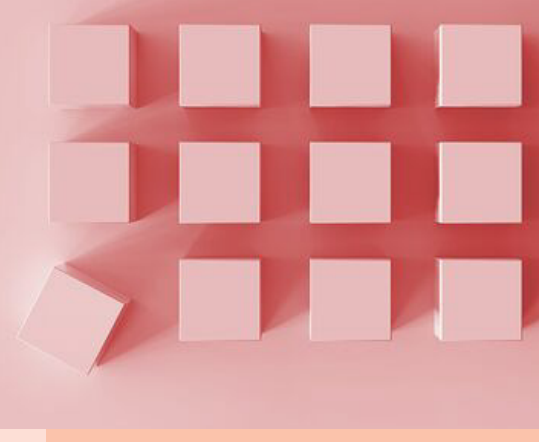
NetApp

Making computer vision crystal clear

The importance of data to AI



Score another one for the machines.

The superhuman speed and accuracy of computer vision programs are having an impact in every industry, from autonomous vehicles to AI-assisted medical diagnosis to security in banking. Computer vision powers the facial recognition on your devices and the filters on your favorite apps.

But did you know that it's also:

Only 35%[1] of people have perfect vision, but computer vision algorithms can reach greater than 99% accuracy.[2]

In the grocery store
Because three's a crowd

Computer vision can track and count the number of people in line and automatically sound an alert to open more checkouts when a threshold has been reached.[3]

In the house
Helping you heal

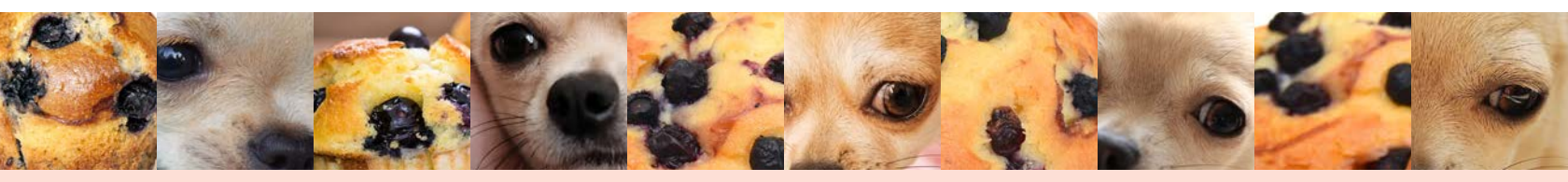
AI can observe patients in their home and guide them in performing physical therapy exercises properly.[3]

In your wallet
Pay without currency (or cards)

Next time you use a mobile payment system to pay for your morning coffee, be sure to thank computer vision for the convenience.

In the street
Get where you need to go quickly and safely

Computer vision helps smart cities manage traffic flow. It can even adjust the brightness of streetlights when people are detected.[4]



Chihuahua or a blueberry muffin?

Good data can mean the difference between a chihuahua and a blueberry muffin.[5] Training the machine learning algorithms that computer vision applications use creates a workload that's so demanding, it wants to speak to a manager. It wants massive quantities of data and significant computing power.

To achieve crystal-clear computer vision, you need:

Huge amounts of data

Computer vision programs are trained on **thousands, millions, or billions of images.**

The size of your training dataset could be the difference between seeing a chihuahua or a blueberry muffin.

The ability to move that data across edge, core, and cloud

Thousands of edge devices gather **terabytes** of data each day.

Self-driving vehicles can have 6 to 21 cameras and generate between **1TB and 32TB of data per day.**[6,7]

The power to do it all at the speed of human thought

Computer vision requires real-time response in milliseconds to tackle high-pressure, real-life scenarios.

Millisecond latency is scorching fast. Test your own reaction time.

NetApp for computer vision

NetApp® technology unlocks the power of AI. Our solutions and services remove bottlenecks at the edge, core, and cloud to enable more efficient data collection, accelerated AI workloads, and smoother cloud integration so you can:

Focus on the science, not data management. Use a best-in-class open-source stack that makes deployment easy.

Go from data to insights, actions, and outcomes faster. Get more than 2GBps of sustained throughput and under 1 millisecond latency at scale.

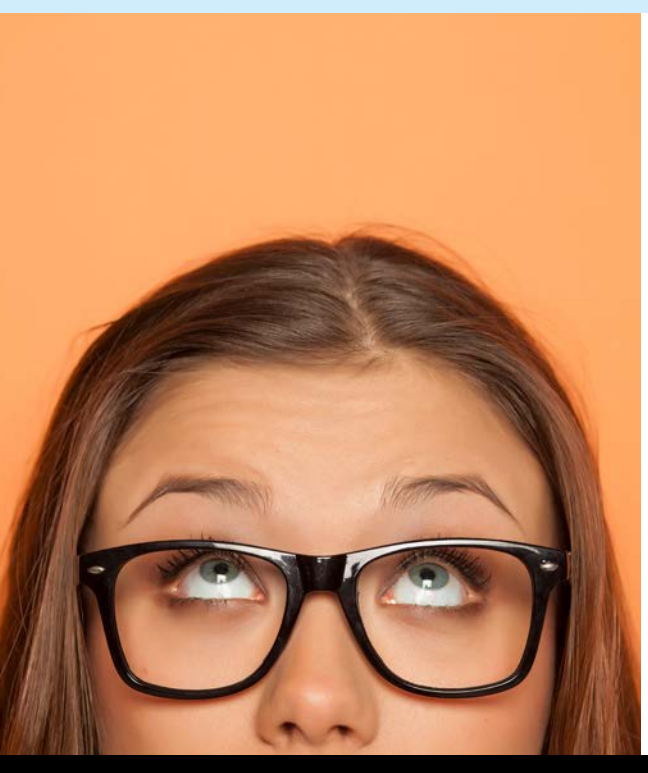
Move data where you need it and protect it wherever it lives, with access to the AI industry's most complete native set of data protection and security features.

The **NISI (Non-Invasive Surgical Innovations) Group** is leading the way in surgical and diagnostic innovations with a deep learning solution that's based on NetApp ONTAP® AI and NVIDIA.

Learn more

"Because of NetApp technology, we can now objectively quantify in **roughly 5 minutes** which part of a lung has diminished blood circulation and is damaged."

— Dr. HP Ng, General Manager, NISI



We see NetApp in your future.

When it comes down to it, computer vision depends on scale-out, file-based storage. We're talking billions of files. Lucky for you, NetApp is positioned as a leader in the IDC MarketScape for worldwide scale-out, file-based storage.

We can't give you crystal-clear vision, but we can give you the tools that you need to accelerate and to improve the accuracy of your computer vision programs.

Learn more about NetApp AI.

+1 877 263 8277

1 https://uihc.org/health-topics/what-2020-vision#:~:text=Only%20about%2035%20percent%20of,t%20see%20very%20well%2C%20Dr
2 https://towardsdatascience.com/everything-you-ever-wanted-to-know-about-computer-vision-heres-a-look-why-it-s-so-awesome-e8a58dfb641e
3 https://viso.ai/applications/computer-vision-applications/
4 https://www.allerin.com/blog/how-smart-cities-can-benefit-from-computer-vision
5 https://www.topbots.com/chihuahua-muffin-searching-best-computer-vision-api/
6 https://blocksandfiles.com/2020/02/03/autonomous-vehicle-data-storage-is-a-game-of-guesses/
7 https://blocksandfiles.com/2020/01/17/connected-car-data-storage-estimates-vary-widely/

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere.

To learn more, visit www.netapp.com

NetApp