NVIDIA pioneered accelerated computing to solve problems that normal computers cannot solve. The approach is broadly recognized as the way to advance computing as Moore’s law ends and AI lifts off. NVIDIA’s platform is installed in several hundred million computers, is available in every cloud and from every server maker, powers 136 of the TOP500 supercomputers, and boasts 1.6 million developers.
AT THE INTERSECTION OF GRAPHICS, HPC, AI

NVIDIA innovates at the intersection of graphics, HPC, and AI. We simulate worlds, physics, and intelligence in real time. We make computers for the da Vincis and Einsteins of our time so that they can see and create the future.
ACCELERATED COMPUTING — MUCH MORE THAN A CHIP

Accelerated computing uses the right tool for the right job — two processors: one great for sequential single-threaded processing; one great at parallel multi-threaded processing.

It demands deep integration – from the processor and systems and data centers, to the algorithms and applications that run on top of them.

Nearly 15 years in the market, NVIDIA CUDA is the de facto standard architecture for accelerated computing.

In addition, we’ve developed software that optimizes our platform for the large markets we serve, from gaming to transportation to healthcare.
NVIDIA REINVENTS MODERN COMPUTER GRAPHICS

Our invention of the GPU in 1999 made real-time programmable shading possible, giving artists an infinite palette for expression.

In 2018, our introduction of the Turing GPU architecture and NVIDIA RTX™ ray-tracing technology fulfilled another vision of computer scientists, paving the way to new levels of art and realism in real-time graphics.

We’ve led the field of visual computing for decades.
A NEW ERA FOR VISUAL EFFECTS

Turing-based Quadro® RTX delivers photoreal graphics that creators didn’t expect for another 5-10 years.

Quadro RTX GPUs can now accelerate photoreal rendering for large industries that previously only used CPU server farms: film, animation, architecture, product design, and others.

NVIDIA has reinvented computer graphics, again.
POWERFUL TOOLS FOR TODAY’S DIGITAL CONTENT CREATORS

For today’s creators, the world is their studio. With GPU energy-efficiency and total system optimization, RTX Studio includes more than 40 systems purpose-built for content creators. They range from thin and light Max-Q laptops up through Quadro RTX 8000 workstations and RTX 8000 servers.
ONE 3D DESIGN APP TO UNITE THEM ALL

Large-scale 3D content creation is a giant collaboration and data sharing challenge. Experts from many studios work together across different design tools and file formats.

NVIDIA Omniverse is a new collaboration platform to unite these 3D production pipelines and let artists share assets seamlessly across creative applications.

Now the work of many can be seen by all, in real time and in the splendor of Omniverse’s RTX-based viewport.
A NEW BLUEPRINT FOR ARCHITECTURAL DESIGN

The ability to imagine how a new building fits into its environment is an art. NVIDIA Omniverse for AEC makes it a science.

Omniverse gives designers in architecture, engineering, and construction a look at their creations in photorealistic detail during the design process and well before laying the first brick.

Omniverse now supports major AEC apps like Autodesk REVIT, Trimble SketchUP, and McNeel Rhino.
GEFORCE —
THE WORLD’S LARGEST
GAMING PLATFORM

Gaming is the world’s largest entertainment industry. With 200 million gamers, NVIDIA GeForce® is its largest platform. GeForce RTX GPUs and the GeForce Experience™ application transform everyday PCs into powerful gaming machines.
RTX RESETS GAMING

GeForce RTX has redefined what’s possible in gaming. Real-time ray tracing and neural graphics processing come together to create eye-popping images and deliver a level of photorealism never before seen in PC gaming.

RTX is bringing a new visual dimension to AAA games like Call of Duty Modern Warfare, Control, and Watch Dogs: Legion.

And it’s opened entirely new possibilities for games like Minecraft — the world’s best-selling video game — where players shape the game’s visuals in real time.
HIGH-END PC GAMING FOR EVERYONE

One day, everyone will be a gamer. NVIDIA GeForce NOW® is a gaming PC in the cloud that turns underpowered or incompatible computers—Macs and PCs alike—into powerful GeForce gaming rigs.

NVIDIA and telco alliance partners like SoftBank and LG U+ offer GeForce NOW to gamers across North America, Europe, Russia, Korea, and Japan.
NVIDIA IS POWERING THE NEXT ERA OF HIGH PERFORMANCE COMPUTING

In 2006, the creation of our CUDA programming model and Tesla® GPU platform brought parallel processing to general-purpose computing. A powerful new approach to high performance computing was born.

Today, the universe of supercomputing is expanding rapidly to include AI, advanced data analytics, and cloud computing. The era of the CPU-centered monolithic supercomputer is coming to a close. The next era has begun.
POWERING THE WORLD’S FASTEST SUPERCOMPUTERS

Accelerated computing is the way forward for the world’s most powerful computers. More than 600 applications support CUDA today, including the top 15 in HPC.

NVIDIA powers U.S.-based Summit, the world’s fastest supercomputer, as well as the fastest systems in Europe and Japan. More than 130 supercomputers on the TOP500 list are accelerated by NVIDIA, including five of the top 10.
THE NEXT GIANT LEAP

To safely land the first manned mission to Mars, NASA has one chance to slow its spacecraft from 12,000 MPH to zero. It’s an incredibly complex problem of physics and technology.

To solve it, NASA is performing hundreds of landing simulations using the Summit supercomputer.

Analyzing and visualizing the 150 terabytes of data is a supercomputing feat of its own. With NVIDIA’s Magnum IO GPU Direct Storage running on NVIDIA DGX-2, NASA was able to visualize its experiment in real time.
A NEW ENGINE FOR TOMORROW’S SUPERCOMPUTERS

As the world of supercomputing expands across science and industry, use of Arm’s popular and flexible CPU architecture is on the rise.

The world’s leading computer makers are creating the next generation of Arm-based, GPU-accelerated HPC systems with the NVIDIA HPC for Arm as a reference platform.
AI RENAISSANCE

Since 2012, we’ve pushed the boundaries of AI research and development, harnessing accelerated computing to create new breakthroughs and push others to new levels.

Now these capabilities are converging, opening an exciting future for interactive AI applications that will change our lives. But they will require intense computing performance.

Accelerated computing is making that future possible.
TWO GIANT WAVES OF AI

In 2012, GPU-accelerated AlexNet ushered in the era of superhuman image recognition. Since then, we’ve used deep learning to teach AI how to observe and identify images and sounds, to understand their condition, and to infer what may come next.

With the latest breakthroughs in natural language understanding, AI is learning the code of human knowledge. Computers can have natural dialogue, read and summarize for us, and more naturally collaborate with us.
ONE PLATFORM, FOUR ENGINES

Industries from transportation to healthcare and financial services to retail are racing to leverage the automation power of AI. As they do, AI is moving from the cloud to the edge, and into autonomous devices. NVIDIA is creating a platform for each step.

DGX for Training

HGX for Hyperscale Cloud

EGX for Edge AI

AGX for Autonomous Systems
WORLD’S MOST POWERFUL AI TRAINING TOOL

Building amazing AI applications begins with training neural networks. NVIDIA DGX-2 is the world’s most powerful tool for AI training, uniting 16 GPUs to deliver 2 petaflops of training performance.

With the extreme IO performance of Mellanox InfiniBand networking, DGX-2 systems can quickly scale to supercomputer-class NVIDIA DGX SuperPODs.

In 2019, DGX-2 set world records on MLPerf, a new set of industry benchmarks designed to test deep learning performance.
Is there a Mexican restaurant nearby?

The nearest Mexican restaurant is Luna Mexican Kitchen.
THE SMART EVERYTHING REVOLUTION HAS BEGUN

The smartphone was the first wave of the Internet of Things revolution. Software-defined, imbued with sensors, and connected to the cloud, the smartphone was fertile ground for millions of developers to create apps that are now central to our daily lives.

The next wave has begun. Now almost everything around us can be smart, cloud-connected, and based on a platform on which imaginative services can be built for almost every industry.
POWERING AI AT THE EDGE

AI is spilling out of the cloud and into the edge where oceans of raw data is generated by the world’s largest industries. On factory floors. In stores. On city streets. In urgent care facilities.

The NVIDIA EGX platform puts AI performance closer to the data to drive real-time decisions when and where they’re needed most.
Researchers at UC Berkeley and UCSF used NVIDIA GPUs to develop an AI model that detects brain hemorrhages (above in red) with 99% accuracy.

STAYING A STEP AHEAD OF DISEASE

With each second that passes during a stroke, patients lose brain tissue and suffer irreparable damage.

NVIDIA Clara is an AI platform for medical institutions to create AI models that make image analysis, scientific research, and drug discovery faster and smarter.

With federated learning, hospitals can share and improve Clara AI models with each other — without ever sharing patient data.
NVIDIA ISAAC — WHERE ROBOTS GO TO LEARN

Eventually, all machines that move will be autonomous, creating new opportunities in every industry from manufacturing and agriculture to consumer products and retail.

NVIDIA Isaac is a platform to accelerate the development and deployment of robotics. Isaac Gym is a physically accurate VR simulator that roboticists can use to create and train robots.

Drop the software created in Isaac Gym into a robot with the Isaac SDK, and an intelligent machine is born.

Hundreds of “Leonardo” robotic arms can train at once in the Isaac Gym virtual training ground.
JETSON AGX AND ISAAC DELIVER AI TO ROBOTICS AND IOT INDUSTRY

NVIDIA Jetson™ AGX Xavier delivers the energy-efficient computational power needed for embedded systems like robots, drones, and smart cities. And the new Jetson Xavier NX will enable millions more small, low-power AI systems for embedded IoT apps.

From Xavier to Volta, all of NVIDIA’s AI computers run on the same CUDA-X™ AI software stack.
NVIDIA DRIVE FOR AUTONOMOUS VEHICLES

Autonomous vehicles will revolutionize the $10 trillion transportation industry.

NVIDIA DRIVE is an open platform and enables researchers and programmers to develop new algorithms or adapt them for specific vehicles.

To train the network, data from all over the world needs to be collected and fed into an NVIDIA DGX supercomputer.

Simulation expands the training set and covers dangerous scenarios that can’t be captured on the road. The trained model is deployed on an in-car supercomputer, for capabilities like pedestrian detection and driver monitoring.
CREATING THE FUTURE OF TRANSPORTATION

Hundreds of automakers, mobility services, truck makers, tier ones, mapping, and sensor companies are developing on NVIDIA DRIVE to create the future of transportation.

Daimler and Bosch are developing robotaxi fleets with DRIVE. Volkswagen is developing AI-infused cockpit experiences on DRIVE. And safety agencies like TÜV SÜD are using DRIVE Constellation to formulate their self-driving validation standards.
NVIDIA AND TOYOTA —
A MODEL FOR AUTONOMOUS VEHICLE COLLABORATION

For decades, auto industry R&D investments focused on engine design and materials fabrication. Now leading automakers are shifting investments toward the software-defined future of autonomous driving.

Toyota is collaborating with NVIDIA to develop, train, and validate a single architecture to scale across its full line of next-generation autonomous vehicles.
NVIDIA CULTURE

NVIDIA is united by a unique culture — the operating system of our company. We dream big, take risks, and learn from our mistakes together. Speed is the key to our success. Craftsmanship is a passion. There are no org charts — the project is the boss.

These beliefs inform everything we do, from designing amazing products to building one of the world’s great companies — a place where people can do their life’s work.
NVIDIA — A LEARNING MACHINE

NVIDIA has continuously reinvented itself over more than two decades.

Our invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined modern computer graphics, and revolutionized parallel computing. More recently, GPU computing ignited the era of AI.

NVIDIA is a “learning machine” that constantly evolves by adapting to new opportunities that are hard to solve, that only we can tackle, and that matter to the world.
INSPIRED TO GIVE TO OUR COMMUNITIES

NVIDIA employees are dedicated to building technology that moves humanity forward and supporting the communities in which they work and live.

We’ve been recognized as a top company in social responsibility, and our employees are passionate donors to hundreds of charities around the globe – with $5.3 million in philanthropic giving in 2019. During the year, 90% of our offices engaged in volunteer activities in their communities.
“Employees’ Choice: Highest Rated CEOs”
— Glassdoor

“100 Best Companies to Work For”
— Fortune

“World’s Best Performing CEO”
— Harvard Business Review

“Most Innovative Companies”
— Fast Company

“50 Smartest Companies”
— MIT Tech Review

“World’s Best CEOs”
— Barron’s

Founded in 1993
Jensen Huang, Founder & CEO
13,000 Employees
$11.7B in FY19