READY FOR NEW GENERATION OF GAMING TECHNOLOGY

Samuel Lo, NVIDIA AI Technology Centre

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NVIDIA — A LEARNING MACHINE

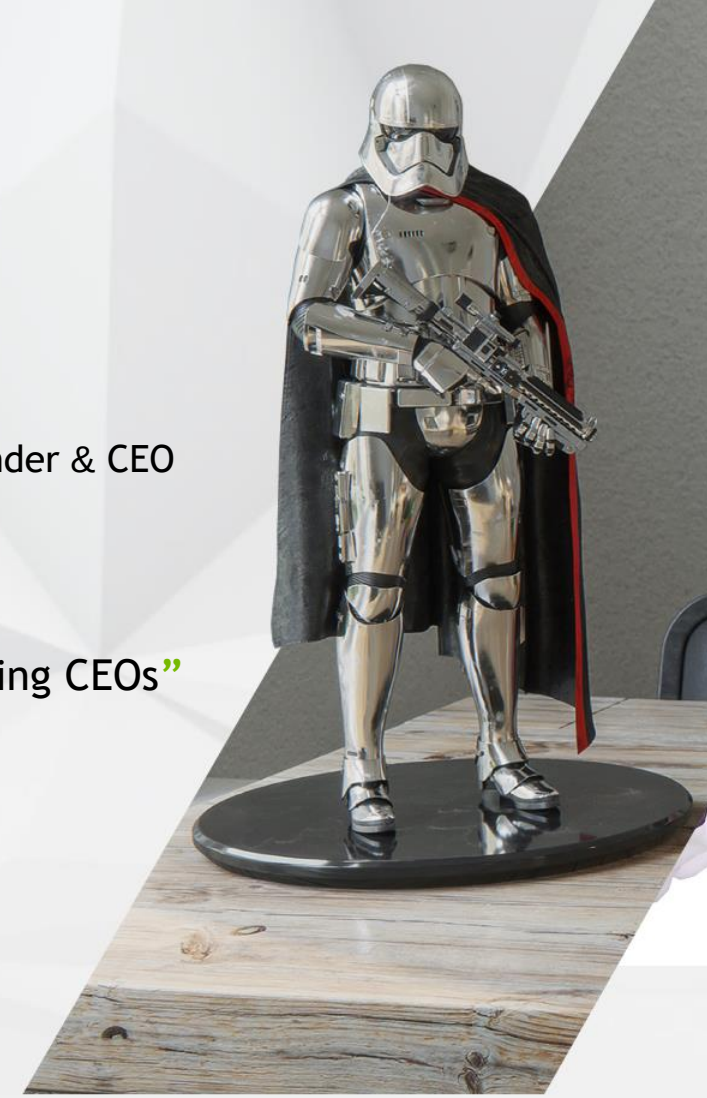
- Founded in 1993
- Jensen Huang, Founder & CEO
- 12,000 employees
- $9.7B in FY18

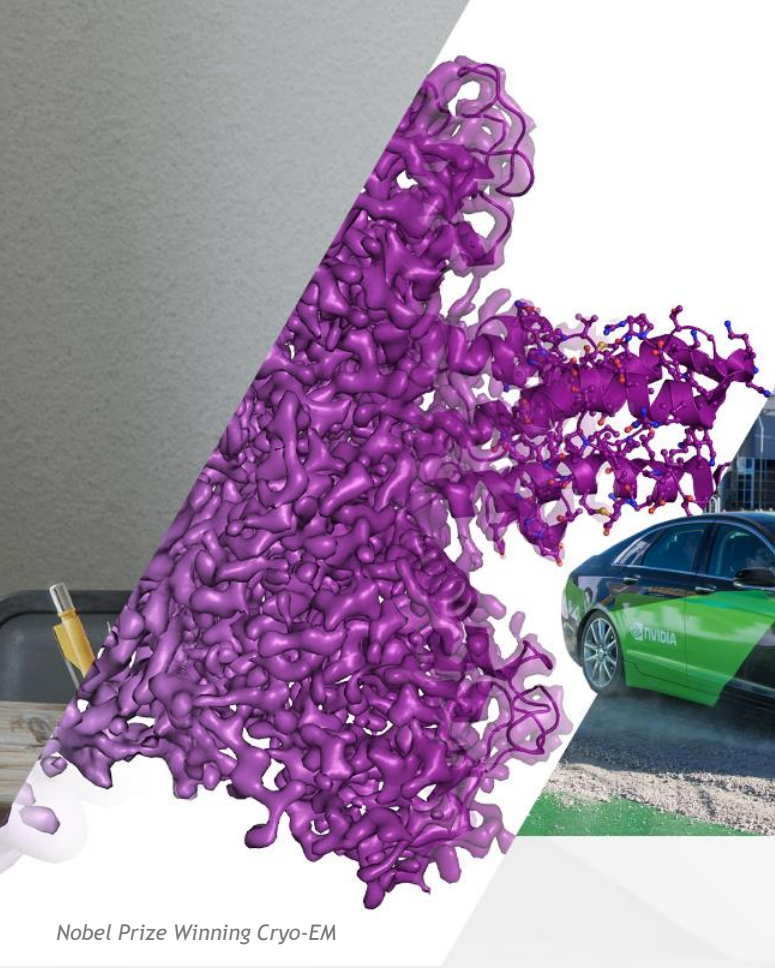
"World's Best Performing CEOs"
— Harvard Business Review

"World's Most Admired Companies"
— Fortune

"Most Innovative Companies"
— Fast Company

"50 Smartest Companies"
— MIT Tech Review





Nobel Prize Winning Cryo-EM

GRAPHICS

HPC

AI

1996

2006

2016

NVIDIA

GRAPHICS

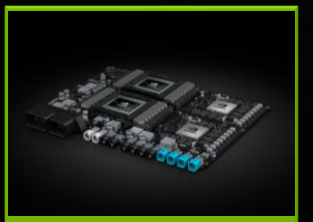
GAMING

DESIGN

CGI

AI

AI INFRASTRUCTURE



AV & ROBOTICS

AI FOR INDUSTRIES

NVIDIA GAMEWORKS

NVIDIA GAMEWORKS

NVIDIA GAMEWORKS

https://developer.nvidia.com/what-is-gameworks

NVIDIA GameWorks Ray Tracing (RTX)

NVIDIA GameWorks™ SDK will add a ray-tracing denoiser module. The Ray Tracing Denoiser is a set of libraries that enables fast, realtime ray tracing by utilizing denoising techniques

NVIDIA GameWorks VisualFX

NVIDIA VisualFX provides solutions for high quality visual effects that leverage GPU computing and graphics capabilities

NVIDIA VRWorks™

NVIDIA VRWorks™ is a comprehensive suite of APIs, libraries, and engines that enable application and headset developers to create amazing virtual reality experiences

NVIDIA PhysX SDK

NVIDIA PhysX SDK is a scalable multi-platform physics solution supporting a wide range of devices, from smartphones to high-end multicore CPUs and GPUs

NVIDIA Core SDK

NVIDIA Core SDK is a collection of loosely coupled SDKs and APIs that allow your game to better integrate with NVIDIA platform

NVIDIA GameWorks™ Samples

Graphics and compute samples for OpenGL, Vulkan and DirectX developers, showing cutting edge rendering and graphics techniques for games

NVIDIA GAMEWORKS RAY TRACING (RTX)

Applications in Games

Higher quality in-game rendering

- ❑ Reflections
- ❑ Ambient Occlusion
- ❑ Shadows

Content Creation Workflows

- ❑ Light baking
- ❑ Cinematic rendering
- ❑ Path traced reference

Non-rendering applications

- ❑ Audio simulation in VR (VRWorks Audio)
- ❑ Physics / Collision detection
- ❑ AI

NVIDIA.

UNREAL ENGINE

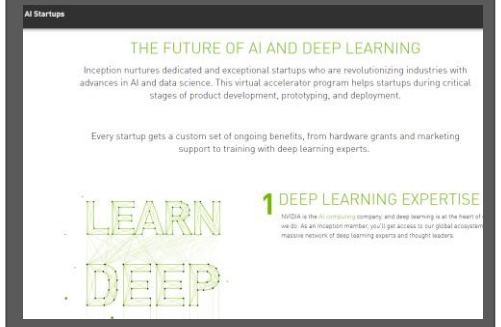
CONTROL

NVIDIA RESOURCES FOR AI/ML/DL

Deep Learning Institute

Training materials
hands-on labs
Self-paced courses
Hand-on Degree Program

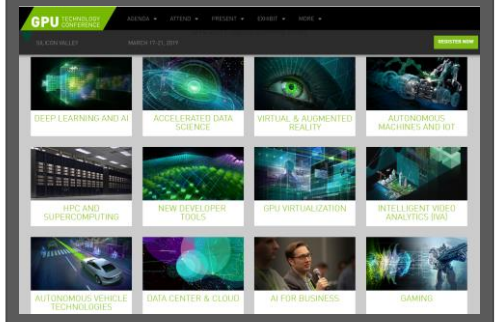
www.nvidia.com/DLI



Inception for AI Startups

Access to NVIDIA tech GPU and AI experts Global marketing/sales GPU venture introduction

www.nvidia.com/inception



GPU Technology Conference (GTC)

GTC is the largest and most important event of the year for GPU developer

www.gputechconf.com

NVIDIA AI Technology Center

NVAITC leads development of technical solutions and architectural design for Deep learning, Data visualization, Accelerated Computing.

NVIDIA AI Tech Centre

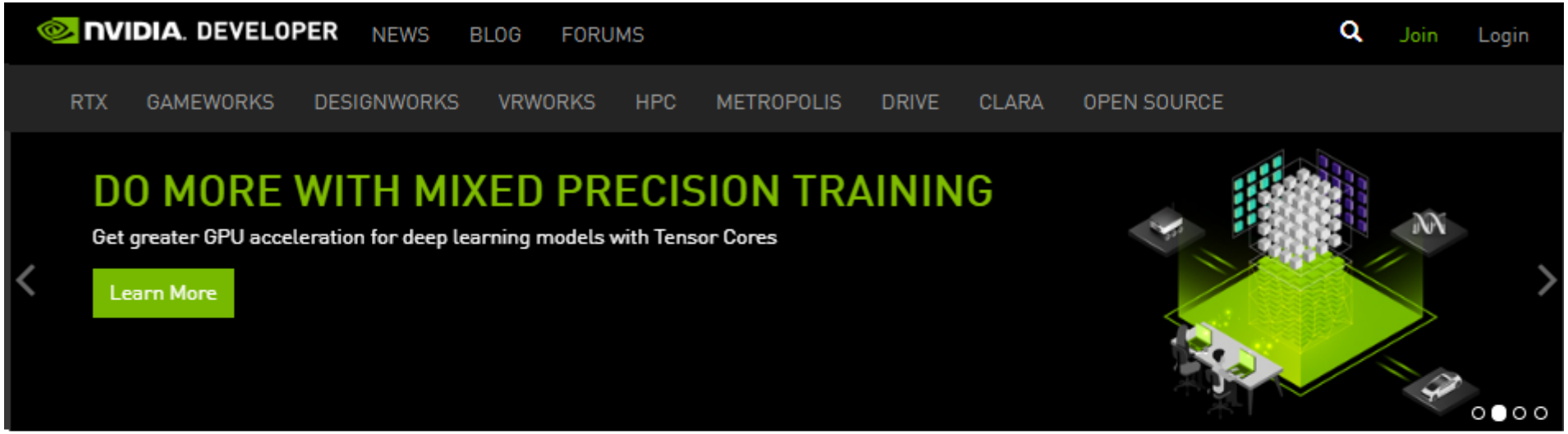
DEEP LEARNING FOR GAME DEVELOPMENT

Deep Learning for Game Development

This workshop provides hands-on training on the latest techniques for designing, training, and deploying neural networks for game development. By the end of the workshop, you'll understand how a neural network can animate characters without artist input, learn how a network trained on unpaired image collections can map an image from one style to another, and train a deep reinforcement agent to play *Starcraft II*.

Duration:	8 hours
Price:	$10,000 for groups of up to 20 (price increase for larger groups). During the workshop, each participant will have dedicated access to a fully configured, GPU-accelerated workstation in the cloud.
Assessment type:	Multiple-choice
Certificate:	Upon successful completion of the assessment, participants will receive an NVIDIA DLI certificate to recognize their subject matter competency and support professional career growth.
Prerequisites:	Basic familiarity with deep learning concepts, such as convolutional neural networks (CNNs); experience programming in Python
Languages:	English, Chinese
Tools, libraries, and frameworks:	TensorFlow, Theano

NVIDIA DEVELOPER COMMUNITY



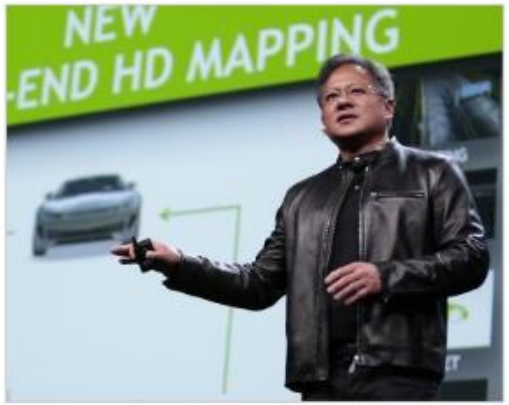
https://developer.nvidia.com/

- High Performance Computing
- Deep Learning
- Machine Learning
- Inference
- Autonomous Machines
- Autonomous Vehicles
- Ray Tracing
- Game Development
- Design and Visualization

NVIDIA GTC

THE PREMIERE AI CONFERENCE

MARCH 22-26, 2019 | SILICON VALLEY | #GTC20



ADVANCE YOUR DEEP LEARNING KNOWLEDGE AT GTC

Don't miss the world's most important event for GPU developers

REGISTER EARLY AT WWW.GPUTECHCONF.COM

WASHINGTON D.C. | WORKSHOPS NOV 4 | CONFERENCE NOV 5-6 | FREE FOR GOV'T
SILICON VALLEY | WORKSHOPS MARCH 22 | CONFERENCE MARCH 23-26

NVIDIA AI Technology Centre (NVAITC)

- **Establishment** Aug 2015 in Singapore
- **Locations:** Singapore, Australia, Vietnam, Indonesia, Thailand, India, China, Korea, Japan, Taiwan, HK & Macau

NVAITC.HK focus:

Smart City

Financial Technologies

Intelligent Manufacturing

Health Technologies

NVIDIA AI Technology Center

VIRTUAL CAMERA

Samuel Lo, NVIDIA AI Technology Centre

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