Catalog

NVIDIA Training Course Catalog

May 2024

Introduction

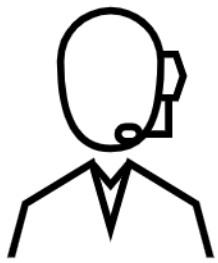
NVIDIA offers training for diverse needs, giving individuals and teams across organizations what they need to advance their knowledge in AI, accelerated computing, data science, data center administration, graphics and simulation, networking, and more.

With access to high-performance computing, you'll learn how to train, optimize, and deploy neural networks using the latest deep learning tools, frameworks, and SDKs. You'll also learn how to assess, parallelize, optimize, and deploy GPU-accelerated computing applications.

Our training program offers both self-paced online courses and instructor-led, prescheduled workshops. The self-paced courses range from 10 minutes to 8 hours and guide you through applying a specific technology, setting up a project, or administering solutions in a data center. Instructor-led workshops and boot camps go deeper into topic areas, teaching you how to implement a project or solution from end to end. Both types of courses give you valuable hands-on experience using the latest technologies.

Why Choose NVIDIA for Training?

- Learn how to build deep learning and accelerated computing applications for industries such as healthcare, robotics, autonomous driving, manufacturing, and more.
- Gain hands-on experience with the most widely used, industry-standard platforms including software, hardware, tools, and frameworks. Each student will have access to a fully configured, GPU-accelerated server in the cloud or access to NVIDIA solutions in our training lab.
- Become proficient in administering NVIDIA hardware and software solutions such as DGX™, InfiniBand, Cumulus, NVIDIA AI Enterprise, and more.
- Access instructor-led workshops and online courses from anywhere using just a laptop and internet connection.
- Acquire real-world expertise through content designed in collaboration with industry leaders such as Children's Hospital of Los Angeles, Mayo Clinic, and PwC.
- Earn NVIDIA certifications and course completion certificates to indicate subject matter competency and support your career growth.



For team training, contact an **NVIDIA training advisor**, who will work with you to create a customized plan that addresses your team's specific training needs and is aligned to your business objectives and priorities.

Table of Contents

Instructor-Led Workshops for Developers

Online, Self-Paced Courses for Developers

Infrastructure

Instructor-Led Workshops for Administrators

AI and Data Science

Cluster Administration

Ethernet Cumulus

InfiniBand

NVIDIA DGX

Virtualization

Online, Self-Paced Courses for Administrators

Certifications

Instructor-Led Workshops for Developers

Workshop Name	Description	Prerequisites

Accelerated Computing

Accelerating CUDA® C++ Applications With Multiple GPUs

Discover how to write CUDA C++ applications that efficiently and correctly use all available GPUs in a single node, dramatically improving the performance of applications and making the most cost-effective use of systems with multiple GPUs.

> Learn More

Professional experience programming CUDA C/C++ applications, including the use of the NVIDIA CUDA Compiler (NVCC), kernel launches, grid-stride loops, host-to-device and device-to-host memory transfers, and CUDA error handling. Familiarity with the Linux command line and experience using makefiles to compile C/C++ code.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
CUDA C++, NVCC, Nsight Systems	English, Simplified Chinese	8 hours	$500 (excludes tax, if applicable)	Yes

Fundamentals of Accelerated Computing With CUDA C/C++

Learn how to accelerate and optimize existing C/C++ CPU-only applications to apply the power of GPUs using the most essential CUDA techniques and the NVIDIA Nsight Systems profiler.

> Learn More

Basic C/C++ competency, including familiarity with variable types, loops, conditional statements, functions, and array manipulations. No previous knowledge of CUDA programming is assumed.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
NVIDIA Nsight Systems, nsys	English, Korean, Japanese, Simplified Chinese, Traditional Chinese	8 hours	$500 (excludes tax, if applicable)	Yes

Fundamentals of Accelerated Computing With CUDA Python

Explore how to use Numba—the just-in-time, type-specializing Python function compiler—to create and launch CUDA kernels to accelerate Python programs on massively parallel NVIDIA GPUs.

> Learn More

Basic Python competency, including familiarity with variable types, loops, conditional statements, functions, and array manipulations. Also, must have NumPy competency, including the use of ndarrays and ufuncs.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
CUDA, Python, Numba, NumPy	English, Simplified Chinese, Traditional Chinese	8 hours	$500 (excludes tax, if applicable)	Yes

Fundamentals of Accelerated Computing With OpenACC®

Find out how to write and configure code parallelization with OpenACC, optimize memory movements between the CPU and GPU accelerator, and apply the techniques to accelerate a CPU-only Laplace heat equation to achieve performance gains.

> Learn More

Basic C/C++ or Fortran competency, including familiarity with variable types, loops, conditional statements, functions, and array manipulations. No previous knowledge of GPU programming is assumed.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
NVIDIA Nsight, OpenACC	English	8 hours	$500 (excludes tax, if applicable)	Yes

Back

Workshop Name	Description	Prerequisites			
Scaling CUDA C++ Applications to Multiple Nodes	Learn the tools and techniques needed to write CUDA C++ applications that can scale efficiently to clusters of NVIDIA GPUs. > Learn More	Intermediate experience writing CUDA C/C++ applications.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	C++, CUDA, MPI, NVSHMEM	English, Simplified Chinese	8 hours	$500 (excludes tax, if applicable)	Yes

Data Science

Accelerating Data Engineering Pipelines	Explore how to employ advanced data engineering tools and techniques with GPUs to significantly improve data engineering pipelines. > Learn More	Intermediate knowledge of **Python** (list comprehension, objects). Familiarity with **pandas** and **introductory statistics** (mean, median, mode) a plus.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	pandas, cuDF, Dask, NVTabular, Plotly	English	8 hours	$500 (excludes tax, if applicable)	Yes
Enhancing Data Science Outcomes With Efficient Workflows	Learn how to create an end-to-end, hardware-accelerated machine learning pipeline for large datasets. Throughout the development process, you'll use diagnostic tools to identify delays and learn to mitigate common pitfalls. > Learn More	> Basic knowledge of a standard data science workflow on tabular data. > Knowledge of distributed computing using Dask. > Completion of the DLI's Fundamentals of Accelerated Data Science course or an ability to manipulate data using cuDF and some experience building machine learning models using cuML.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	Python, cuDF, Dask, Plotly, NVTabular, cuML, Forest Inference Library, PyTorch, and NVIDIA Triton™ Inference Server	English	8 hours	$500 (excludes tax, if applicable)	Yes
Fundamentals of Accelerated Data Science	Learn how to perform multiple analysis tasks on large datasets using NVIDIA RAPIDS™, a collection of data science libraries that allows end-to-end GPU acceleration for data science workflows. > Learn More	Professional data science experience with Python, including proficiency in pandas and NumPy. Also, must have familiarity with common machine learning algorithms, including XGBoost, linear regression, DBSCAN, K-Means, and SSSP.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	RAPIDS, cuDF, XGBoost, cuML, cuGraph, Dask, cuPy, pandas, NumPy, Bokeh	English, Traditional Chinese, Japanese	8 hours	$500 (excludes tax, if applicable)	Yes

Back

Deep Learning

Applications of AI for Anomaly Detection

Learn to detect anomalies in large datasets to identify network intrusions using supervised and unsupervised machine learning techniques, such as accelerated XGBoost, autoencoders, and generative adversarial networks (GANs).

Prerequisites: Experience with convolutional neural networks (CNNs) and Python.

> **Learn More**

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
RAPIDS, XGBoost, TensorFlow, Keras, pandas, autoencoders, GANs	English	8 hours	$500 (excludes tax, if applicable)	Yes

Applications of AI for Predictive Maintenance

Discover how to identify anomalies and failures in time-series data, estimate the remaining useful life of the corresponding parts, and use this information to map anomalies to failure conditions.

Prerequisites: Experience with Python and deep networks.

> **Learn More**

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
Python, TensorFlow, Keras, XGBoost, RAPIDS, cuDF, long short-term memory (LSTM), autoencoders	English, Simplified Chinese	8 hours	$500 (excludes tax, if applicable)	Yes

Building AI-Based Cybersecurity Pipelines

Traditional cybersecurity methods include creating barriers around your infrastructure to protect it from intruders. However, as enterprises continue to digitally transform, they're faced with a proliferation of devices, more sophisticated cybersecurity attacks, and an incredibly vast network of data to protect—which means new cybersecurity methodologies must be explored. An alternative approach is to address cybersecurity as a data science problem: Better understand all the users and activities across your network so that you can identify which transactions are typical and which are potentially nefarious.

The **NVIDIA Morpheus AI framework** lets cybersecurity developers and practitioners harness the power of GPU computing to implement cybersecurity solutions that perform on a scale never before possible. With Morpheus, cybersecurity developers can create optimized AI pipelines for filtering, processing, and classifying large volumes of real-time data. Bringing a new level of information security to data centers, Morpheus enables dynamic protection, real-time telemetry, and adaptive defenses for detecting and remediating cybersecurity threats.

Prerequisites:

- >
- Professional data science and/or data analysis experience.
- Competency with the Python programming language.
- Competency with the Linux command line.

> **Learn More**

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
NVIDIA Morpheus, NVIDIA Triton Inference Server, RAPIDS, CLX, Helm, Kubernetes	English	8 hours	$500 (excludes tax, if applicable)	Yes

Back

Workshop Name	Description	Prerequisites			
Building Conversational AI Applications V2.0	Discover how to quickly build and deploy production-quality speech AI applications with real-time transcription and natural language processing capabilities. > **Learn More**	Experience with Python coding and use of library functions and parameters. Also, a fundamental understanding of a deep learning framework, such as TensorFlow, PyTorch, or Keras, and a basic understanding of neural networks.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	NVIDIA Riva, NVIDIA TAO Toolkit, Kubernetes	English	8 hours	$500 (excludes tax, if applicable)	Yes
Building Deep Learning-Based Anti-Fraud Applications (Chinese only)	This course is primarily for data scientists and professionals working in the field of financial fraud modeling in banks. It teaches how to train, accelerate, and optimize fraud detection classifiers based on machine learning and deep learning. > **Learn More**	> Basic Python programming experience. > Fundamental understanding of deep learning frameworks (such as TensorFlow, PyTorch, or Keras). > Basic knowledge of neural networks.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	RAPIDS, CuPy, PyTorch, Deep Graph Library, NVIDIA NeMo™, NVIDIA Triton Inference Server	Simplified Chinese	8 hours	$500 (excludes tax, if applicable)	Yes
Building Transformer-Based Natural Language Processing	In this workshop, you'll learn how Transformers are used as the building blocks of modern large language models (LLMs). You'll then use these models for various NLP tasks, including text classification, named-entity recognition (NER), author attribution, and question answering. You'll also learn how to analyze various model features, constraints, and characteristics to determine which model is best suited for a particular use case based on metrics, domain specificity, and available resources. > **Learn More**	Experience with Python coding and use of library functions and parameters. Fundamental understanding of a deep learning framework, such as TensorFlow, PyTorch, or Keras. And basic understanding of neural networks.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	PyTorch, pandas, NVIDIA NeMo, NVIDIA Triton Inference Server	English, Simplified Chinese	8 hours	$500 (excludes tax, if applicable)	Yes
Computer Vision for Industrial Inspection	In this workshop, you'll learn how to quickly develop and deploy a machine learning model that uses deep learning for computer vision to perform defect classification and other visual recognition tasks. Using NVIDIA's own real production dataset as an example, this workshop illustrates how the solution can be easily applied to a variety of manufacturing and industrial inspection use cases. > **Learn More**	> Experience with Python; basic understanding of data processing and deep learning > To gain experience with Python, we suggest this **Python tutorial** > For a basic understanding of data processing and deep learning, we suggest **Fundamentals of Deep Learning.**			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	Python, pandas, DALI, NVIDIA TAO Toolkit, NVIDIA TensorRT™, and NVIDIA Triton Inference Server	English, Simplified Chinese	8 hours	$500 (excludes tax, if applicable)	Yes

Back

Workshop Name	Description	Prerequisites
Data Parallelism: How to Train Deep Learning Models on Multiple GPUs	This workshop teaches you techniques for data-parallel deep learning training on multiple GPUs to shorten the training time required for data-intensive applications. Working with deep learning tools, frameworks, and workflows to perform neural network training, you'll learn how to decrease model training time by distributing data to multiple GPUs, while retaining the accuracy of training on a single GPU. > **Learn More**	Experience with deep learning training using Python. See the Fundamentals of Deep Learning self-paced course **here**.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
PyTorch, PyTorch Distributed Data Parallel, NCCL	English, Simplified Chinese	8 hours	$500 (excludes tax, if applicable)	Yes

Workshop Name	Description	Prerequisites
Fundamentals of Deep Learning	Learn how deep learning works through hands-on exercises in computer vision and natural language processing (NLP). You'll train deep learning models from scratch and pick up tricks and tools for achieving highly accurate results along the way. You'll also learn to leverage freely available, state-of-the-art pretrained models to save time and get your deep learning application up and running quickly. > **Learn More**	An understanding of fundamental programming concepts in **Python 3**, such as functions, loops, dictionaries, and arrays. Also, familiarity with **pandas data structures** and an understanding of how to compute a **regression line**. > Suggested materials to satisfy prerequisites: **Python Beginner's Guide**

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
Tensorflow, Keras, pandas, NumPy	English, Simplified Chinese, Japanese	8 hours	$500 (excludes tax, if applicable)	Yes

Workshop Name	Description	Prerequisites
Model Parallelism: Building and Deploying Large Neural Networks	In this workshop, you'll learn how to scale training and deployment of LLMs and neural networks across multiple nodes, use various forms of model parallelism to overcome the challenges associated with large-model memory footprint, capture and understand training performance characteristics to optimize model architecture and deploy very large multi-GPU, multi-node models to production using NVIDIA Triton™ Inference Server. > **Learn More**	> Good understanding of **PyTorch**, **deep learning**, and **data parallel** training concepts > Practice with **multi-GPU training** and **natural language processing** is useful, but optional.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
PyTorch, Megatron-LM, DeepSpeed, Slurm, NVIDIA Triton Inference Server, NVIDIA Nsight	English, Korean, Simplified Chinese	8 hours	$500 (excludes tax, if applicable)	Yes

Generative AI and Large Language Models (LLMs)

Workshop Name	Description	Prerequisites
Building RAG Agents With LLMs	Learn how to design retrieval-augmented generation (RAG) systems and bundle them into deliverable formats. Along the way, you'll learn advanced LLM composition techniques for internal reasoning, dialog management, and tooling. > **Learn More**	> Introductory deep learning, with comfort with PyTorch and transfer learning preferred. > Intermediate Python experience, including object-oriented programming and libraries.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
Python, LangChain, NVIDIA AI Foundation endpoints, FAISS, Gradio, LangServe, FastAPI	English	8 hours	$500 (excludes tax, if applicable)	Yes

Back

Workshop Name	Description	Prerequisites
Building Transformer-Based Natural Language Processing Application	Learn how to apply and fine-tune a transformer-based deep learning model to natural language processing (NLP) tasks. > Learn More	> Experience with Python coding and use of library functions and parameters. > Fundamental understanding of a deep learning framework such as TensorFlow, PyTorch, or Keras. > Basic understanding of neural networks.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
PyTorch, pandas, NVIDIA NeMo, NVIDIA Triton Inference Server	English	8 hours	$500 (excludes tax, if applicable)	Yes

Workshop Name	Description	Prerequisites
Efficient Large Language Model Customizations	Learn a variety of techniques to efficiently customize pretrained LLMs for your specific use cases—without engaging in the computationally intensive and expensive process of pretraining your own model or fine-tuning a model's internal weights. Using the open-source NVIDIA NeMo framework, you'll learn prompt engineering and various parameter-efficient fine-tuning methods to customize LLM behavior for your organization. > Learn More	> Professional experience with the Python programming language. > Familiarity with fundamental deep learning topics like model architecture, training and inference. > Familiarity with a modern Python-based deep learning framework (PyTorch preferred). > Familiarity working with out-of-the-box pretrained LLMs.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
Python, NVIDIA NeMo, GPT, LLaMA, HuggingFace	English	8 hours	$500 (excludes tax, if applicable)	Yes

Workshop Name	Description	Prerequisites
Generative AI With Diffusion Models	Get started with gen AI application development with this hands-on course where you'll learn how to build a text-to-image generative AI application using the latest techniques. Generate images with diffusion models and refine the output with various optimizations. Build a denoising diffusion model from the U-Net architecture to context embeddings for greater user control. > Learn More	> Good understanding of **PyTorch** > Good understanding of **deep learning**

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
PyTorch, CLIP	English	8 hours	$500 (excludes tax, if applicable)	Yes

Workshop Name	Description	Prerequisites
Rapid Application Development Using Large Language Models	In this course, you'll gain a strong understanding and practical knowledge of LLM application development by exploring the open-source ecosystem, including pretrained LLMs, that can help you get started quickly developing LLM-based applications. > Learn More	> Introductory deep learning, with comfort with PyTorch and transfer learning preferred. Content covered by DLI's Getting Started With Deep Learning or Fundamentals of Deep Learning courses, or similar experience is sufficient. > Intermediate Python experience, including object-oriented programming and libraries. Content covered by Python Tutorial (**w3schools.com**) or similar experience is sufficient.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
Python, PyTorch, HuggingFace, transformers, LangChain, LlamaIndex	English	8 hours	$500 (excludes tax, if applicable)	Yes

Back

Workshop Name	Description	Prerequisites
Graphics and Simulation		
Bootstrapping Computer Vision Models with Synthetic Data	Learn how to use NVIDIA Omniverse Replicator, a core Omniverse extension, to accelerate the development of computer vision models. Generate accurate, photorealistic, physics-conforming synthetic data to ease the expensive, time-consuming task of labeling real-world data. Omniverse Replicator accelerates AI development at scale and reduces time to production. > Learn More	> Intermediate understanding of Python (including classes, objects, and decorators). > Basic understanding of Machine Learning and Deep Learning concepts and pipelines.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
Omniverse Replicator, Omniverse Defect Extension	English	8 hours	$500 (excludes tax, if applicable)	Yes

Workshop Name	Description	Prerequisites
Building Digital Avatar Pipelines With NVIDIA Omniverse Audio2Face and Riva (Chinese only)	This course, from an end-to-end application development perspective, will provide you with detailed guidance on how to use NVIDIA Omniverse Audio2Face and the interactive speech suite Riva to build virtual digital humans. > Learn More	> Basic Python programming experience. > Fundamental understanding of deep neural networks.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
NVIDIA Omniverse Audio2Face, NVIDIA Riva, PyTorch	Simplified Chinese	8 hours	$500 (excludes tax, if applicable)	Yes

Back

Online, Self-Paced Courses for Developers

Accelerated Computing Fundamentals

Course Name	Description	Prerequisites	Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
Accelerating CUDA C++ Applications With Concurrent Streams	Discover how to improve performance for your CUDA C/C++ applications by overlapping memory transfers to and from the GPU with computations on the GPU. > Learn More	Professional experience programming CUDA C/C++ applications, including the use of the nvcc compiler, kernel launches, grid-stride loops, host-to-device and device-to-host memory transfers, and CUDA error handling; Experience using Makefiles to compile C/C++ code.		English	4 hours	$30 (excludes tax, if applicable)	Yes
An Even Easier Introduction to CUDA	Learn the basics of writing parallel CUDA kernels to run on NVIDIA GPUs. > Learn More	Competency writing applications in CUDA C/C++.	C/C++	English	1 hour	Free	N/A
Fundamentals of Accelerated Computing With CUDA Python	Explore how to use Numba—the just-in-time, type-specializing Python function compiler—to create and launch CUDA kernels to accelerate Python programs on massively parallel NVIDIA GPUs. > Learn More	Basic Python competency, including familiarity with variable types, loops, conditional statements, functions, and array manipulations. Also, must have NumPy competency, including the use of ndarrays and ufuncs.	CUDA, Python, Numba, NumPy	English, Simplified Chinese, Traditional Chinese	8 hours	$90 (excludes tax, if applicable)	Yes
Fundamentals of Accelerated Computing With OpenACC	Find out how to build and optimize accelerated heterogeneous applications on multiple GPU clusters using a combination of OpenACC, CUDA-aware MPI, and NVIDIA profiling tools. > Learn More	Basic experience with C/C++	OpenACC, C/C++	English	8 hours	$90 (excludes tax, if applicable)	N/A
Getting Started With Accelerated Computing With CUDA C/C++	Discover how to accelerate and optimize existing C/C++ CPU-only applications to leverage the power of GPUs using the most essential CUDA techniques and the Nsight Systems profiler. > Learn More	Basic C/C++ competency, including familiarity with variable types, loops, conditional statements, functions, and array manipulations. No previous knowledge of CUDA programming is assumed.	C/C++, CUDA	English, Japanese, Korean, Simplified Chinese, Traditional Chinese	8 hours	$90 (excludes tax, if applicable)	Yes

Back

Course Name	Description	Prerequisites			
GPU Acceleration With the C++ Standard Library	Learn to write simple, portable, parallel-first applications using only standard C++ language features that can be compiled without modification to take advantage of NVIDIA GPU-accelerated environments. **> Learn More**	Beginner-level experience with **C++11**. Comfort working with **C++ lambdas and standard library algorithms**.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	C++, **NVIDIA HPC SDK**	English	2 hours	$30 (excludes tax, if applicable)	N/A
Optimizing CUDA Machine Learning Codes With NVIDIA Nsight™ Profiling Tools	NVIDIA Developer Tools are a collection of applications, spanning desktop and mobile targets, that enable developers to build, debug, profile, and develop class-leading and cutting-edge software using the latest visual computing hardware from NVIDIA. In this course, you'll learn the effective use of two powerful NVIDIA developer tools: **Nsight Systems** and **Nsight Compute**. Nsight Systems provide developers with a system-wide visualization of an application's performance. Developers can optimize bottlenecks to scale efficiently across any number or size of CPU and GPU—from large servers to the smallest systems on chip. Nsight Compute is an interactive kernel profiler for CUDA applications. It provides detailed performance metrics and API debugging via a user interface and command-line tool. By the time you complete this course, you'll be able to use Nsight Systems and Nsight Compute to analyze and optimize CUDA applications. Following best practices, you'll begin by using Nsight Systems to analyze overall application structure and explore parallelization opportunities before turning to Nsight Compute to analyze and optimize individual CUDA kernels. **> Learn More**	Familiarity with machine learning applications using CUDA. We suggest **Fundamentals of Accelerated Computing with CUDA C/C++.**			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	NVIDIA Nsight Systems, **NVIDIA Nsight Compute**	English	2 hours	$30 (excludes tax, if applicable)	N/A
Scaling GPU-Accelerated Applications With the C++ Standard Library	In this interactive, hands-on workshop, which is the followup to GPU Acceleration With the C++ Standard Library, you'll learn how to write scalable, GPU-accelerated, hybrid applications using C++ standard language features alongside MPI. **> Learn More**	Beginner-level experience with C++11; comfort working with C++ lambdas and standard library algorithms; experience developing C++/MPI hybrid applications that require inter-rank communication; comfort working with C++ concurrency primitives such as std::thread, std::barrier, and andstd::thread.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	C++, NVIDIA HPC SDK, MPI	English	2 hours	$30 (excludes tax, if applicable)	N/A

Back

Course Name	Description	Prerequisites			
Scaling Workloads Across Multiple GPUs With CUDA C++	Learn how to build robust and efficient CUDA C++ applications that can take advantage of all available GPUs on a single node. > Learn More	Competency writing applications in CUDA C/C++.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	C/C++, accelerated computing, CUDA	English	4 hours	$30 (excludes tax, if applicable)	Yes

Data Science

Accelerate Data Science Workflows With Zero Code Changes	In this workshop, you'll learn to use RAPIDS to speed up your CPU-based data science workflows. > Learn More	Basic understanding of data processing and knowledge of a standard data science workflow on tabular data. Experience using common Python libraries for data analytics.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	CUDA, MPI, NVSHMEM	English, Simplified Chinese	6 hours	$90 (excludes tax, if applicable)	Yes
Accelerating End-to-End Data Science Workflows	Explore how to perform multiple analysis tasks on large datasets using RAPIDS, a collection of data science libraries that allows end-to-end GPU acceleration for data science workflows. > Learn More	Experience with Python, ideally including pandas and NumPy.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	RAPIDS, cuDF, cuML, cuGraph, Apache Arrow	English, Simplified Chinese	6 hours	$90 (excludes tax, if applicable)	Yes
RAPIDS Accelerator for Apache Spark	In this training lab, we'll walk through the RAPIDS Accelerator for Apache Spark, including running SQL queries on CPU and GPU in Spark and diving into the toolset that helps enable success. > Learn More	> Basic experience with Linux terminal commands. > Basic experience with Python > Basic experience with Spark, PySpark, or pandas			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	RAPIDS, Spark	English	2 hours	$30 (excludes tax, if applicable)	N/A

Deep Learning

Building a Brain in 10 Minutes	This one-click notebook explores the biological and psychological inspirations for the world's first neural networks. > Learn More	An understanding of fundamental programming concepts in Python 3 such as functions, loops, dictionaries, and arrays.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	N/A	English	10 minutes	Free	N/A

Back

Course Name	Description	Prerequisites			
Building Real-Time Video AI Applications	Gain the knowledge and skills needed to enable the real-time transformation of raw video data from widely deployed camera sensors into deep learning-based insights. > **Learn More**	Competency in the Python 3, programming language, some experience manipulating data using pandas DataFrames, and familiarity with deep networks (specifically variations of CNNs).			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	NVIDIA DeepStream, NVIDIA TAO Toolkit, and NVIDIA TensorRT	English, Simplified Chinese	8 hours	$90.00 (excludes tax, if applicable)	N/A
Deploying a Model for Inference at Production Scale	Learn how to deploy your own machine learning models on a GPU server. > **Learn More**	Familiarity with at least one machine learning framework, such as PyTorch, TensorFlow, ONNX, or TensorRT.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	NVIDIA Triton	English	4 hours	$30 (excludes tax, if applicable)	N/A
Digital Fingerprinting With Morpheus	In this course, you'll get hands-on experience developing and deploying the NVIDIA digital fingerprinting AI workflow that enables 100% data visibility and drastically reduces the time to detect threats. You'll also hear from cybersecurity experts from a variety of institutions about how to use NVIDIA AI frameworks and tools to architect cybersecurity solutions. > **Learn More**	This tutorial doesn't have any prerequisites, but familiarity with defensive cybersecurity themes and the Linux command line are a plus.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	NVIDIA Morpheus AI framework, **NVIDIA Triton Inference Server**	English	1 hour	Free	N/A
Disaster Risk Monitoring Using Satellite Imagery	Learn how to build and deploy a deep learning model to automate the detection of flood events using satellite imagery. This workflow can be applied to lower the cost, improve the efficiency, and significantly enhance the effectiveness of various natural disaster management use cases. > **Learn More**	> Competency in the **Python 3** programming language. > Basic understanding of machine learning and deep learning concepts, specifically variations of convolutional neural networks (**CNNs**), and pipelines. > Interest in understanding how to manipulate satellite imagery using modern methods.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	NVIDIA DALI®, the NVIDIA TAO Toolkit, NVIDIA TensorRT, NVIDIA Triton Inference Server	English, Simplified Chinese	10 hours	Free	Yes
Getting Started With AI on Jetson Nano	Discover how to build a deep learning classification project with computer vision models using the NVIDIA Jetson Nano Developer Kit. > **Learn More**	Basic familiarity with Python (helpful, not required).			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	PyTorch, Jetson Nano	English, Simplified Chinese, Japanese, Korean	8 hours	Free (hardware required)	Yes

Back

Course Name	Description	Prerequisites			
Getting Started With Deep Learning	Explore the fundamentals of deep learning by training neural networks and using results to improve performance and capabilities. > **Learn More**	> An understanding of fundamental programming concepts in **Python 3**, such as functions, loops, dictionaries, and arrays. > Familiarity with **pandas data structures** and an understanding of how to compute a **regression line** > Suggested materials to satisfy prerequisites: **Python Beginner's Guide**			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	TensorFlow 2 with Keras, pandas	English, Simplified Chinese	8 hours	$90 (excludes tax, if applicable)	Yes
Getting Started With Image Segmentation	Learn how to categorize segments of an image. > **Learn More**	Basic experience training neural networks.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	TensorFlow 2 with Keras	English	2 hours	$30 (excludes tax, if applicable)	N/A
Integrating Sensors With NVIDIA DRIVE	Find out how to integrate automotive sensors into your applications using NVIDIA DRIVE. > **Learn More**	Basic experience in C++ and Linux terminal commands.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	C++, NVIDIA DriveWorks	English	2 hours	$30 (excludes tax, if applicable)	N/A
Introduction to Graph Neural Networks	Learn the basic concepts, models, and applications of graph neural networks. > **Learn More**	Competency in the **Python 3** programming language. Experience with deep neural networks (specifically variations of **CNNs**).			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	Deep Graph Library, PyTorch	English	2 hours	$30 (excludes tax, if applicable)	N/A
Introduction to Physics-Informed Machine Learning With NVIDIA Modulus	High-fidelity simulations in science and engineering are computationally expensive and time-prohibitive for quick iterative use cases, from design analysis to optimization. NVIDIA Modulus, the physics machine learning platform, turbocharges such use cases by building physics-based deep learning models that are 100,000X faster than traditional methods and offer high-fidelity simulation results. Upon completion, you'll understand the various building blocks of Modulus and the basics of physics-informed deep learning. You'll also understand how the Modulus framework integrates with the overall Omniverse platform. > **Learn More**	> Familiarity with the Python programming language > An understanding of partial differential equations and their use in physics. > Familiarity with machine learning concepts like training and inference.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	NVIDIA Modulus	English	4 hours	$30 (excludes tax, if applicable)	N/A

Back

Generative AI and Large Language Models (LLMs)

Course Name	Description	Prerequisites	Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
Augment Your LLM Using Retrieval-Augmented Generation	Retrieval-augmented generation (RAG(is an end-to-end architecture that combines an information-retrieval component with a response generator. In this introductory course, we provide a starting point using components that NVIDIA uses internally. This workflow will jump-start you on your LLM and RAG journey. > Learn More	None	N/A	English	1 hour	Free	N/A
Building RAG Agents for LLMs	Agents powered by LLMs are quickly gaining popularity. An especially powerful recent development has been the popularization of retrieval-based LLM systems that can hold informed conversations by using tools, looking at documents, and planning their approaches. This course will observe how you can deploy an agent system in practice and scale up your system to meet the demands of users and customers. > Learn More	> Introductory deep learning knowledge, with comfort with PyTorch and transfer learning preferred. > Intermediate Python experience, including object-oriented programming and libraries.	N/A	English	8 hours	Free	Yes
Generative AI Explained	Generative AI describes technologies that are used to generate new content based on a variety of inputs. In this course, you will learn Generative AI concepts, applications, as well as the challenges and opportunities in this exciting field. > Learn More	Basic understanding of Machine Learning and Deep Learning concepts	N/A	English	2 hours	Free	N/A
Generative AI With Diffusion Models	In this workshop, you'll train deep learning models from scratch and learn tools and tricks to achieve highly accurate results. You'll also learn to leverage freely available, state-of-the-art pretrained models to save time and get your deep learning application up and running quickly. > Learn More	An understanding of fundamental programming concepts in Python such as functions, loops, dictionaries, and arrays.	TensorFlow 2 with Keras, pandas	English	8 hours	$90 (excludes tax, if applicable)	Yes

Back

Course Name	Description	Prerequisites	Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
Introduction to Transformer-Based Natural Language Processing	In this course, you'll learn how transformers are used as the building blocks of modern large language models (LLMs). You'll then use these models for various NLP tasks, including text classification, named-entity recognition (NER), author attribution, and question answering. > Learn More	> Basic understanding of deep learning concepts. > Basic understanding of language modeling and transformers.	NVIDIA NeMo	English	6 hours	$30 (excludes tax, if applicable)	Yes
Prompt Engineering With Llama 2	In this course, you'll interact with and prompt engineer Llama 2 models to analyze documents, generate text, and be an AI assistant. > Learn More	Experience with deep learning training using Python.	Llama 2, HuggingFace	English	3 hours	$30 (excludes tax, if applicable)	N/A
Synthetic Tabular Data Generation Using Transformers	Synthetic data generation (SDG) is a data-augmentation technique necessary for increasing the robustness of models by supplying training data. In this course, you'll explore the use of transformers for synthetic tabular data generation. > Learn More	> Competency in the Python 3 programming language. > Basic understanding of machine learning and deep learning concepts and pipelines. > Experience building machine learning models with tabular data. > Basic understanding of language modeling and transformers.	NVIDIA NeMo	English	4 hours	$30 (excludes tax, if applicable)	N/A

Graphics and Simulation

Course Name	Description	Prerequisites	Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
Assemble a Simple Robot in NVIDIA Isaac Sim™	In this course, you'll step through the "Assemble a Simple Robot" tutorial to rig a two-wheel mobile robot in a live NVIDIA Isaac Sim GPU environment. > Learn More	A Windows or Linux computer with the ability to install Omniverse Launcher and Omniverse applications; internet bandwidth sufficient to support the Isaac Sim client/server stream (performance will vary).	NVIDIA Isaac Sim	English	30 minutes	Free	N/A
Build Beautiful, Custom UI for 3D Tools on NVIDIA Omniverse	Experience the NVIDIA Omniverse development platform for builders and creators of virtual worlds. Become a master in UI with a deep dive into NVIDIA Omniverse Kit's powerful omni.ui suite of tools and frameworks. In this self-paced course, you'll build your own custom UI for workflows in Omniverse with hands-on exercises. > Learn More	Basic familiarity with Python (helpful, not required). Suggested materials to satisfy prerequisites: The Python Tutorial.	Omniverse Code, Visual Studio Code, Python, and the Python Extension	English, Simplified Chinese	90 minutes	Free	N/A

Back

Course Name	Description	Prerequisites			
Building a 3D Product Configurator With OpenUSD and Omniverse	In this hands-on lab, you'll unlock the power of OpenUSD to build a real-time configurator in NVIDIA Omniverse. Along the way, you'll learn about workflows, asset considerations, and USD composition concepts that you can apply directly to your own development process. **> Learn More**	Intermediate Python experience, including object-oriented programming and libraries.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	This lab requires a machine with an NVIDIA RTX GPU.	English	2 hours	Free	N/A
Develop, Customize, and Publish in NVIDIA Omniverse With Extensions	Want to change the functionality and user interface (UI) of NVIDIA Omniverse? Learn how to customize the Omniverse experience with extensions using Python code. **> Learn More**	A basic understanding of Python. A basic understanding of computer graphics is useful but not required.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	Omniverse Code, Visual Studio Code, Python, and the Python Extension	English	8 hours	Free	Yes
Easily Develop Advanced 3D Layout Tools on NVIDIA Omniverse	Get hands-on experience with NVIDIA Omniverse—the platform for connecting and creating physically accurate, 3D virtual worlds. See how easy it is to create your own custom scene layout tools in Omniverse Code with a few lines of Python script. In this self-paced course, you'll build your own custom scene layout in Omniverse with hands-on exercises in Omniverse Code and Python. **> Learn More**	A basic understanding of computer graphics concepts–such as vertices, meshes, and RGB values–and an understanding of fundamental programming concepts in Python like functions, loops, dictionaries, and arrays.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	Universal Scene Description	English, Simplified Chinese	2 hours	Free	N/A
Essentials of Developing Omniverse Kit Applications	In this course, participants will learn about kit files and how to create one, how to add extensions to applications, how to define the layout of an application and how to package and distribute an application. **> Learn More**	> A basic understanding of Python > A basic understanding of computer graphics is useful but not required. > Creating an extension for Omniverse. > Using Github. > How to use terminal commands.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	NVIDIA NeMo	English	4 hours	$30 (excludes tax, if applicable)	N/A

Back

Course Name	Description	Prerequisites			
Essentials of USD in NVIDIA Omniverse	Universal Scene Description (OpenUSD) is transforming 3D data modeling across various industries and is poised to be the open standard that enables the 3D evolution of the internet—the metaverse. In this hands-on training, you'll learn about data modeling using Prims, attributes, relationships, and custom schemas and composition for scene assembly and collaboration. The hands-on portion of the training will utilize the USD Python API to experiment with the fundamental concepts of USD. **> Learn More**	An understanding of fundamental programming concepts in Python 3 such as functions, loops, dictionaries, and arrays.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	OpenUSD, Omniverse	English	2 hours	$30 (excludes tax, if applicable)	N/A
Fundamentals of Working With OpenUSD	In this lab, we'll cover the fundamentals of working with Universal Scene Description (OpenUSD). You'll learn how to use USD for nondestructive workflows, how layers can help with ease and speed of scene composition, and how to use USD for data separation and reuse it to accelerate 3D workflows in industrial use cases. **> Learn More**	An understanding of fundamental programming concepts in Python 3 such as functions, loops, dictionaries, and arrays.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	This lab requires a machine with an NVIDIA RTX GPU.	English	2 hours	Free	N/A
Getting Started With USD for Collaborative 3D Workflows	Learn how to generate a scene using human-readable Universal Scene Description ASCII (.USDA) files. Upon completion, you'll be able to create your own scenes within the USD framework and will have a strong foundation to use it in applications, such as **NVIDIA Omniverse**, Maya, Unity, and Unreal Engine. **> Learn More**	A basic understanding of computer graphics concepts–such as vertices, meshes, and RGB values–and an understanding of fundamental programming concepts in Python like functions, loops, dictionaries, and arrays.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	Universal Scene Description	English, Simplified Chinese	2 hours	Free	N/A
How to Build a Native OpenUSD XR Application	Learn how to take advantage of Universal Scene Description (OpenUSD) to accelerate your extended reality (XR) development and enhance visual fidelity like never before. This session will equip you with the skills and tools necessary to build, customize, and stream your own OpenUSD native XR applications using NVIDIA Omniverse and NVIDIA CloudXR.. **> Learn More**	Intermediate Python experience, including object-oriented programming and libraries.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certificate**
	This course requires a VR headset and an NVIDIA RTX GPU.	English	2 hours	Free	N/A

Back

Course Name	Description	Prerequisites	Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
How to Build Customer 3D Scene Manipulator Tools on NVIDIA Omniverse	See how you can build advanced tools on the modular, easily extensible Omniverse platform. You'll learn from the Omniverse developer ecosystem team how you can extend and enhance the 3D tools you know and love today. In this self-paced course, you'll build your own custom scene manipulator tools in Omniverse with hands-on exercises writing a few lines of Python code. > **Learn More**	Basic familiarity with Python (helpful, not required). Suggested material to satisfy prerequisites: **The Python Tutorial.**	Omniverse Code, Visual Studio Code, Python, and the Python Extension	English, Simplified Chinese	90 minutes	Free	N/A
How to Build OpenUSD Applications for Industrial Digital Twins	This lab introduces the basics of the NVIDIA Omniverse development platform. You'll learn how to get started building 3D applications and tools that deliver the functionality needed to support industrial use cases and workflows for aggregating and reviewing large facilities such as factories, warehouses, and more. > **Learn More**	Intermediate Python experience, including object-oriented programming and libraries.	This lab requires a machine with an NVIDIA RTX GPU.	English	2 hours	Free	N/A
Introduction to Robotic Simulations in NVIDIA Isaac Sim	Robotic automation has enjoyed great success in recent years with increasing hardware capabilities driving innovation in simulation and machine learning. In this course, we introduce you to Isaac Sim, NVIDIA Omniverse's solution for simulation and robotics. You'll learn how to tap into the simulation loop of a 3D engine and initialize experiments with objects, robots, and physics logic. This can be done programmatically using Omniverse Kit and Pixar USD commands, but the course will use Isaac Sim Core to wrap these low-level operations in an object-oriented fashion. By the end of the course, you'll be able to simulate and control NVIDIA JetBot™ and Franka Emika robots and coordinate them together to perform a handoff. The skills covered in this course are direct prerequisites for working with Isaac Gym and create a good starting point for exploring Isaac Sim and other Omniverse applications. The course is great for those interested in 3D scene specification and robotic simulation, but it's also useful for researchers looking to expand their toolkits and seasoned developers interested in exploring design patterns for Omniverse Kit development. > **Learn More**	> Intermediate knowledge and general comfort with Python 3. This includes familiarity with functions, classes, and basic design patterns. > Comfort with NumPy arrays and basic matrix operations. > A Windows or Linux machine with NVIDIA Omniverse and the Omniverse Streaming Client app.	Isaac Sim, Omniverse Kit, NumPy	English, Simplified Chinese	4 hours	$30 (excludes tax, if applicable)	N/A

Back

Workshop Name	Description	Prerequisites
Synthetic Data Generation for Training Computer Vision Models	How much data is enough? This is a common question when fine-tuning or training computer vision models. In cases where data collection is a limiting factor, we can use synthetic data! NVIDIA Omniverse Replicator streamlines synthetic data generation (SDG) using 3D assets into a single application, with the ability to modify the appearance and format of the data. This lab highlights one of the ways deep learning tools and Omniverse can be used together to streamline deep learning workloads. > **Learn More**	> Intermediate understanding of Python (including classes, objects, and decorators): learn about this topic from the Python.org tutorials > Basic understanding of Machine Learning and Deep Learning concepts and pipelines:learn about this topic from the "Deep Learning Demystified" video

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
NVIDIA Omniverse Replicator, NVIDIA Triton Inference Server, PyTorch	English	3 hours	$30	N/A

Infrastructure

Workshop Name	Description	Prerequisites
Introduction to AI in the Data Center	Explore AI, GPU computing, NVIDIA AI software architectures, and how to implement and scale AI workloads in the enterprise data center. > **Learn More**	Basic knowledge of enterprise networking, storage, and data center operations

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
Artificial intelligence, machine learning, deep learning, GPU hardware and software	English	4 hours	$49 (excludes tax, if applicable)	Available

Workshop Name	Description	Prerequisites
Introduction to NVIDIA DOCA™ for DPUs	The NVIDIA DOCA Software Framework lets developers rapidly create applications and services on top of NVIDIA BlueField data processing units (DPUs). Together, DOCA and the BlueField DPU deliver breakthrough networking, security, and storage performance with a comprehensive, open development platform. In this self-paced course, you'll learn the basic concepts of DOCA as a platform for accelerated data center computing on BlueField DPUs. Upon completion, participants will be equipped with introductory knowledge that will enable you to begin using DOCA and DPUs to develop applications that accelerate your data centers services. > **Learn More**	> Familiarity with software architecture and how it relates to and executes on hardware. > Suggested materials to satisfy prerequisite: • **Enterprise Data Center Networking** • **Data Center: Overview** • **Data Center: Virtualization** > Some working knowledge of data center networking. > Suggested materials to satisfy prerequisite: • **Introducing How Computers Work** • **Hardware Acceleration** • **Software Execution and Computing**

Tools, Libraries, Frameworks	Languages	Duration	Price	Certificate
NVIDIA DOCA SDK	English, Simplified Chinese	2 hours	Free	N/A

Back

Instructor-Led Workshops for Administrators

Workshop Name	Description	Prerequisites

AI and Data Science

NVIDIA AI Enterprise Administration: Public Training

This hands-on training course explores architecture, installation, configuration, operation, and management of NVIDIA AI Enterprise.

> Learn More

None.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
N/A	English	12 hours	$1,500	N/A

Cluster Administration

NVIDIA Base Command™ Manager

This course provides an overview of Base Command Manager, including managing nodes and software images, monitoring devices and jobs, managing users, and configuring workload managers.

> Learn More

None.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
Base Command Manager	English	12 hours	Contact us	N/A

Ethernet Cumulus

Cumulus® Linux: Public Bootcamp

Learn how to install, deploy, configure, and troubleshoot Cumulus-based networks. This course offers a perfect blend of hands-on training and theoretical education.

> Learn More

None.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
Cumulus Linux switches	English	12 hours	$1,500	Available

Cumulus Linux: Private Workshop

In this hands-on private training, you'll learn about NVIDIA Cumulus OS architecture, installation, configuration, operation, and management of Cumulus Linux running on NVIDIA switches.

> Learn More

None.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
Cumulus Linux switches	English	20 hours	Contact us	Available

NVIDIA Cumulus Linux: Customized Advanced Training

This course focuses on how to build and operate a state-of-the-art data center or storage fabric with emphasis on troubleshooting. The course covers advanced topics such as filtering, quality of service (QoS), Ethernet VPN multihoming (EVPN-MH), monitoring, and active testing.

> Learn More

None.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
Cumulus Linux switches	English	12 hours	Contact us	N/A

Back

Workshop Name	Description	Prerequisites

InfiniBand

InfiniBand Customized Course

In this course, you'll learn about InfiniBand architecture and how to manage, monitor, and troubleshoot your InfiniBand network.

> Learn More

Network administrators and IT professionals that need to install, configure, manage, monitor, and troubleshoot the configuration and performance of InfiniBand networks.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
InfiniBand networks	English	16 hours	Contact us	Available

InfiniBand Professional Customized Training

In this course, you'll learn about InfiniBand and Cumulus architecture and how to manage, monitor, and troubleshoot triad deployment-based networks.

> Learn More

None.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
InfiniBand networks	English	16 hours	Contact us	N/A

NVIDIA DGX

NVIDIA DGX H100/A100 Administration: Private Workshop

This course provides an overview of the NVIDIA DGX A100 system and NVIDIA DGX Station™ A100, tools for in-band and out-of-band management, NGC, the basics of running workloads, and specific management tools and command-line interface (CLI) commands. In addition, this course includes content on Multi-Instance GPU (MIG), managing storage, performance validation, and other system management tools and concepts.

> Learn More

System and network administrators and IT professionals that need to configure and verify the configuration and performance of DGX A100 systems and DGX Station A100.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
DGX A100 system and DGX Station A100	English	16 hours	Contact us	N/A

NVIDIA DGX H100/A100 Administration: Public Workshop

This course provides an overview of the DGX A100 system and DGX Station A100's tools for in-band and out-of-band management, the basics of running workloads, specific management tools, and CLI commands.

> Learn More

System and network administrators and IT professionals that need to configure and verify the configuration and performance of DGX A100 systems and DGX Station A100.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
DGX A100 system and DGX Station A100	English	16 hours	$1,500	N/A

Back

Workshop Name	Description	Prerequisites
NVIDIA DGX BasePOD™ Administration: Private Workshop	This course provides an overview of DGX BasePOD components and related processes, including the NVIDIA DGX A100 system, InfiniBand and Ethernet networks, tools for in-band and out-of-band management, NGC, the basics of running workloads, and specific management tools and CLI commands. It includes instructions for managing vendor-specific storage per the architecture of your specific DGX BasePOD solution. **> Learn More**	System and network administrators and IT professionals that need to configure and verify the configuration and performance of DGX A100 clusters.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
DGX BasePOD cluster	English	16 hours	Contact us	N/A

Workshop Name	Description	Prerequisites
NVIDIA DGX SuperPOD™ Administration: Private Workshop	This course is designed to help IT professionals successfully administer all aspects of a DGX SuperPOD cluster, including compute, storage, and networking. **> Learn More**	System and network administrators and IT professionals that need to configure and verify the configuration and performance of DGX SuperPOD clusters.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
DGX SuperPOD cluster	English	16 hours	Contact us	N/A

Virtualization

Workshop Name	Description	Prerequisites
NVIDIA AI Enterprise Administration: Public Bootcamp	This course covers the platform and solution overview, hardware and software architecture, deployment options, licensing, temporal and spatial GPU partitioning, scaling, comprehensive validation, management, maintenance, monitoring, and troubleshooting. **> Learn More**	System administrators and IT professionals that need to install, configure, manage, monitor, and troubleshoot the configuration and performance of their NVIDIA AI Enterprise solution.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
NVIDIA AI Enterprise	English	12 hours	$1,500	N/A

Back

Online, Self-Paced Courses for Administrators

Course Name	Description	Prerequisites	Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
AI and Data Science							
Introduction to AI in the Data Center	Explore an introduction to AI, GPU computing, NVIDIA AI software architecture, and how to implement and scale AI workloads in the data center. > Learn More	None	N/A	English	4 hours	$49	Available
NVIDIA AI Enterprise Administration	This course covers the platform and solution overview, hardware and software architecture, deployment options, licensing, temporal and spatial GPU partitioning, scaling, comprehensive validation, management, maintenance, monitoring, and troubleshooting. > Learn More	To gain the most value from this course, the target audience should have a working knowledge in the following domains: > Data Center Infrastructure: Servers, Storage, Networking, GPUs, Operating Systems. > Virtualization: VMware vSphere. > Containerization: Docker.	NVIDIA AI Enterprise	English	8 hours	$99	N/A
Cluster Administration							
NVIDIA Base Command™ Manager	This course is based on NVIDIA Base Command Manager and gives an overview of the cluster management tools, Bright View and cluster management shell (CMSH). > Learn More	None.	Base Command Manager	English	5 hours	Free	N/A
Base Command Manager Autoscaling Hybrid Cloud	This course is based on NVIDIA Base Command Manager and gives an overview of extending the cluster to the cloud with Cluster as a service and cluster extension (i.e., hybrid cloud). > Learn More	None	NVIDIA Base Command Manager	English	3 hours	Free	N/A

Back

Course Name	Description	Prerequisites
Introduction to Base Command Manager	This course is based on NVIDIA Base Command Manager and gives an overview of the usage and components of the software. > Learn More	None

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
NVIDIA Base Command Manager	English	3 hours	Free	N/A

DGX

Course Name	Description	Prerequisites
NVIDIA DGX Cloud	This course is based on NVIDIA DGX Cloud using NVIDIA Base Command Platform. You'll learn to manage users and teams, run single and multi-node jobs, and manage data. > Learn More	None

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
DGX Base Command Manage	English	1 hour	Free	N/A

Ethernet

Course Name	Description	Prerequisites
Linux Networking Fundamentals	Learn the fundamental concepts and commands behind Linux-based open networking. > Learn More	None

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
Linux networking concepts	English	6 hours	$99	N/A

Course Name	Description	Prerequisites
Network Administration With the NVIDIA Onyx™ Switch System	This course provides the required set of skills to configure and manage NVIDIA Ethernet switch systems. You'll learn in depth layer 2 configurations such as VLAN, STP, LAG, and MLAG, as well as how to configure layer 3 features such as BGP. > Learn More	> Basic understanding of Ethernet network principles. > Basic understanding of switching and routing concepts.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
NVIDIA Onyx	English	3 hours	$99	N/A

Back

Course Name	Description	Prerequisites	Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
RDMA Over Converged Ethernet (RoCE) From A to Z	In this course, you'll learn what RoCE is, how it works, the different network types RoCE can run over, and how to configure RoCE for each network type. > Learn More	Basic understanding of networking concepts and the Open Systems Interconnection (OSI) model.	RoCE	English	2 hours	Free	N/A

Graphics and Simulation

Course Name	Description	Prerequisites	Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
NVIDIA Omniverse Enterprise Administration	The course covers the solution overview, hardware and software architecture, deployment options, installation, configuration, licensing, scaling, comprehensive validation, security, management, maintenance, monitoring, and troubleshooting. The instruction and guidance are based on NVIDIA's best practices and cover the critical knowledge and skills for deploying, administering, and managing your Omniverse solution. > Learn More	None	Omniverse	English	6.5 hours	$99	N/A

InfiniBand

Course Name	Description	Prerequisites	Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
InfiniBand Essentials	This self-paced course covers the fundamental first steps into the world of InfiniBand. If you're looking to become more familiar with InfiniBand's benefits, uses, architecture layers, and management concepts, this is the best place to start. > Learn More	General understanding of networking concepts and principles.	InfiniBand	English	1.5 hours	Free	N/A
InfiniBand Professional	This course covers the fundamentals of the InfiniBand technology from a usability point of view and builds on the details of the InfiniBand architecture specification. You'll learn how to install, configure, manage, troubleshoot, and monitor your InfiniBand network. > Learn More	General understanding of networking concepts and principles.	InfiniBand	English	6 hours	$250	Available

Back

Workshop Name	Description	Prerequisites			
Management					
Data Center Management Made Easy With NVIDIA UFM®	Learn about NVIDIA Unified Fabric Manager (UFM) and its capabilities, advantages, and components through a set of interactive learning units, videos, and simulators. > Learn More	Understanding of InfiniBand fabrics and management concepts			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certification Exam**
	N/A	English	3 hours	$49	N/A
NVIDIA License System	NVIDIA License System (NLS) is a new licensing solution to support the continued expansion of the NVIDIA enterprise software portfolio. This course will help you to learn about NLS and how you can move from your existing licensing solution to NLS. > Learn More	> Basic understanding of virtual appliances installation and setup. > Familiarity with web/cloud-based applications. > Familiarity with NVIDIA products like virtual GPU (vGPU) and NVIDIA AI Enterprise.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certification Exam**
	Cloud License Service (CLS) and Delegated License Service (DLS)	English	2 hours	Free	N/A
Network					
Ansible Essentials for Network Engineers	In this course, you'll explore a variety of Ansible modules and write playbooks specifically adapted to modern data centers. This course includes an exclusive hands-on lab environment and exercises to practice real-world scenarios in real cloud environments. > Learn More	> Basic Linux administration. > General understanding of networking concepts and principles.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certification Exam**
	Ansible	English	3 hours	$49	N/A
Introduction to Networking	In this course, we'll cover the basics of Ethernet technology and understand how data is forwarded in an Ethernet network. > Learn More	None			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certification Exam**
	N/A	English	1 hour	Free	N/A

Back

Workshop Name	Description	Prerequisites
MLXlink and MLXcables Debug Tools	In this course, you'll learn about the MLXlink and MLXcables debug tools. These debug tools are used for both basic link troubleshooting and for analyzing the more complex link characteristics. > Learn More	Good technical background and understanding of networking hardware.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
MLXLink and MLXcables	English	2 hours	Free	N/A

Workshop Name	Description	Prerequisites
NVIDIA BlueField® DPU Administration	Learn the basic concepts of BlueField DPUs as a platform for accelerated data center computing. > Learn More	> Basic knowledge and experience in networking concepts and principle. > Basic knowledge and experience in Linux administration.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
N/A	English	3 hours	$49	N/A

RDMA

Workshop Name	Description	Prerequisites
The Fundamentals of RDMA Programming	This course allows C programmers to dive into the RDMA programming world without requiring previous experience in networking or RDMA programming. We've also added tips and tricks, as well as do's and don'ts, so the skills you acquire will truly serve you when you need them. > Learn More	Understanding of C/C++ programming.

Tools, Libraries, Frameworks	Languages	Duration	Price	Certification Exam
RDMA, C/C++	English	4 hours	$49	N/A

Back

Certifications

Certification Name	Description	Prerequisites			
NVIDIA-Certified Associate: AI in the Data Center	This is an entry-level certification that validates foundational concepts of adopting artificial intelligence computing by NVIDIA in a data center environment. The exam is online and remote proctored with 50 questions and a time limit of 60 minutes for completion. > Learn More	A basic understanding of data center infrastructure.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certification Exam**
	N/A	English	1 hour	$135	Available
NVIDIA-Certified Associate: Generative AI Large Language Models	An entry-level credential that validates the foundational concepts for developing, integrating, and maintaining AI-driven applications using generative AI and large language models (LLMs) with NVIDIA solutions. The exam is online and proctored remotely, includes 50 questions, and has a 60-minute time limit. > Learn More	A basic understanding of generative AI and large language models			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certification Exam**
	N/A	English	1 hour	$135	Available
NVIDIA-Certified Associate: Generative AI Multimodal	An entry-level credential that validates the foundational skills needed to design, implement, and manage AI systems that synthesize and interpret data across text, image, and audio modalities. The exam is online and proctored remotely, includes 50 questions, and has a 60-minute time limit. > Learn More	A basic understanding of generative AI			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certification Exam**
	N/A	English	1 hour	$135	Available
NVIDIA-Certified Professional: InfiniBand	This is an intermediate level certification that validates core concepts for designing, deploying, and managing NVIDIA InfiniBand fabrics. The exam is online and remote proctored with 40 questions and a time limit of 90 minutes for completion. > Learn More	A thorough understanding of data center infrastructure and networking.			
	Tools, Libraries, Frameworks	**Languages**	**Duration**	**Price**	**Certification Exam**
	NVIDIA InfiniBand fabrics	English	1.5 hours	$220	Available

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