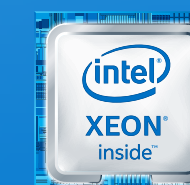
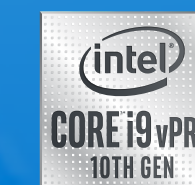
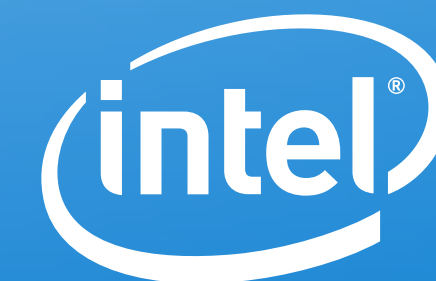


 Dell Technologies

# Artificial Intelligence Workflows





# Artificial Intelligence – Harnessing the Power of Machines

AI is about computers using neural networks (deep learning) and machine learning to help plan and solve problems across numerous industries. Thanks to advances in software algorithms and hardware with faster/larger GPU memory, AI systems are able to perform highly-intensive computing tasks such as petabyte-scale data processing and model training – increasing productivity and operational efficiencies, making business decisions faster and reducing human error. Dell Technologies is at the forefront of AI, providing the technology that makes tomorrow possible, today. We uniquely offer an extensive portfolio of workstation technologies which enable the data analytics solutions and high-performance computation that underpin successful AI, machine and deep learning implementations.

**See the most common industry workflows below.**

# Healthcare & Life Sciences

When it comes to our health, the promise of artificial intelligence (AI) to improve our well-being is very important. While there is still much to overcome to achieve fully AI-driven healthcare, most notably a distrust of machines, and fears of mismanaged care due to machine error and lack of human oversight; there is still sufficient potential that healthcare providers are willing to invest in and implement AI-powered tools and solutions. In fact, physicians are using deep learning to analyze large volumes of medical images for more efficient, accurate treatments that result in a higher chance of recovery. Here are six AI advances in healthcare that appear to have some great potential.



## DRUG INTERACTION

Researchers have begun to develop deep learning-based solutions that predict drug interactions with a very high level of accuracy. This has the potential to help patients avoid the unexpected effects of mixing drugs with other drugs or food.



## CANCER DETECTION

AI is currently being used to detect various types of cancer. In many cases, the detection capability is as accurate, or even more accurate, than skilled clinicians. Examples: Skin Cancer, Prostate Cancer, Colorectal Cancer, Breast Cancer, and more.



## CHRONIC ILLNESS PREDICTION

AI can empower physicians to make quick, statistically-grounded clinical decisions and allow for better diagnosis and treatment of debilitating conditions. Examples: Macular Degeneration, Diabetes, Chronic Kidney Disease, Depression, COPD, Congestive Heart Failure, and more.



## DRUG DISCOVERY

Pharmaceutical companies worldwide are now investing in and using AI to learn from complex data sets to help scientists design and test potential new drugs more quickly and cost-effectively than ever before.



## GENE MUTATION/ SEQUENCING

AI solutions exist in the domain of DNA and genes. From pinpointing how specific mutations can disrupt the way genes turn on and off throughout the body to identifying all mutations an individual inherits from their parents, this emerging AI category in HCLS will have an impact for generations to come.



## SANITATION

Hospital-acquired infections are a common problem. Using AI technologies in the form of Machine Learning and IoT, hospitals have the ability to track usage of hand sanitizers outside patient rooms to better guard against infection.

### Challenges:

1. Building trust among patients and maintaining compliance with regulations and data governance.
2. HCLS data sets can be large and model-building and can take days to weeks on even the largest computing clusters.

### Overcome those challenges with Dell's AI solutions below:

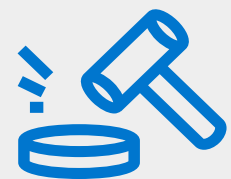
Fixed AI Training

Mobile AI

Remote AI

# Business & Financial Services

One of the earliest adopters and pillars of success with artificial intelligence (AI) technologies has been the business and financial services sector (also known as FinTech). Even as early as the 1980s and 1990s, investment organizations were using AI to make better investment decisions and financial institutions were using it to reduce the number and magnitude of fraudulent transactions. Fast forward to present day, AI is now processing massive amounts of customer information to cut costs and monitor behavior patterns resulting in an improved customer experience. AI is still being used to analyze markets and detect fraud, but at even greater accuracy. Here are five potential AI solutions in the FinTech space.



## FRAUD PREVENTION

Fraud has long been a major issue for financial services institutions. Furthermore, as global transactions have increased, so has the risk of fraud. Naturally, AI plays a significant role in financial fraud reduction.



## RISK MANAGEMENT

AI is enabling financial institutions to expand their lending into regions without credit scoring (particularly China). Most importantly, it's enabling them to undertake this lending expansion without a significant increase in credit risk.



## TRADING & INVESTMENT PREDICTIONS

AI can synthesize billions of pieces of information enabling better trend detection and pattern recognition. As a result, investors, portfolio managers, sovereign wealth funds (SWFs), and other financial institutions can benefit from AI's ability to better estimate future prices in an attempt to reduce the inevitable emotional burden which accompanies investing.



## CUSTOMER SERVICE

Chatbots and intelligent resolution agents are leading the charge in enhanced customer service solutions powered by AI. Global banking executives believe AI will enhance their customer service operations through the use of virtual customer assistants, thereby improving the overall customer experience.



## SALES FORECASTING

AI-powered sales forecasting software gathers data about past deals, both won and lost. By utilizing information from emails, meetings, and even phone calls, intelligent forecasting software can utilize this information to drive efficiencies and better predict sales outcomes.

### Challenges:

1. Privacy concerns with customer information.
2. Ability to quickly identify and adjust to changes in the underlying financial environment.
3. Keeping up with regulations and governances.

**Overcome those challenges with Dell's AI solutions below:**

Fixed AI Training

Mobile AI

Remote AI



# Security

While security as a percentage of IT spend continues to grow at a robust rate, the cost of security breaches is growing even faster. Artificial intelligence (AI) and machine learning (ML) can offer IT security professionals a way to enforce good cybersecurity practices and shrink the attack surface instead of constantly chasing after malicious activity. Here are four advances that appear to have the most potential.



## FACIAL RECOGNITION

The global video surveillance market is expected to post significant compound annual growth rates over the coming years. The benefits of leveraging AI in the physical security industry is enormous, as AI can be the key to transforming the security industry from evidence collection to actual prevention. With adequate data, AI solutions can begin to understand human behavior unlocking the passage to real-time situational awareness of public safety and asset protection.



## CYBER SECURITY

One of machine learning’s greater strengths is outlier detection, which is the backbone for user and entity behavior analytics (UEBA). UEBA determines whether an activity emanating from or being received by a given device is anomalous, thereby making it a natural fit for many major cybersecurity defensive activities.



## SATELLITE IMAGERY

Satellite imaging and Geospatial analytics is an emerging applications space for AI and ML solutions. This opens up new use cases, particularly around security relating to traffic patterns or infrared activity in efforts to map drug trafficking patterns.



## CRIME PREVENTION

Cities are making significant investments in connectivity and with that comes the ability to better utilize real-time information and AI technologies for better policing of urban areas. By utilizing AI and Game Theory methods, police services are able to better detect and predict when a person or place might become a target, thereby potentially preventing a crime before it takes place.

### Challenges:

Traceability and trust are huge requirements in security solutions. Utilizing high-performing, black-box AI solutions may present a challenge when traceability and trust become high priorities.

### Overcome those challenges with Dell’s AI solutions below:

Fixed AI Training

Mobile AI

Remote AI

# Media and Entertainment

The Media and Entertainment industry is a cornerstone of contemporary human culture, delivering films, TV shows, advertisements and more across a wide variety of devices. With trillions of dollars in revenue at stake, the competitive landscape of the M&E industry continues to challenge all market participants. As a result, many companies are looking to gain an advantage by turning to AI technologies to boost business in workflows from filming and visual design, right through to post production. The following are four M&E examples with significant AI potential.



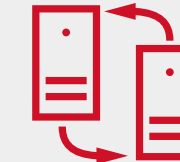
## VIDEO CAPTIONING

In the past few years, there has been a major shift towards video content as the primary form of media. Considering this momentum, the importance of closed captioning has only increased. There are now closed captioning solutions that leverage AI to automate the captioning process, while ensuring increased accuracy over time via machine learning.



## CONTENT-BASED SEARCH

The Internet hosts countless media works. Video, audio and text can all be transformed into digital copies which can be stored and spread so easily that it is getting increasingly difficult for people to find exactly what they want online. AI is helping optimize the accuracy of search results by using computer vision techniques to automatically identify and catalog the content of video streams and in so doing, accelerate the media production process.



## REAL-TIME TRANSLATION

Translation was traditionally considered a job in which the magic human touch would always ultimately trump a machine. This may no longer be the case, as AI can now instantly translate from Chinese into English with accuracy comparable to that of a bilingual interpreter. With translations being costly and time-consuming, these AI-related advancements open up far reaching opportunities for the Media and Entertainment industry.



## CONTENT SUGGESTIONS

As user experience personalization becomes more important across all industries, M&E companies are using AI to create personalized services for billions of their customers. M&E specific examples include: recommending content while browsing a video site or shopping online; and optimizing video definition and fluency for users with different internet speeds and bandwidths.

### Challenges:

1. Applying AI solutions to large databases of image and video content are time consuming and resource intensive.
2. New state-of-the-art techniques are being reported on a regular basis which means applied solutions may need to be regularly evaluated and updated.

### Overcome those challenges with Dell's AI solutions below:

Fixed AI Training

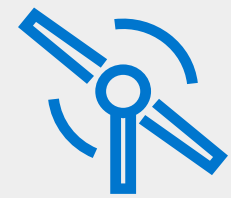
Mobile AI

Remote AI



# Energy

The global energy industry is facing fundamental shifts in the way it generates, sells, and distributes power. There is pressure to cut carbon emissions and, as a result, methods must be found to manage the increasing gigawatts of unpredictable, weather-dependent renewable energy flowing on to power grids. In short, there is a global demand for clean, cheap, reliable energy – and artificial intelligence (AI) is increasingly being used to help meet this need. From analyzing wind patterns, to deducing the most beneficial way to maximize energy production, deep learning is making great strides in energy efficiency. The following are four examples of AI advances that are set for industry disruption.



## UTILITIES

AI is looking to increasingly automate operations over the next several years in the utilities industries, boosting efficiencies across the energy sector.

With recent wind- and solar-generation plant construction, sensor technologies have become an installation priority, resulting in the immediate ability to utilize AI technologies. Primary AI solutions have been in the areas of resource forecasting along with control and predictive maintenance.



## CONSUMPTION DEMAND PREDICTION

Energy Forecasting companies are already incorporating AI into their prediction models. By taking the latest developments in statistical machine learning and deep learning, these companies are creating advanced neural network models that work in harmony with traditional approaches to create new hybrid time series models that outperform classic forecasting methods.



## OIL & GAS PRODUCTION OPTIMIZATION

Energy companies are continuously looking for ways and means to optimize production. One emerging method of doing so incorporates machine learning to process past production data, refine it through statistical analyses, and build improved estimation and prediction models. These AI solutions combine neural networks, known parameters and first principle physics to analyze the overall production system and mitigate hazards while improving operational efficiency.



## AUTONOMOUS MINING

Driverless trucks. Conductor-less trains. Mines run by cell phone networks. Autonomous technologies such as these are taking miners out of mines, out of danger, driving efficiency, and changing the way the mining industry operates. Mining companies across the world are rapidly adopting the latest automation technology to modernize their operations.

### Challenges:

1. Deployment of AI solutions can be challenging based on environmental factors.
2. Harnessing numerous data sources and data integration consolidation is time-consuming and resource intensive.
3. Domain expertise around energy data typically necessary to get most out of AI/ML efforts.

### Overcome those challenges with Dell's AI solutions below:

Fixed AI Training

Mobile AI

Remote AI

# Transportation

The transportation industry's application of AI in mission-critical tasks has been highlighted frequently in the media. Examples include self-driving vehicles carrying passengers and automated transportation of materials. Naturally, AI's involvement in such critical uses draws scrutiny from the public and regulators surrounding the reliability and safety of such AI-powered transportation. Regardless, there are still many significant challenges in the transportation industry that are providing ample high-ROI opportunities for using AI innovation. Capacity problems, safety, reliability, environmental pollution, and waste reduction are all AI use case opportunities. The following are four examples of AI advances that are set to take the transportation industry down a new path.



## AUTONOMOUS PUBLIC TRANSPORT

Small scale autonomous bus trials have been initiated all over the world. The global non-uniformity in city infrastructures, road surfaces, weather patterns, traffic patterns etc. , make AI applications in autonomous vehicles for on-time delivery of people and packages an obvious target for investment. Additionally, such AI technologies will eventually open up opportunities for services to expand to more regions that would otherwise be unprofitable.



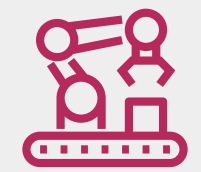
## TRAFFIC MANAGEMENT OPERATIONS

AI solutions have been frequently applied in resolving control and optimization problems, particularly applicable to traffic management. AI is being used in applications like prediction and detection of traffic accidents and conditions by converting traffic sensors into 'intelligent' agents using cameras.



## PREVENTATIVE MAINTENANCE

Highly automated applications of AI technology can predict machine breakdown events days or weeks prior to their actual occurrence, offering the promise of soon making the current regimens of routine preventive maintenance obsolete. These first applications for industrial asset management use the same type of pattern recognition technologies perfected in military scenarios and other mission-critical situations.



## AUTONOMOUS CARGO TRANSPORT

We are now seeing the advent of autonomous trucks, and autonomous trains, which improve the operational efficiency of transport solutions for road and rail. Each vehicle is equipped with sensors and cameras that capture 360° views and valuable telemetry data. This data is then fed to an AI-powered application which aggregates the data, enabling onboard real-time decision-making.

### Challenges:

1. Model Deployment challenges.
2. Data collection and aggregation requires significant resources.
3. The ethics of the AI debate where an AI model finds itself in a no-win situation.

**Overcome those challenges with Dell's AI solutions below:**

Fixed AI Training

Mobile AI

Remote AI



# Entry-Level Data Science and AI Workstation

## Precision 5820 Tower

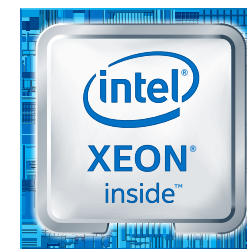
An entry-level single socket workhorse that instantly drives productivity.

**Outstanding Performance** from the *Intel® Xeon®* W-Processor Family of processors.

**Latest GPUs as AI Accelerators** using NVIDIA® Quadro RTX™ cards, up to Quadro RTX™ 8000, providing super-charged deep learning and inference capabilities.

**Memory** capacity up to 512GB ECC memory, allowing fast problem solving in RAM storage.

**Better** net value and security vs. cloud services without processing cycle fee constraints.



### Built for your future.

Your Precision 5820 Tower grows with your ideas no matter where they take you, thanks to a flexible chassis that combines a versatile design with outstanding storage scalability.



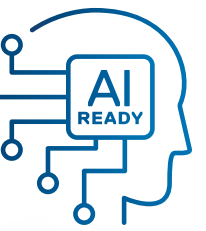
The NVIDIA® Quadro RTX™ 6000 is reinventing the workstation to meet the demands of your AI workflows. It's powered by NVIDIA® Turing, delivering the extreme memory capacity, scalability, and performance that data scientists and deep learning researchers need to train the most complex of deep learning models.



### Perfected to your vision.

Expand your ideas with the Precision 5820 Tower. Featuring high performance in an innovative, versatile compact design.

- Number of CPUs: 1
- CPU: Intel® Xeon® up to 18 cores
- Memory: 128GB 2933MHz
- GPU: NVIDIA® Quadro RTX™ 5000, 6000
- Storage: 1TB NVMe
- Network: 1Gb integrated (10Gb Optional)



## NGC-Ready Systems start AI quickly and run AI faster.

Eliminate the hassles, testing, headaches and guessing that's typically associated with deploying AI software by choosing an NGC-Ready Precision configuration. These systems have been validated and optimized to ensure that your AI hardware and software stack will run fast and without headaches.

NGC-Ready Precision workstations can come from the factory with Ubuntu Linux pre-installed. Dell provides documentation, best practices, and links to the latest Data Science Software Stack from NVIDIA, making it easy to get up and running – especially for users unfamiliar with Data Science or Linux.

[Read the Installation Manual ›](#)



### Dell UltraSharp 32 4K USB-C Monitor | U3219Q

Experience outstanding screen performance on this 31.5" 4K USB-C monitor featuring InfinityEdge and multitasking capabilities.



# Mid-Level Data Science and AI Workstation

## Precision 7920 Tower

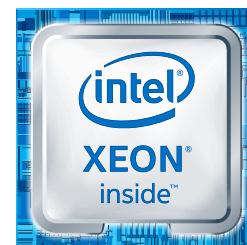
Our mid-level, AI/ML-targeted Precision 7920 Tower offering, ideal for immediate productivity with ample room for growth.

**Outstanding Scalability** using Dell Precision 7000 Series tower or rack workstations.

**Paralleled performance** from the *Intel® Xeon®* Scalable Processor Family containing up to 28 cores per processor.

**Latest GPUs as AI Accelerators** featuring up to 3 NVIDIA® Quadro RTX™ 8000 cards + NVIDIA® NVLink™, providing 96GB of graphics memory for the largest of deep learning data sets and enhanced multiple-card compute performance.

**Massive Memory** capacity up to 3TB of ECC memory, allowing fast problem solving and reliability in RAM storage.



### Max performance. Superior scalability.

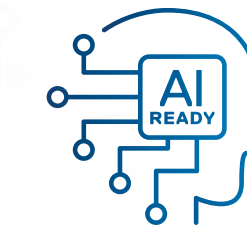
The new AI and Deep Learning enabled Precision 7920 Tower provides ultimate performance and scalability to grow alongside your vision.



- Number of CPUs: 1
- CPU: Intel® Xeon® Gold Class Processors
- Memory: 256GB 2933MHz ECC
- GPU: 2x NVIDIA® Quadro RTX™ 6000 + NVIDIA® NVLink™
- Storage (Boot): 1TB NVMe
- Storage 1 (Fast): 2 1TB NVMe
- Storage 2 (Archive): 12TB HDD
- Network: 1Gb integrated (10Gb Optional)



The NVIDIA® Quadro RTX™ 6000 and NVIDIA® NVLink™ are reinventing the workstation to meet the demands of your AI workflows. It's powered by NVIDIA® Quadro RTX™, delivering the extreme memory capacity, scalability, and performance that data scientists and deep learning researchers need to train the most complex of deep learning models.



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[Read the Installation Manual ›](#)



### Dell UltraSharp 32 4K USB-C Monitor | U3219Q

Experience outstanding screen performance on this 31.5" 4K USB-C monitor featuring InfinityEdge and multitasking capabilities.



# Ultra Performance Data Science and AI Workstation Precision 7920 Tower

Our ultimate Precision 7920 Tower Deep Learning offering with massive amounts of compute, storage, and memory for the most demanding AI/ML training tasks.

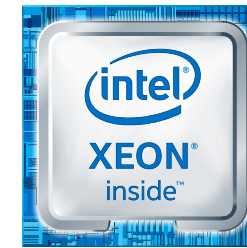
**Outstanding Scalability** using Dell Precision 7000 Series tower or rack workstations.

**Paralleled performance** from the *Intel® Xeon®* Scalable Processor Family containing up to 28 cores per processor.

**Latest GPUs as AI Accelerators** featuring up to 3 NVIDIA® Quadro RTX™ 8000 cards + NVIDIA® NVLink™, providing 96GB of graphics memory for the largest of deep learning data sets and enhanced multiple-card compute performance.

**Massive Memory** capacity up to 3TB allowing fast problem solving in RAM storage.

**Better** net value and security vs. cloud services without processing cycle fee constraints.



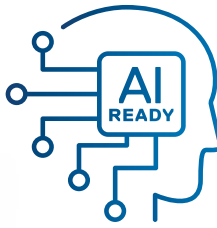
## Max performance. Superior scalability.

The new AI and Deep Learning enabled Precision 7920 Tower provides ultimate performance and scalability to grow alongside your vision.

- Number of CPUs: 2
- CPU: 20 core Intel® Xeon®
- Memory: 768GB 2933MHz ECC
- GPU: 2x NVIDIA® Quadro RTX™ 8000 + NVIDIA® NVLink™
- Storage (Boot): 2TB NVMe
- Storage 1 (Fast): 2x2TB NVMe
- Storage 2 (Archive): 12TB HDD
- Network: 1Gb integrated (2x10Gb Optional)



The NVIDIA® Quadro RTX™ 8000 and NVIDIA® NVLink™ are reinventing the workstation to meet the demands of your AI workflows. It's powered by NVIDIA® Quadro RTX™, delivering the extreme memory capacity, scalability, and performance that data scientists and deep learning researchers need to train the most complex of deep learning models.



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[Read the Installation Manual ›](#)



### Dell UltraSharp 49 Curved Monitor | U4919DW

A revolutionary 49" dual QHD curved monitor with ultra wide views, multitasking features and seamless connectivity for an immersive work experience.



# Entry-Level Mobile Data Science and AI Workstation Precision 7550

The world's most powerful  
15" mobile workstation\* –  
now AI Ready!

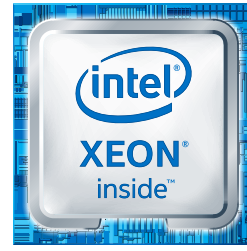
**High Performance CPU** from the 10th generation *Intel® Core™ and Xeon® Processors*.

**Powerful GPUs** as AI accelerators, up to *NVIDIA® Quadro RTX™ 5000*.

**High Memory** capacity in a mobile form factor with up to 128GB, allowing fast problem solving in RAM and up to 4 physical storage devices.

**Perfect for on-the-go** parameter exploration and transfer learning.

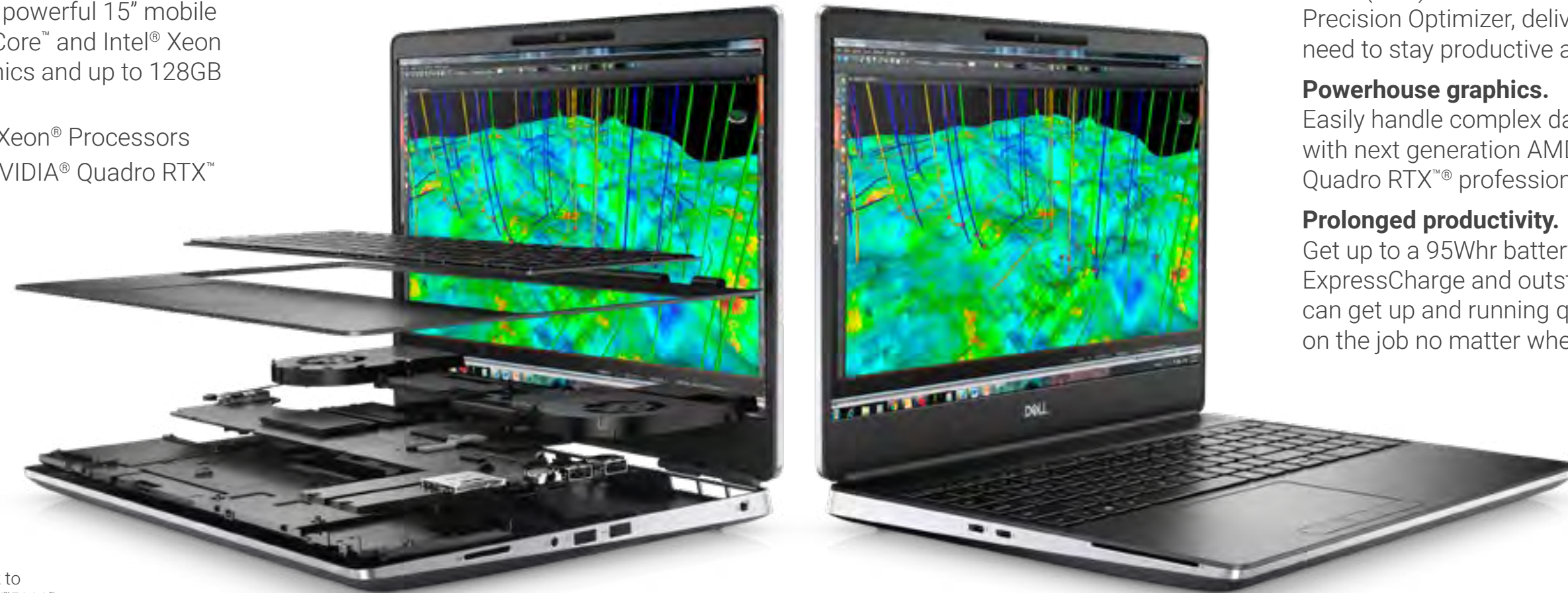
**Dell Precision:** Enterprise Class Quality, Performance, and Reliability backed by Dell Support and Service.



## Amplify with superior power.

Take work further with the world's most powerful 15" mobile workstation. It features 10th gen Intel® Core™ and Intel® Xeon processors, NVIDIA® Quadro RTX™ graphics and up to 128GB of ECC Memory.

- CPU: 10th generation Intel® Core™ and Xeon® Processors
- Memory: 64GB 2933MHz ECC GPU: NVIDIA® Quadro RTX™ 4000 or 5000
- Storage: up to 3 NVMe SSDs



\*When equipped with Intel® Xeon® W-10885M (2.40 GHz to 5.30 GHz), 128GB ECC/nECC RAM, NVIDIA Quadro® RTX™ 5000™ (16G) graphics running at 80W. Based on Dell analysis of competitive products using publicly available data, March 2020.

## Extract maximum power.

The latest Intel® Core™ or Intel® Xeon® processors, with up to 8-cores, available with Error Correcting Code (ECC) available memory, combined with Dell Precision Optimizer, deliver the focused power you need to stay productive anywhere.

## Powerhouse graphics.

Easily handle complex data-intensive workflows with next generation AMD Radeon Pro™ and NVIDIA Quadro RTX™ professional graphics.

## Prolonged productivity.

Get up to a 95Whr battery that features ExpressCharge and outstanding battery life, so you can get up and running quickly, and stay productive on the job no matter where you need to be.



## NGC-Ready Systems start AI quickly and run AI faster.

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[Read the Installation Manual ›](#)



## Dell Professional Dock | WD19DC

Dell's most powerful dock\* delivers the ultimate productivity experience. Charge your system faster, support up to four 4K displays and connect to your peripherals via a single cable with dual USB-C connectors for up to 230W of power delivery.

\*When used with Dell systems with Type-C. Based on Dell internal analysis of competitive products using publicly available data as of February 2019.



## Dell UltraSharp 27 4K Monitor

is the world's first 27" 4K monitor with InfinityEdge. See stunning colors and pixel perfect details on a virtually borderless display.



# Ultra Mobile Data Science and AI Workstation

Precision 7750

World's most powerful mobile workstation\* is also the most intelligent – now AI-ready!

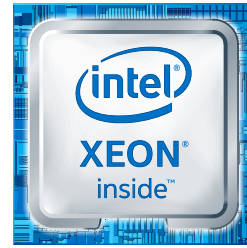
**High Performance CPU** 10th generation Intel® Core™ and Xeon® Processors.

**Powerful GPU** compute with NVIDIA® Quadro RTX™ 3000, 4000, or 5000.

**High Memory** and storage capacity in a mobile form factor with up to 128GB ECC memory, allowing fast problem solving in RAM and up to 4 physical storage devices.

**Perfect for on-the-go** parameter exploration and transfer learning.

**Dell Precision:** Enterprise Class Quality, Performance, and Reliability backed by Dell Support and Service.



## Superior power. Slim design.

Dell's most powerful\* 17" mobile workstation is ideal if you're working on-the-go on projects with large complexity. Redesigned to be thinner, lighter and Ready for AI. Featuring the latest 10th Gen Intel® Core™ and Xeon® processors, NVIDIA® Quadro RTX™ graphics, up to 128GB memory and a chassis capable of supporting up to four storage drives for extra flexibility.

- CPU: 10th generation Intel® Core™ and Xeon® Processors.
- Memory: 128GB ECC Memory
- GPU: NVIDIA® Quadro RTX™ 3000, 4000, 5000
- Storage: 4 x 2TB NVMe SSDs



\*When equipped with Intel® Xeon® W-10885M (2.40 GHz to 5.30 GHz), 128GB ECC/nECC RAM and NVIDIA® Quadro RTX™ 5000 (16GB) graphics running at 110W. Based on Dell analysis of competitive products using publicly available data, March 2020.

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The latest Intel® Core™ or Intel® Xeon® processors, with up to 8-cores, available with Error Correcting Code (ECC) available memory, combined with Dell Precision Optimizer, deliver the focused power you need to stay productive anywhere.

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Easily handle complex data-intensive workflows with next generation AMD Radeon Pro™ and NVIDIA® Quadro RTX™ professional graphics.

## Prolonged productivity.

Get up to a 95Whr battery that features ExpressCharge and outstanding battery life, so you can get up and running quickly, and stay productive on the job no matter where you need to be.



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[Read the Installation Manual ›](#)



## Dell Performance Dock | WD19DC

Boost your PC's power up to 210W on the World's most powerful\* dual USB-C dock. Get the flexibility you need with magnetically separable USB-C cables.

\*Based on Dell internal analysis of competitive products using publicly available data as of February 2019. Power Delivery of up to 210W when used with compatible Dell systems.



## Dell UltraSharp 27 4K Monitor

is the world's first 27" 4K monitor with InfinityEdge. See stunning colors and pixel perfect details on a virtually borderless display.



# Remote Data Science and AI Workstation

## Precision 7920 Rack

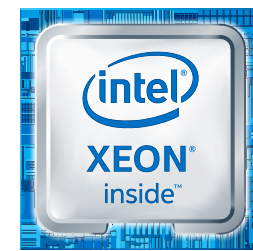
If data science is a team sport, this is your Olympic arena.

**Outstanding Performance** using Dell Precision 7000 Series Rack workstations.

**Extreme performance** from one or two *Intel® Xeon® Scalable Processor Family* containing up to 28 cores per processor

**Triple GPUs as AI Accelerators** featuring *NVIDIA® Quadro RTX™ 8000* providing 144GB of graphics memory for larger data science data sets and enhanced dual-card compute performance.

**Massive Memory** capacity up to 3TB of ECC memory allowing fast problem solving and extreme reliability.



### No project is too big.

The Precision 7920 Rack grows with your ideas no matter where they take you, thanks to a new FlexBay design that combines a versatile chassis with outstanding storage scalability.



### Develop remotely and on your terms.

A shared workstation makes sense for a number of reasons: some staff prefer to carry systems too thin and lite for data science jobs, others are unfamiliar with operating systems data science typically runs on, some won't want their systems tied up for hours or days training models – the Precision 7920 rack addresses all of these scenarios. The Precision 7920 workstation delivers the highest level of secure remote access, unleashing ultimate AI and data science performance that can be shared easily and efficiently by your team.

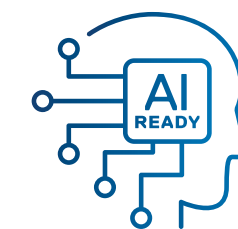
### Give up nothing when physical security or remote working is required.

The Precision 7920 Rack takes your workstation user experience to a secure rack adjacent to your workspace or server location across the campus or the world. All that with the same performance you get in the 7920 Tower.

- Number of CPUs: 2
- CPU: Intel® Xeon® Silver 8 Cores (up to 28 cores per processor)
- Memory: 192GB 2933MHz
- GPU: 3x NVIDIA® Quadro RTX™ 6000 or RTX™8000
- Storage (Boot): NVMe 1TB SSD
- Storage 1 (Fast): 2 x NVMe 1TB SSD
- Network: 1+4 1Gb integrated (2 x 10Gb optional)
- Remote access/management: Ubuntu Linux's inherently remote login, Wyse & Teradici PCoIP, Dell iDRAC options



The NVIDIA® Quadro RTX™ 8000 is designed to meet the requirements of demanding data science workflows. Powered by NVIDIA® Quadro RTX™, delivering the extreme memory capacity, stability, and performance data scientists need to gain insights more quickly than ever before.



## NGC-Ready Systems start AI quickly and run AI faster.

Eliminate the hassles, testing, headaches and guessing that's typically associated with deploying AI software by choosing an NGC-Ready Precision configuration. These systems have been validated and optimized to ensure that your AI hardware and software stack will run fast and without headaches.

NGC-Ready Precision workstations can come from the factory with Ubuntu Linux pre-installed. Dell provides documentation, best practices, and links to the latest Data Science Software Stack from NVIDIA, making it easy to get up and running – especially for users unfamiliar with Data Science or Linux.

[Read the Installation Manual ›](#)





# Dell AI Customer Stories

Click the buttons below

