DELLTechnologies

LatentAI

Accelerating high-stakes decision-making in industrial edge AI

LatentAI + Dell AI Factory with NVIDIA

At a glance

Challenge

LatentAI needed to achieve maximum efficiency while running industrial edge AI models on-site in remote and challenging environments such as oil rigs and autonomous vehicles.

Solution

The company chose Dell AI Factory with NVIDIA to run its LatentAI Efficient Inference Platform (LEIP). The solution included Dell Precision 5690 workstations and NVIDIA RTX 5000 Ada Generation Laptop GPUs.[1]

Impact

With Dell and NVIDIA, LEIP technology delivers maximum computational power, performing the most accurate and complex AI model, YOLOv8, up to 300 times faster than CPU training.

Cloud computing has its place, but in these dynamic environments, you don't have the luxury of waiting. You need AI that works where the action is."

Jags Kandasamy
CEO and Co-founder, LatentAI

NVIDIA
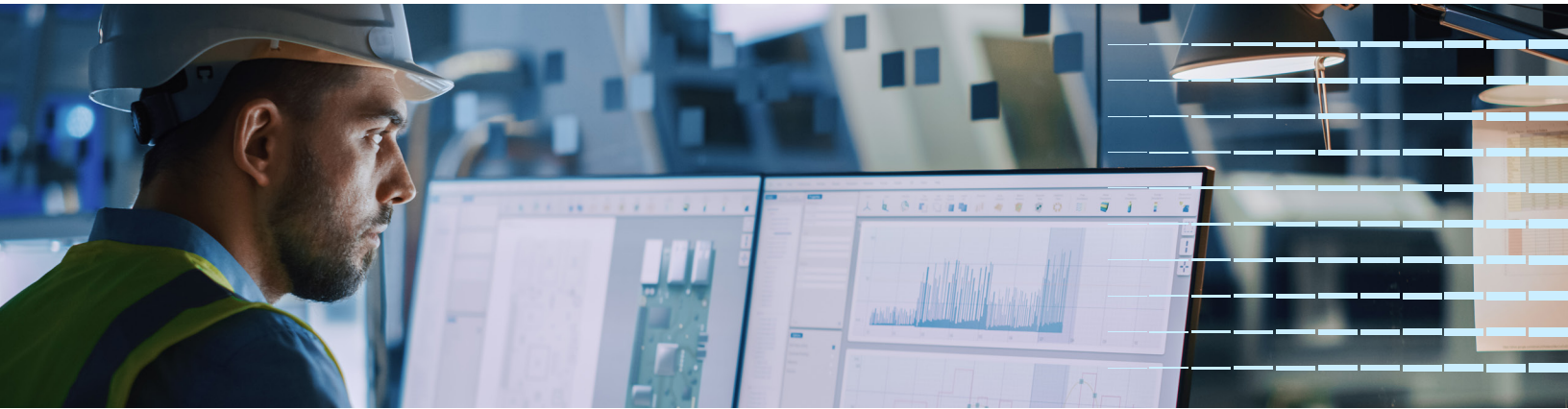
Situation

Under the most extreme or isolated conditions, critical data doesn't have the luxury of floating off into the cloud for AI inferencing. Analysis needs to happen on-site and on demand for rapid decision-making. In environments such as offshore oil rigs, it can make or break an operation. Efficient, accurate AI results can prevent equipment failure, downtime, and dangerous incidents.

Challenge

LatentAI Efficient Inference Platform (LEIP) technology dramatically accelerates industrial edge AI. Through compression and compilation, LEIP reduces the storage and computational requirements of AI models, making them smaller, faster, and more energy-efficient — all without sacrificing accuracy. But LatentAI needed technology partners that could help them take on the most demanding use cases.

Solution

Dell AI Factory with NVIDIA met LatentAI's needs for industrial edge AI, specifically a Dell Precision 5690 workstation powered by NVIDIA RTX 5000 Ada Generation Laptop GPUs. The workstation provided the AI optimization they desired, while the GPU delivered the AI performance they required. It offered up to four times faster inferencing than the previous generation.[2]

Impact

Dell AI Factory with NVIDIA exceeded LatentAI's expectations, performing the real-time objection detection model, YOLOv8, up to 300 times faster than CPU training. LatentAI continues to advance split-second decision-making with innovative Dell and NVIDIA technology such as NVIDIA IGX Orin and Jetson platforms, Dell Pro Rugged 13 laptops, and Dell Latitude Rugged Extreme tablets.

Learn More about Dell and NVIDIA for industrial edge AI