



NVIDIA and **SAP**

AI for the intelligent enterprise



AI – Here, Now.

Creating a new era of computing

Artificial intelligence (AI) is all around us. Recommendation engines advise us on which products to choose. Our phones are voice activated. Chatbots provide us with answers to our questions. Scientists use AI for everything from improving traffic flows and protecting our computers against malware to finding cures for cancer and predicting the melting of sea ice.

The perfect storm of technological developments is driving this revolution and bringing us into a new era of computing. Three key phenomena are driving this:

- 1. Big Data** – Companies and consumers alike are generating and collecting massive amounts of information, ready to be analyzed.
- 2. Enormous computing power** – Improvements in computing technology are allowing enterprises to capture, process, and analyze the data at supercomputing speeds.
- 3. The rise of machine learning** – Scientists are making significant advancements in enabling machines to learn from data without being explicitly programmed.

In this e-book, we explore how NVIDIA Corporation and SAP SE are working together to provide enterprises with solutions that will radically change how they operate.

Learn more

See Jim McHugh, Vice President and General Manager at NVIDIA, explain how AI is creating a new era of IT.

[Watch the video](#)

Discover the differences between AI, machine learning, and deep learning.

[Read the blog](#)

Learn how companies in every industry are using AI to reinvent the way they do things.

[Explore the examples](#)

Learn what Juergen Mueller, Chief Innovation Officer at SAP, thinks about the relevance of AI and machine learning for enterprises in his blogs.

[“Go for the Intelligent Enterprise”](#)

[“How Machine Learning Drives Business Innovation – And a Diverse Workforce”](#)

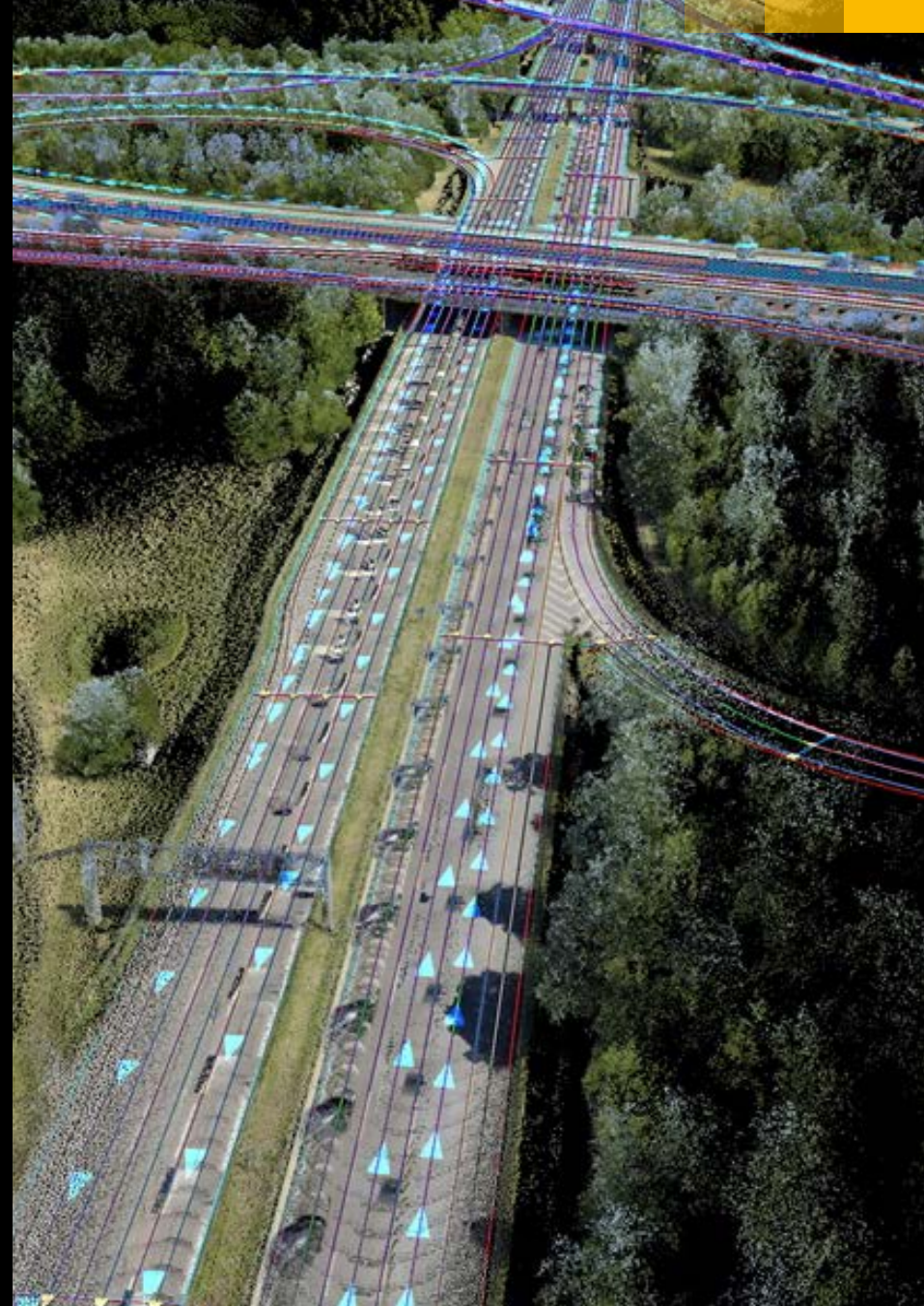
Powering Digital Transformation

Reimagining how every industry works

The major advances in technological development are allowing AI to be injected into business processes across the enterprise.

AI is enabling the entire value chain to be reimagined: from product development, marketing, and sales to service, logistics, and operations. In addition, enterprises are already applying AI to core processes, such as finance, procurement, and human resources.

Businesses are training computers to automate many of the tasks it takes humans too long to do, increasing speed, accuracy, and efficiency. Consequently, employees can focus on delivering greater value through creativity, innovation, and premium customer service.



How is AI changing the way we work?

- Leading e-commerce companies are boosting sales by recommending personalized offerings to customers.
- Finance institutions are using AI to detect fraud and money laundering activities, evaluate credit risks, and improve compliance.
- Chatbots are becoming better at understanding customer habits and needs than human operators.
- Insurers are using fitness information from wearable devices to advise customers and reduce the chance of claims.

Learn more

See how NVIDIA and SAP are bringing machine learning to the enterprise.

[Watch the video](#)

Examine why machine learning is coming of age now – and how it is changing the basis of competition.

[Read the brochure](#)

Discover how facial recognition technology changed happy hour at the GPU Technology Conference.

[Read the blog](#)



Making Machine Learning Accessible

Easing the path to adoption

NVIDIA and SAP are making it easier for organizations to adopt and implement machine learning.

NVIDIA Corporation

NVIDIA graphics processing units (GPUs) have proven to be unbelievably effective at solving some of the most complex problems in computer science. The GPU started out as an engine for stimulating human imagination, conjuring up the amazing virtual worlds of video games and Hollywood films.

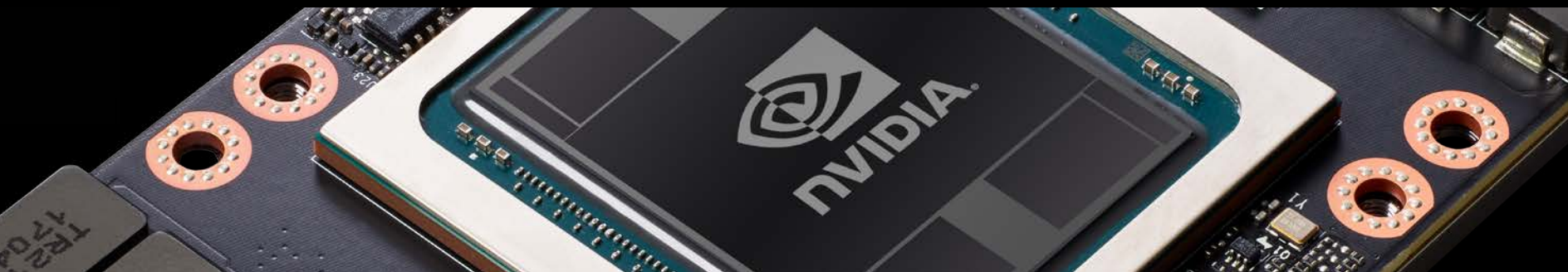
Today, NVIDIA GPUs simulate human intelligence, running deep-learning algorithms and acting as the brain of computers, robots, and self-driving cars that can perceive and understand the world. With its technology and software, NVIDIA is democratizing AI for all to use.

SAP SE

SAP® Leonardo Machine Learning capabilities make it simpler to add intelligence to applications in two ways.

First, SAP is offering more applications enabled by machine learning. These applications reimagine business processes and aim to turn all repetitive transactional activities involving digital data into software.

Second, SAP provides developers with business-service and function-level APIs through the SAP Leonardo Machine Learning Foundation. Easily consumable through SAP API Business Hub, these APIs enable developers to add intelligence to their solutions.



Learn more

Learn more about SAP Leonardo Machine Learning Foundation and SAP API Business Hub.

[Visit the Web site](#)

[Read the solution brief](#)

Discover NVIDIA's hardware and software solutions for AI.

[Visit the Web site](#)

Check out how SAP and NVIDIA are helping customers become intelligent enterprises.

[Read the blog](#)



Delivering ML Applications

Introducing the SAP Leonardo digital innovation system

The SAP Leonardo digital innovation system features a constantly expanding suite of machine learning applications and services. Here are four that are accelerated by NVIDIA GPUs. Many more are in development.

SAP Brand Impact

This application eliminates the need to analyze videos for brand exposure manually. The application detects logos and other corporate brand assets and provides accurate reports on visibility by time, size on screen, location on screen, and other parameters. Marketers can plan and measure the ROI of their marketing spend more accurately.

SAP Service Ticket Intelligence

This application automatically categorizes service tickets and recommends solutions to service agents. It shrinks time to resolution, keeps service organizations customer centric, and boosts the success rate of agents.



SAP Accounts Payable

This application automates labor-intensive invoice-matching processes, using machine learning to match criteria from history and clear payments. It accelerates processes from minutes to seconds, reduces error, and allows organizations to process increasing volumes of invoices without increasing staff.

SAP Resume Matching

This application automates candidate screening and recommends best candidates for jobs without bias. Organizations can fast-track the recruiting process by reducing false positives to quickly find the right talent, saving staff time to devote to corporate brand leadership.

Learn more

Watch the demos:

[SAP Brand Impact powered by SAP Leonardo](#)

[SAP Resume Matching powered by SAP Leonardo](#)

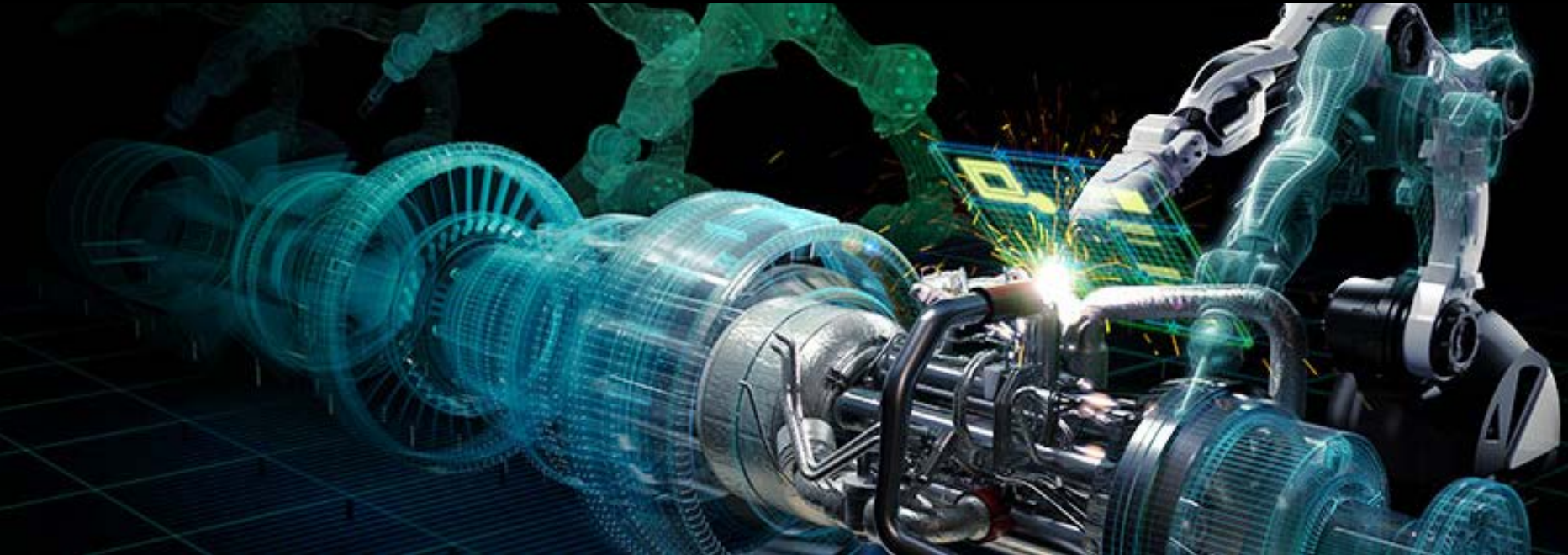
Read the solution briefs

[SAP Service Ticket Intelligence powered by SAP Leonardo](#)

[SAP Brand Impact powered by SAP Leonardo](#)

Discover how NVIDIA GPUs helped SAP reduce its production cycle from close to two years to nine months.

[Read the blog](#)





Imagining the Future

Taking AI to the next level

Examples like these are only the start of what can be achieved with machine learning.

Consumer products companies are using machines to recommend products. For example, customers take a selfie and get immediate recommendations for skincare products best for them.

Banks are making great strides in using machine learning to sift through masses of data to identify potentially fraudulent transactions.

IT organizations are putting machine learning to work to spot anomalies in network traffic to increase cybersecurity.

Healthcare professionals are using AI and machine learning to improve cancer diagnosis and treatment.

With improvements in natural language processing, automated chatbots will become the norm. And we may come to prefer

them, as they access and analyze information faster than humans and give us the answers we want.

In manufacturing, video recognition can be used to identify defects that humans would miss, then automatically reroute damaged components.

In retail stores, image processing can alert store managers to missing or improperly displayed items. Many automobile companies that already rely on AI and machine learning to run their navigation system are betting there will be some form of self-driving car before 2025. AI and machine learning will be vital components of these.

The possibilities are limitless.

Learn more

Keep up-to-date with the latest developments by signing up for the NVIDIA AI newsletter.

[Start now](#)

Getting Started

Eight best practices for starting your AI journey

Getting started with AI can seem like a daunting task. However, by following these eight best practices, organizations can start to reap the benefits quickly.

1. Determine which processes are ready for AI

Based on the potential savings, establish which processes are ripe for automation.

2. Focus on a particular use case

Select the process that will have the most impact on the organization's performance.

3. Invest in the right AI tools

Evaluate the tools available, their ease of use, and whether they will meet future requirements.

4. Get smart, get trained

Take the time to understand the fundamentals behind machine learning and how to use the tools.

5. Understand the available data

Ensure data is of the highest quality. The higher the data quality, the better the insights AI delivers.

6. Establish governance processes

Make sure the procedures for putting machine learning into practice are well understood.

7. Deploy AI applications

Plan for deployment and assign teams to ensure the work is carried out correctly.

8. Manage, monitor, and optimize continuously

As businesses change, models must be updated and solutions retaught with new data.

Learn more

Get the hands-on training you need to start solving problems with AI at the NVIDIA Deep Learning Institute.

[Sign up now](#)

Discover SAP Leonardo Machine Learning Foundation, an infrastructure for machine learning applications and services.

[Visit now](#)



Next Steps

Let's talk about how we can help you

Artificial intelligence is already here and poised to change how enterprises operate radically. Companies that embrace the technology will steal an advantage over their competition by advancing new business models and automating processes.

NVIDIA and SAP are at the forefront of this revolution. NVIDIA provides the supercomputing solutions needed to analyze massive amounts of data. SAP software adds intelligence to enterprise applications.

Together, the two companies can help your business adapt to this new era of computing and reap the benefits. To find out more:

NVIDIA

Visit [our Web site](#)

E-mail: info@nvidia.com

Contact [our locations](#)

Keep up-to-date with all the latest news about AI:

[Sign up for the newsletter](#)

Follow us on:

[Twitter](#)

[Facebook](#)

[YouTube](#)

[Instagram](#)

[LinkedIn](#)

SAP

Visit [our Web site](#)

Send us [a message](#)

Call: +1-800-872-1727

Or see our complete list of [local country numbers](#)

Follow us on:

[Twitter](#)

[LinkedIn](#)

For more information, please visit:

www.nvidia.com

www.sap.com/ml

© 2017 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

The information contained herein may be changed without prior notice. Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, and they should not be relied upon in making purchasing decisions.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.

See <http://www.sap.com/corporate-en/legal/copyright/index.epx> for additional trademark information and notices.