

Leading an economical AI revolution

Focoos AI

By running part of its development workloads and showcasing the efficiency of its computer vision models on a Lenovo ThinkSystem SR670 V2 server equipped with NVIDIA® L40S GPUs, Focoos AI can demonstrate to its clients the power of combining its optimized models with Lenovo and NVIDIA hardware for enhanced performance.

```
4 # Initialize
5 pygame.init()
6
7 # Screen dimensions
8 WIDTH, HEIGHT = 800, 600
9 screen = pygame.display.set_mode((WIDTH, HEIGHT))
10 pygame.display.set_caption("Visual Playground")
11
12 # Colors
13 BLACK = (0, 0, 0)
14 WHITE = (255, 255, 255)
15 COLORS = [
16     (255, 0, 0),
17     (0, 255, 0),
18     (0, 0, 255),
19     (255, 255, 0),
20     (0, 255, 255),
21     (255, 0, 255),
22 ]
23
24 # Particle class for dynamic elements
25 class Particle:
26     def __init__(self):
27         self.x = random.randint(0, WIDTH)
28         self.y = random.randint(0, HEIGHT)
29         self.radius = random.randint(2, 6)
30         self.color = random.choice(COLORS)
31         self.angle = random.uniform(0, 2 * math.pi)
32         self.speed = random.uniform(0.5, 2)
33
34     def move(self):
35         self.x += math.cos(self.angle) * self.speed
36         self.y += math.sin(self.angle) * self.speed
37
38         # Bounce off walls
39         if self.x < 0:
```

1

Customer background

Who is Focoos AI?

Focoos AI is on a mission to create simpler, more powerful AI. The company is reshaping computer vision with ultra-efficient models that drive down costs, automate hardware integration, and help ensure peak performance on almost any device, while promoting sustainability.

Focoos AI provides an advanced web platform—designed by developers, for developers—to effortlessly create and train computer vision models that are customized and optimized for any application and hardware, allowing businesses to reduce costs while enhancing performance.



2 The opportunity

Today's AI models leverage increasingly powerful GPUs, driving advancements in performance and innovation while presenting new opportunities to optimize energy efficiency and streamline development.

Antonio Tavera, CEO of Focoos AI, explains: "Traditional AI models are often oversized, which means they require considerable computational resources and energy for training and inference. As AI models grow in complexity, they demand more and more powerful processing units, leading to higher energy consumption. We set out to change this. Our mission? To embrace frugality."

2 The opportunity

Focoos AI built a cutting-edge web-based platform for economical AI development.

Equipped with ready-to-use and efficient neural networks that are easily adaptable to user needs, the Focoos AI platform significantly reduces development time and costs. The high-performance models are optimized for both cloud and low-power hardware, using up to four times less computational power than traditional AI models.¹

The company is constantly innovating—developing and training new, more-efficient neural networks that will drive down hardware utilization and energy consumption even further.

¹ Source: <https://focoos.ai/>

3 The solution

Cost-effective infrastructure for AI

To enhance internal development processes and showcase the capability to handle complex computer vision tasks locally using mid-range GPUs, Focoos AI deployed a Lenovo ThinkSystem SR670 V2 server equipped with two NVIDIA® L40S GPUs.

“Based on our industry experience, we knew exactly where to go for hardware,” says Tavera. “Lenovo is renowned for cost-effective, energy-efficient, high-performance servers, while the NVIDIA L40S GPUs deliver powerful acceleration without breaking the bank. This demonstrates how our models don’t need to run on expensive hardware—making AI more cost-efficient and accessible.”

Hardware

Lenovo ThinkSystem SR670 V2 Server
NVIDIA® L40S GPUs

“

“Delivery was fast and the deployment went smoothly. We were able to get the Lenovo server up and running in just a couple of hours. With our web platform, we can quickly design and deploy optimized models for the Lenovo hardware, enabling us to **support client use cases in just a few days.**”

Antonio Tavera
CEO, Focoos AI

4 The results

With the Lenovo ThinkSystem SR670 underpinning internal development and being used to test potential client use cases that require edge solutions, Focoos AI can demonstrate and validate the performance of its neural networks on this hardware configuration—both in terms of accuracy and speed.

“We can process more data, faster; in fact, in some manufacturing use cases—such as screw recognition and cable damage detection—we’ve observed a 55% increase in images processed per second [FPS] and even a 5% boost in recognition accuracy when deploying our models on Lenovo and NVIDIA hardware compared to standard industry solutions,” says Tavera.



55% increase in processing time



5% increase in recognition accuracy



90% faster time to market for computer vision solutions

4

The
results

Backed by Lenovo and NVIDIA, Focoos AI is planning to bring its solution to more customers and new markets. Potential use cases include autonomous inspection and automated quality control in the manufacturing sector, traffic monitoring in cities, and aerial image analysis in the aerospace industry.

“Our models have no limits on devices or industries,” confirms Tavera.

“

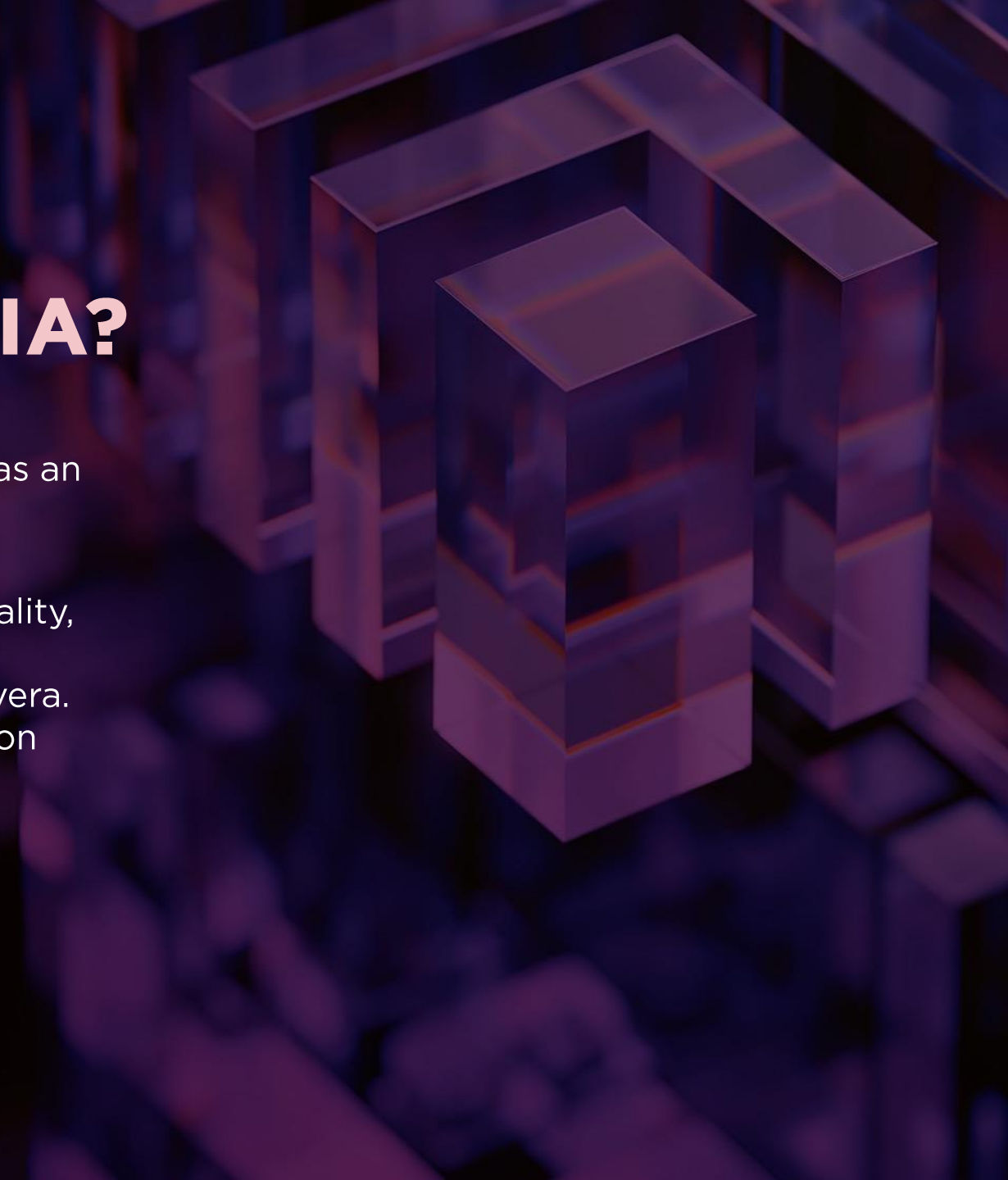
“Our goal at Focoos AI is to make our platform the gateway to **democratizing access to computer vision solutions** by making it easier for developers to incorporate these capabilities into their products—regardless of budget or hardware limitations.”

Antonio Tavera
CEO, Focoos AI

Why Lenovo and NVIDIA?

For Focoos AI, teaming up with Lenovo and NVIDIA was an easy choice.

“In terms of cost-efficiency, performance, and build quality, Lenovo ThinkSystem servers are second to none, while NVIDIA is the global leader in AI computing,” notes Tavera. “The Lenovo ThinkSystem SR670 V2 is a reliable solution that enables us to experiment and evolve.”



How can businesses harness cutting-edge AI cost-effectively?

Backed by Lenovo and NVIDIA technology, Focoos AI demonstrates how to achieve cutting-edge AI cost-effectively without compromising performance.

[Explore Lenovo AI Solutions](#)

