Compute Capability	3.5 or higher	RTX 2080 Ti
		GPU Memory	2GB or higher	
		O/S	Windows 10, Windows Server 2016, Linux Ubuntu 18.04 amd64	
		Development Environment	Visual Studio 2010 or higher	Visual Studio 2015
	Embedded	Available Platform	NVIDIA Jetson all series	
	O/S	Linux Ubuntu 18.04		



NEUROCLE

As a group of computer vision & deep learning experts, Neurocle believes that innovation in deep learning can enhance the quality of life.

Our vision is to enable people to apply deep learning technologies to everywhere they like with easy-to-use software. No matter who the users are and what kind of system they use, we help people solve deep learning image problems.

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JM VisTec System
"Our Vision, Tomorrow's Innovation"
- The Machine Vision Specialist

