

Deep Learning Vision Inspection on Jetson Edge AI Platform

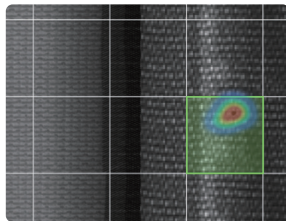
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Automotive & Battery Inspection Cases with Auto Deep Learning Vision Software

Automotive

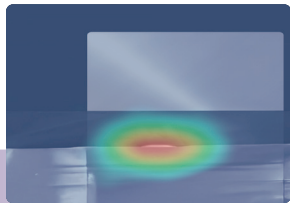


Automotive part assembly inspection

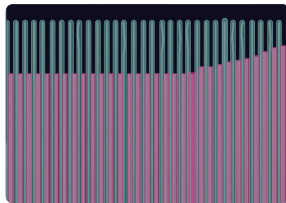


Tire X-ray inspection for irregular defects

Battery



Cell surface inspection



Internal X-ray inspection

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Model Trainer

- No-code, GUI-based software
- Users can create high-performance inspection models without deep learning expertise



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Runtime Library

- Integrate models with on-site vision systems
- Supports real-time inspection with optimized deep learning models



PJAI-100

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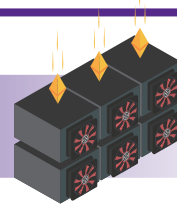
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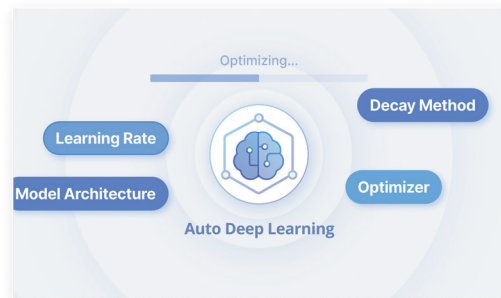
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Auto Deep Learning Vision Software

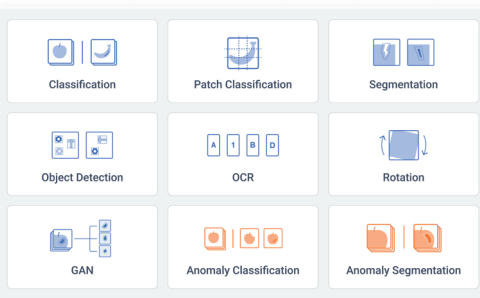


Auto Deep Learning Algorithm



Automatically optimizes model architecture and hyperparameters for high-performance inference on edge devices.

9 Types of Vision Inspection Models



Supports 9 model types for diverse inspection needs, including Synthetic defect generation, Unsupervised Anomaly, and Patch Classification models.



99.9% Inspection accuracy

Exceptional accuracy for defect detection – proven across diverse industrial applications.



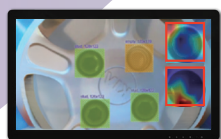
1.7ms Inference speed

Fast model inference – enabling seamless real-time inspection on production lines.



Optimized across diverse hardware platforms

From IPCs to compact Edge devices



LED Monitor



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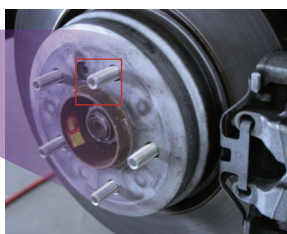
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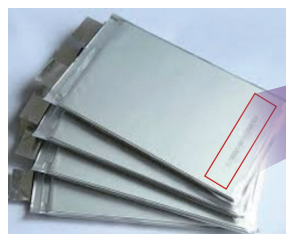
LED Monitor



GigE / USB Camera



Automotive wheel stud production line



Pouch type battery production line



GigE / USB Camera

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- Edge AI system with NVIDIA Jetson Orin NX / Nano module, up to 100 TOPS
- Orin Nano : 4GB/8GB 64-bit LPDDR5 (by SOM)
- Orin NX : 8GB/16GB 64-bit LPDDR5 (by SOM)
- 1x M.2 2280 M-Key NVMe (PCIe x4)
- Supports 1x M.2 2230 E-Key, 1x M.2 3042/3052 B-Key and 2x Nano SIM slots
- Supports 2x GbE and 3x USB 3.2 Type A ports



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Preliminary

- Edge AI system with NVIDIA Jetson AGX Orin module, up to 200 TOPS
- 32GB 256-bit LPDDR5 (by SOM)
- 1x M.2 2280 M-Key NVMe (PCIe x4), 1x MicroSD and 64GB eMMC
- Supports 1x M.2 2230 E-Key, 1x M.2 3042/3052 B Key and 2 x Nano SIM slots
- Supports 12x PoE GbE, 1x GbE, 1x 10GbE and 8x USB 3.2 Type A ports



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