

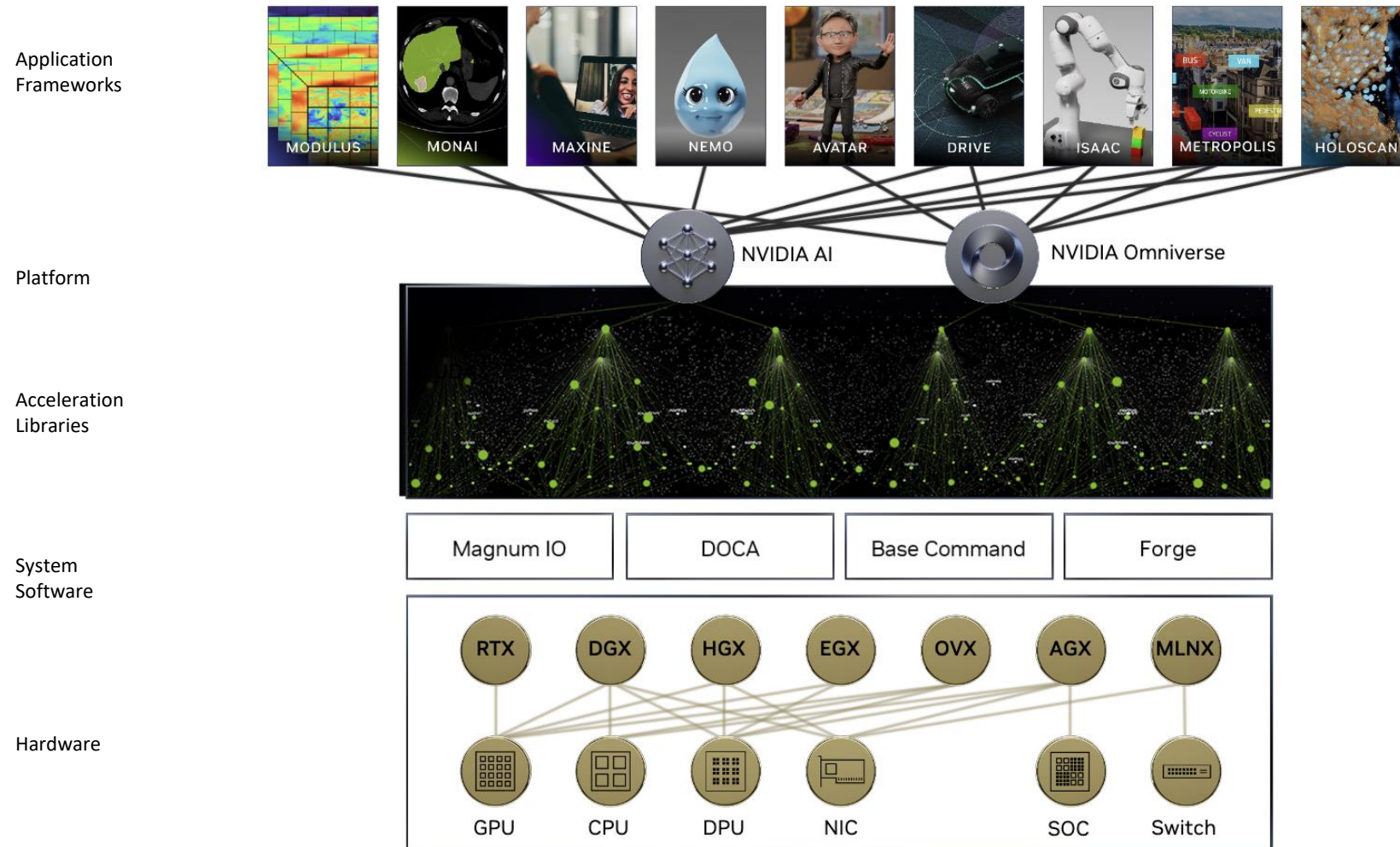


# **NVIDIA – From Gaming to Generative AI**

Troy Estes, Developer Relations Manager

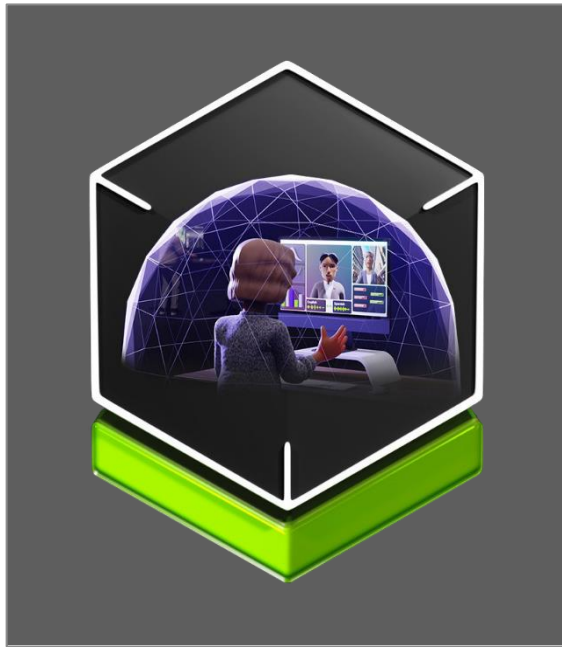
# Pioneering Accelerated Computing

Accelerated computing requires full-stack optimization, from chip architecture, systems, and acceleration libraries, to refactoring the applications. The global NVIDIA ecosystem spans 4.5 million developers, 40,000 companies, and over 3,300 applications.



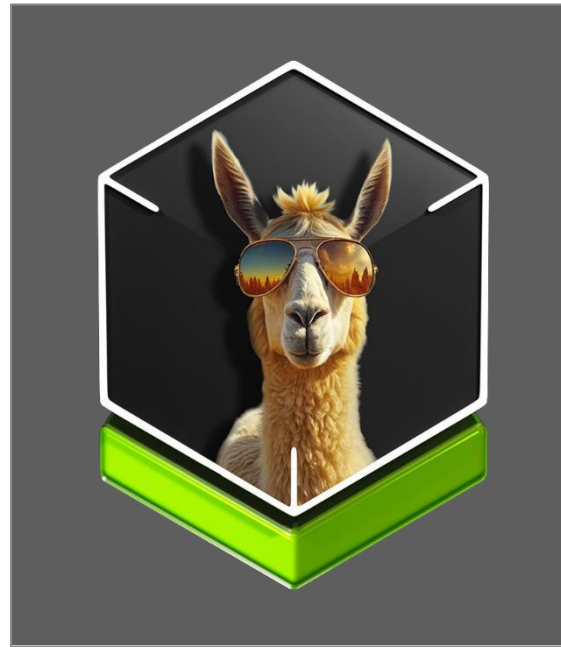
# New Era of Generative AI

Unlocking unprecedented levels of productivity



## Customer Experience

Customer Self-Service  
Agent Experiences



## Content Creation

Personalization Domain  
Specific Summarization



## Software Engineering

Coding Assistant



## Product R&D

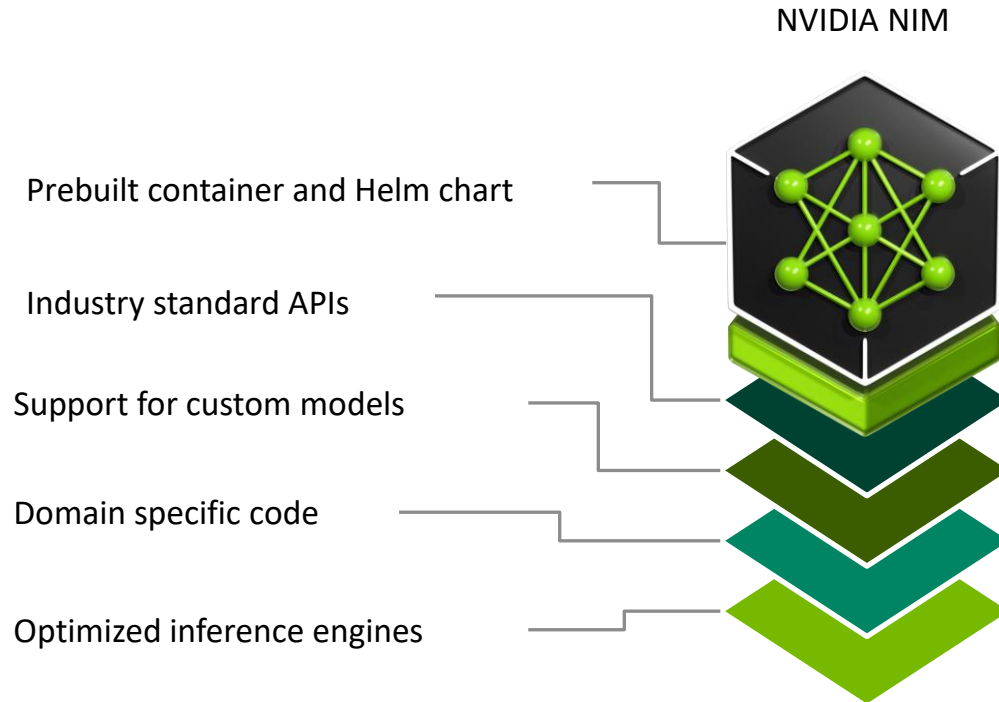
Enhanced Design  
Simulation and Testing

“...generative AI has the potential to generate \$2.6 trillion to \$4.4 trillion in value across industries.”

— McKinsey Digital, “The Economic Potential of Generative AI: The Next Productivity Frontier” 2023

# NVIDIA NIM Optimized Inference Microservices

Accelerated runtime for generative AI



**Deploy anywhere with security and control** of AI applications and data

**Speed time to market** with prebuilt, continuously maintained microservices

**Empower developers** with the latest AI models, standard APIs and enterprise tools

**Optimize throughput** and latency to maximize token generation and responsiveness

**Boost accuracy** by tuning custom models from proprietary data sources

**Deploy in production** with API stability, security patching, quality assurance and enterprise support

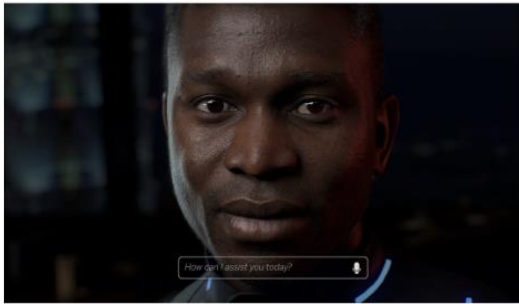




# NVIDIA NIM Agent Blueprints

Available on [build.nvidia.com](https://build.nvidia.com)

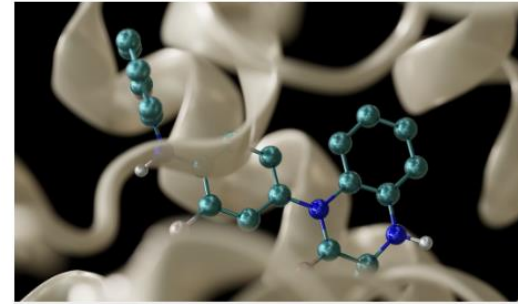
Digital Humans for  
Customer Service



Multimodal PDF Data Extraction for  
Enterprise RAG



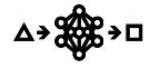
Generative Virtual Screening for  
Drug Discovery



monthly release

## NVIDIA NIM Agent Blueprint

### Example Application



Interactive experience that  
can be easily replicated

### Sample Data



Public data for workflow  
testing

### Reference Code



Leverage proven pre-trained  
models

### Architecture



Reference architecture including  
API definitions, NIM, and more

### Customization Tools



Customize and evaluate models

### Orchestration Tools



Deploy and manage workflow  
microservices

# Build.nvidia.com

Discover

MODELS

Reasoning

Vision

Visual Design

Retrieval

Speech

Biology

Simulation

Safety & Moderation

INDUSTRIES

Gaming

Healthcare

Industrial

## Most Popular Foundation Models

[View All Models](#) →

The leading open models built by the community, optimized and accelerated by NVIDIA's enterprise-ready inference runtime

**RUN ANYWHERE**



meta  
**llama-3.1-405b-instruct**

synthetic data generation chat

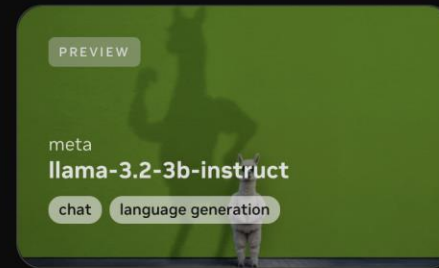
**PREVIEW**



meta  
**llama-3.2-90b-vision-instruct**

image captioning image-text retrieval

**PREVIEW**



meta  
**llama-3.2-3b-instruct**

chat language generation

**PREVIEW**



nvidia  
**nemotron-4-340b-reward**

reward model synthetic data generation

## Explore NIM Agent Blueprints

[View All Agent Blueprints](#) →

Reference code with guides for customization and deployment of applications built with NVIDIA NIM and partner microservices

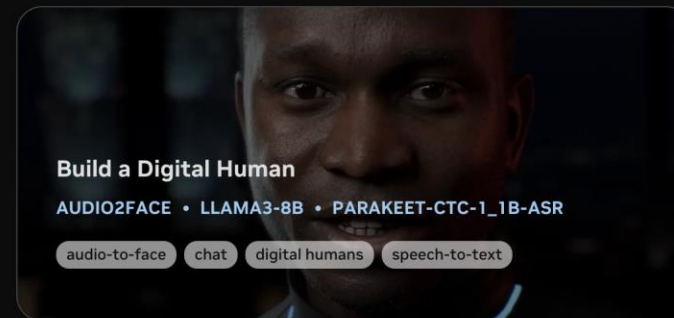
**Multimodal PDF Data Extraction**



GOOGLE-DEPLOT • NV-RERANKQA-MISTRAL-4B-V3 • NV-EMBEDQA-E5-V5

augmented generation generative ai ingestion multimodal

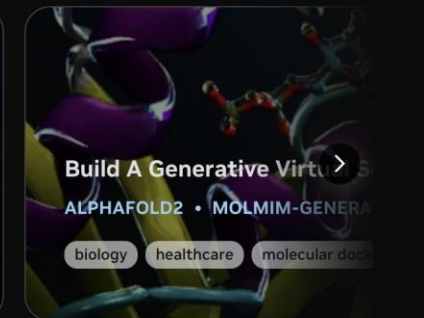
**Build a Digital Human**



AUDIO2FACE • LLAMA3-8B • PARAKEET-CTC-1\_1B-ASR

audio-to-face chat digital humans speech-to-text

**Build A Generative Virtual Assistant**

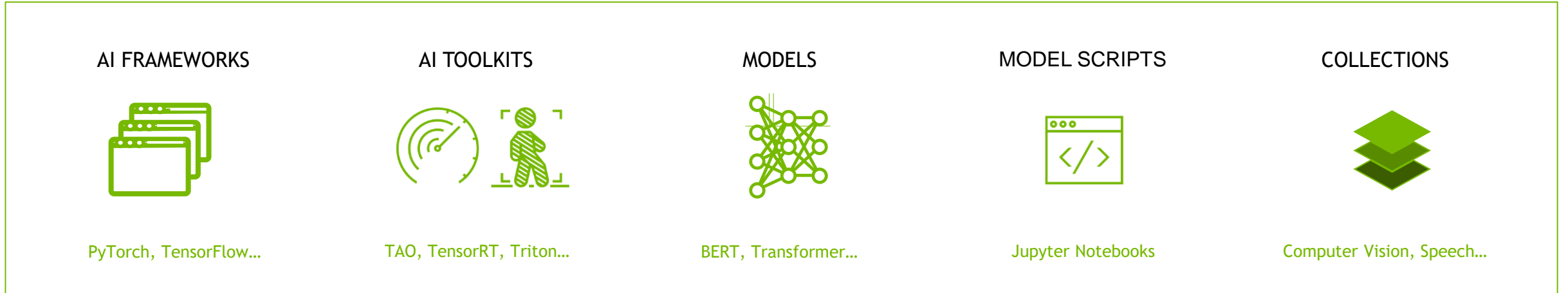


ALPHAFOLD2 • MOLMIM-GENERATOR

biology healthcare molecular docking

# NGC Catalog

GPU-Optimized Software



## Computer Vision



Traffic Analysis



Gesture Recognition



Medical Imaging

## Conversational AI



Chat bots



Translation



Music composition

## Recommendation



Page rankings



Personalized shopping



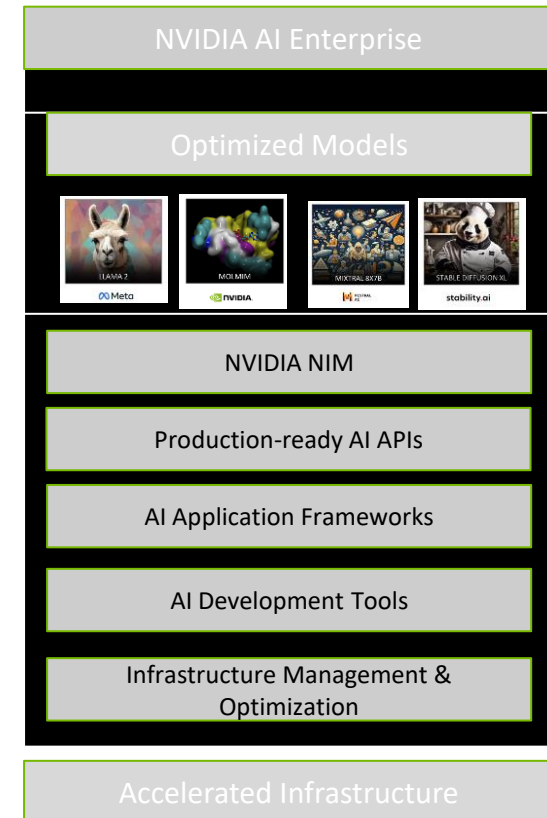
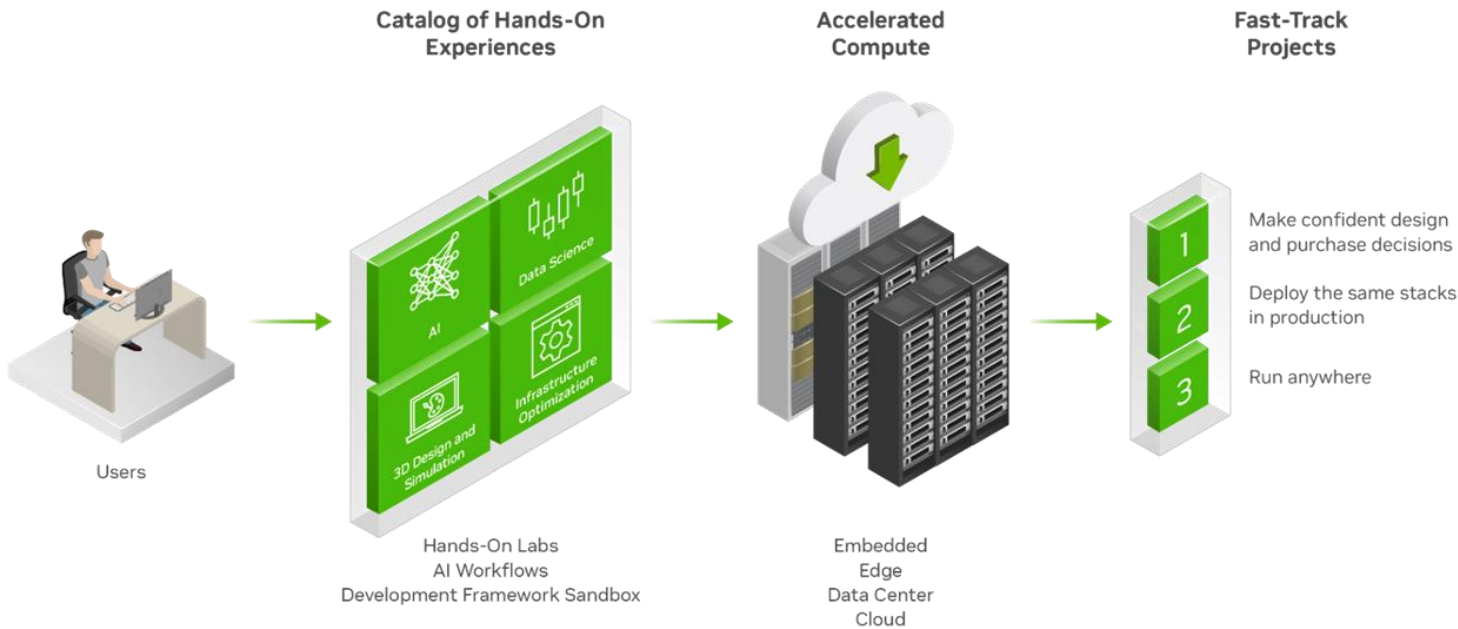
Music & movie suggestions

# NVIDIA LaunchPad

Easily experience the latest NVIDIA enterprise hardware and software.

Experience, Evaluate and Test NVIDIA AI

Take the Next Step with NVIDIA AI in Cloud





# Developer Tools and Resources

Accelerate innovation and growth



Learn more: [developer.nvidia.com](https://developer.nvidia.com)

## Individuals

### Software

100s of APIs, models, SDKs, microservices, and early access to NVIDIA tech

### Training

Hands-on self-paced courses, instructor-led workshops, and certifications

### GPU Sandbox

Approval basis, multi-GPU and multi-node

### Learning

Tutorials, self-paced courses, blogs, documentation, code samples

### Community

Dedicated developer forums, meetups, hackathons

### Ecosystem

GTC, NVIDIA Partner Network

## Organizations

### Startups

Cloud credits, engineering resources, technology discounts, exposure to VCs

### Venture Capital

Deal flow and portfolio support for Venture Capital firms

### Higher Education

Teaching kits, training, curriculum co-development, grants

### ISVs and SIs

Engineering guidance, discounts, marketing opportunities

### Research

Grant programs, collaboration opportunities

### Enterprises

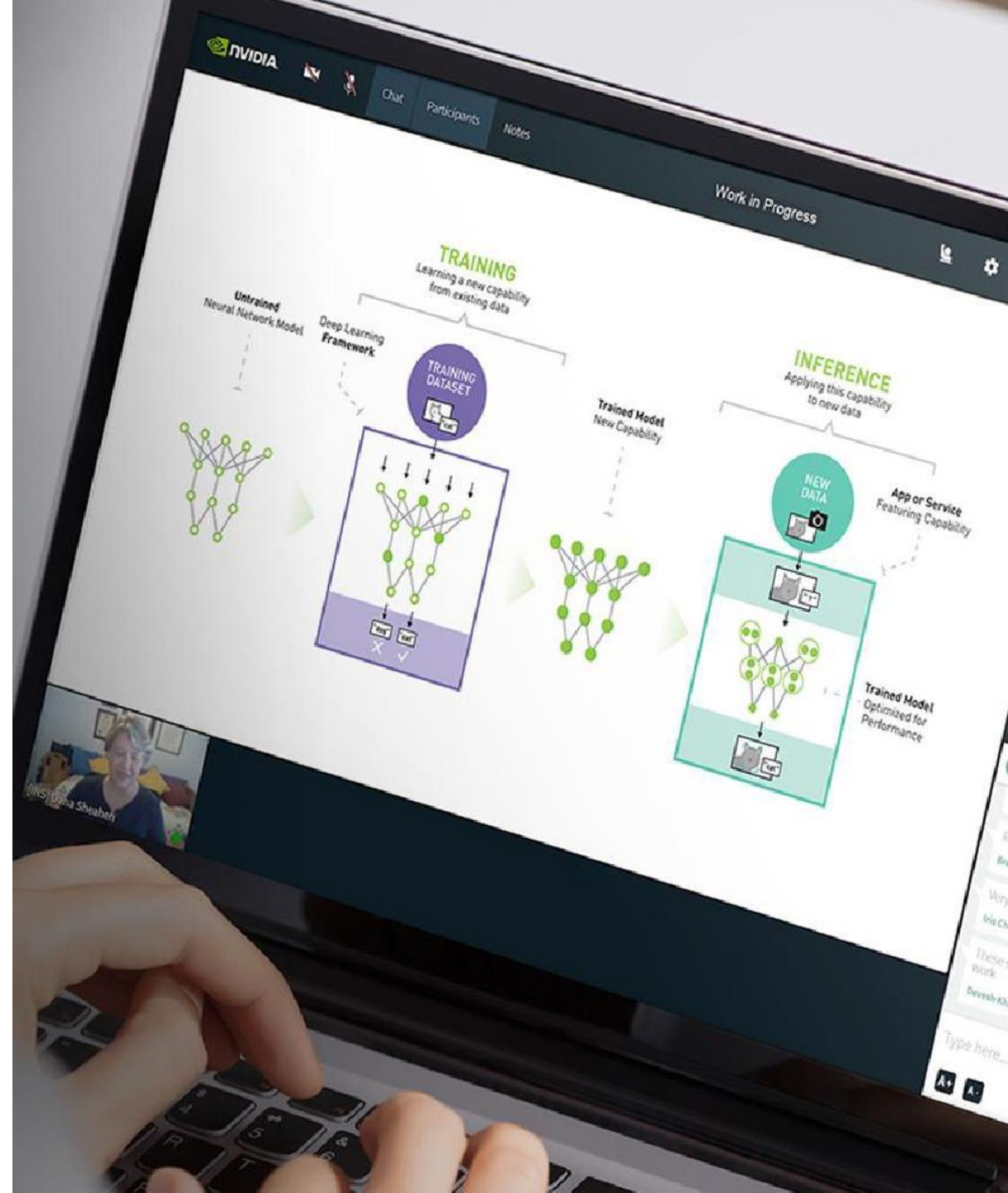
Tailored developer training, skills certification, technical support

# NVIDIA Deep Learning Institute (DLI)

Hands-on training in accelerated computing, AI, and accelerated data science to help you solve your most challenging problems

- Build and deploy end-to-end projects across a range of technologies and domains
- Hands-on experience with the most widely used, industry-standard software, tools, and frameworks
- Join live, instructor-led workshops and learn from NVIDIA-certified instructors who are experts in their fields
- Take self-paced, online courses anytime, anywhere
- Earn NVIDIA course certificates and certifications to demonstrate subject matter competency and support career growth

Learn more at: [www.nvidia.com/dli](https://www.nvidia.com/dli)



# DLI Programs for Educators



## Ambassador Program

- Qualified faculty and researchers can get certified to teach workshops to their students at no cost
- Hundreds of universities with certified NVIDIA Ambassadors around the world

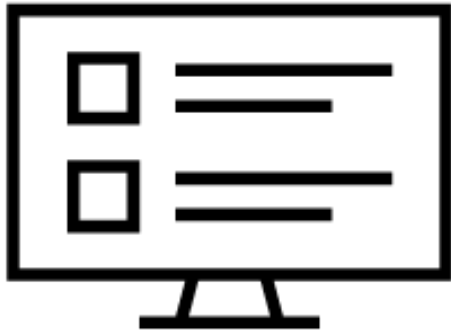


## Teaching Kit Program

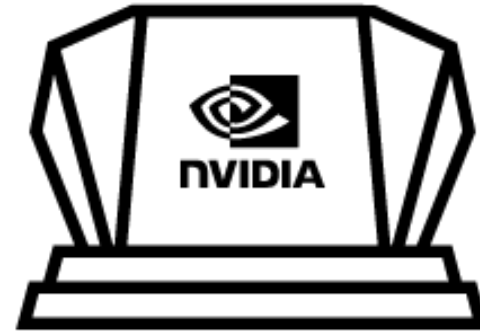
- Qualified university educators can download courseware across accelerated computing, deep learning, and robotics
- Kits include lecture materials, GPU cloud resources, access to self-paced courses, and more

[learn.nvidia.com/en-us/training/educator-programs](https://learn.nvidia.com/en-us/training/educator-programs)

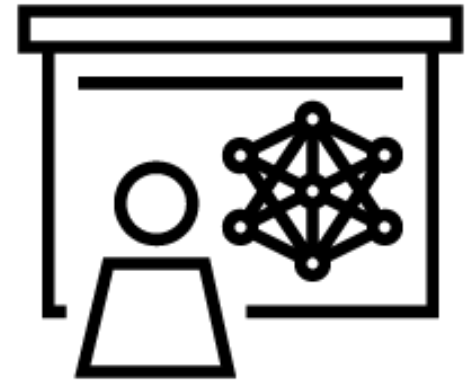
## Next Steps



Virtual Resources



NVIDIA GTC



Deep Learning Institute