



BRINGING AI AND GPU ACCELERATED COMPUTING TO UNIVERSITIES

KEVIN MCFALL, MASTER INSTRUCTOR, DEEP LEARNING INSTITUTE

15TH CENTRE FOR HIGH PERFORMANCE COMPUTING (CHPC) NATIONAL CONFERENCE

NVIDIA DEEP LEARNING INSTITUTE

Education and Training Solutions to Solve the World's Most Challenging Problems

Over
300,000
Trained

Over
14,000
Teaching Kits Downloaded

Over
3,000
Universities with Teaching Kits

83
Countries

Over
40
Hands-on Courses Available

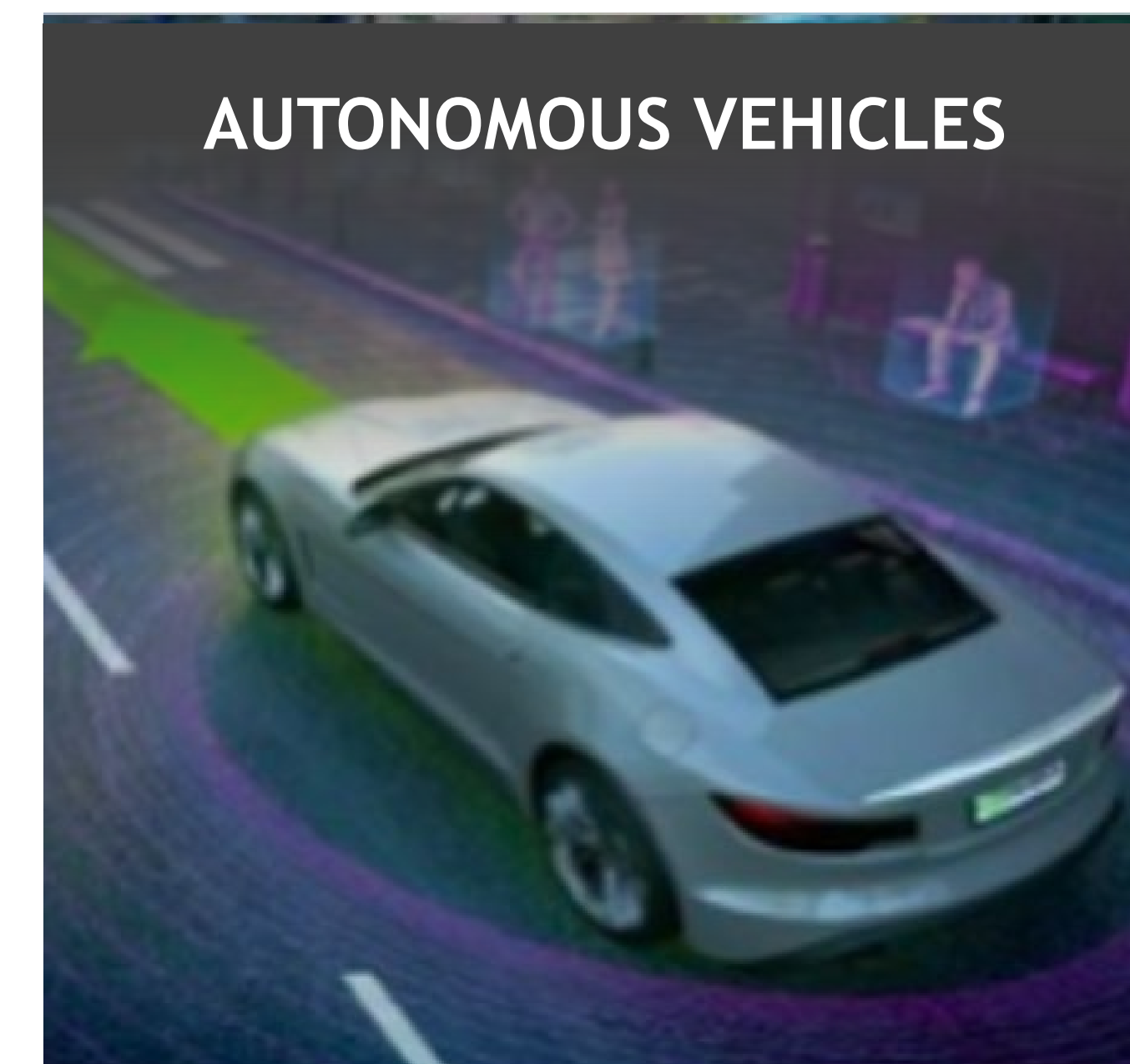
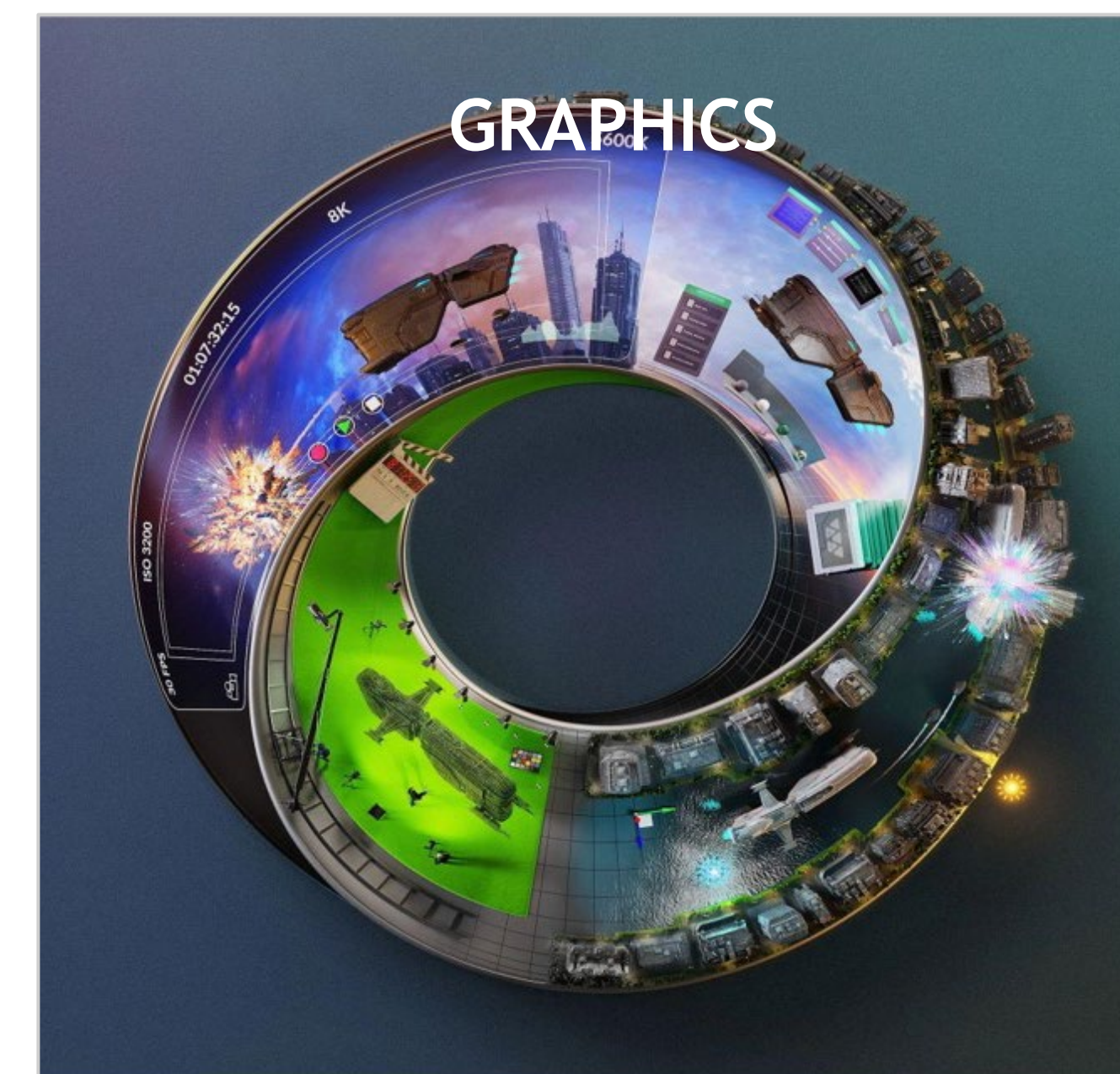
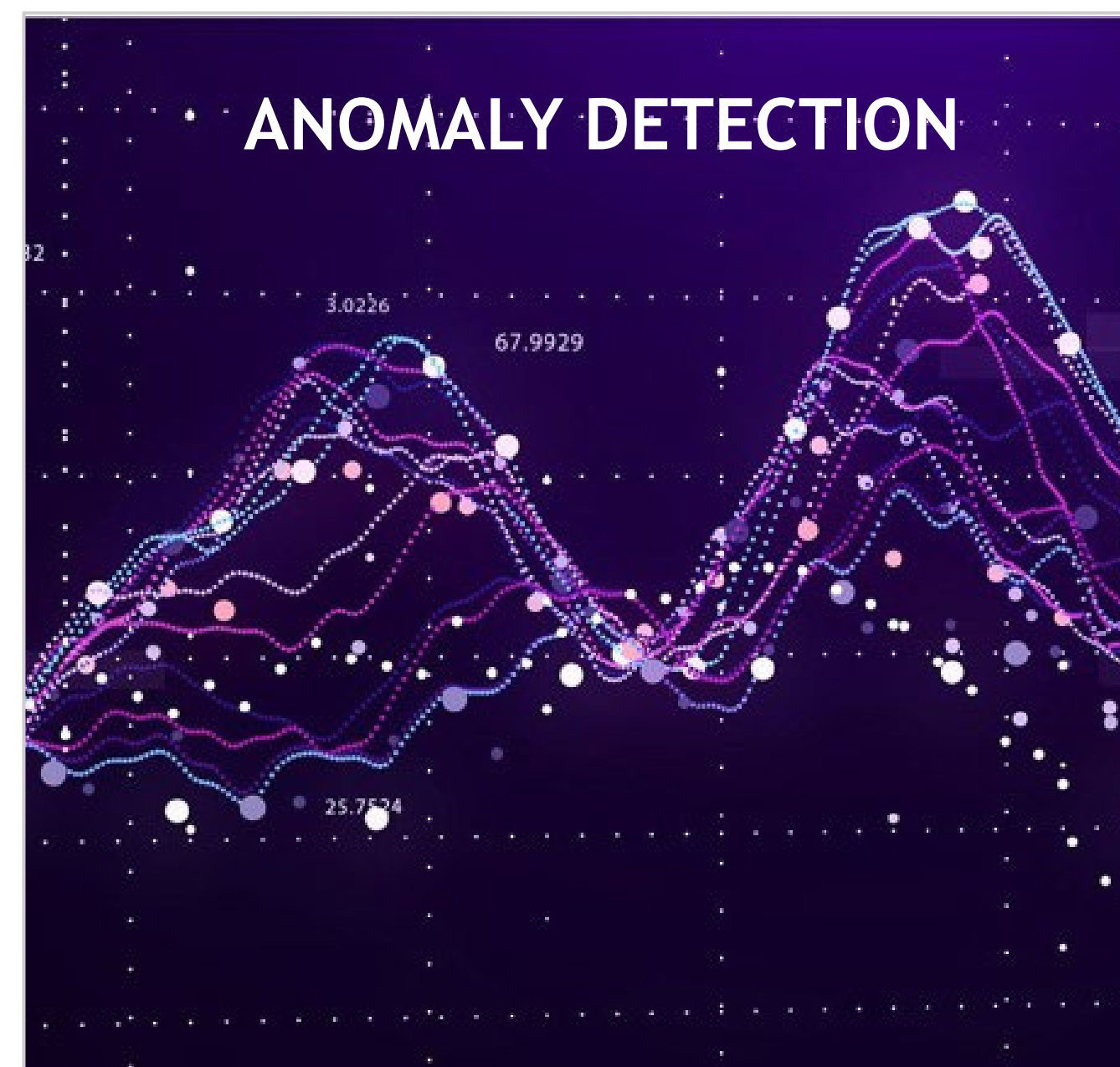
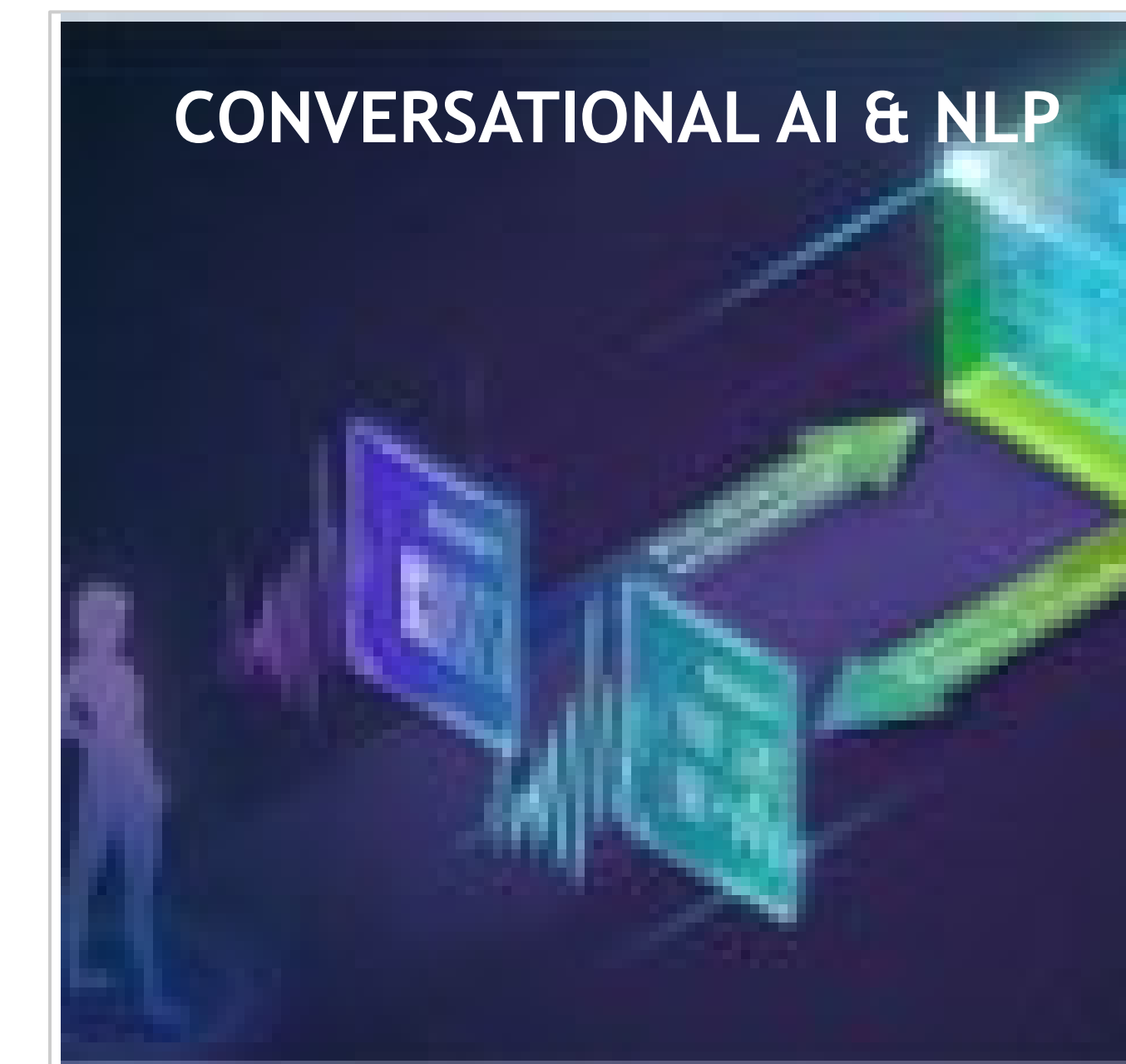
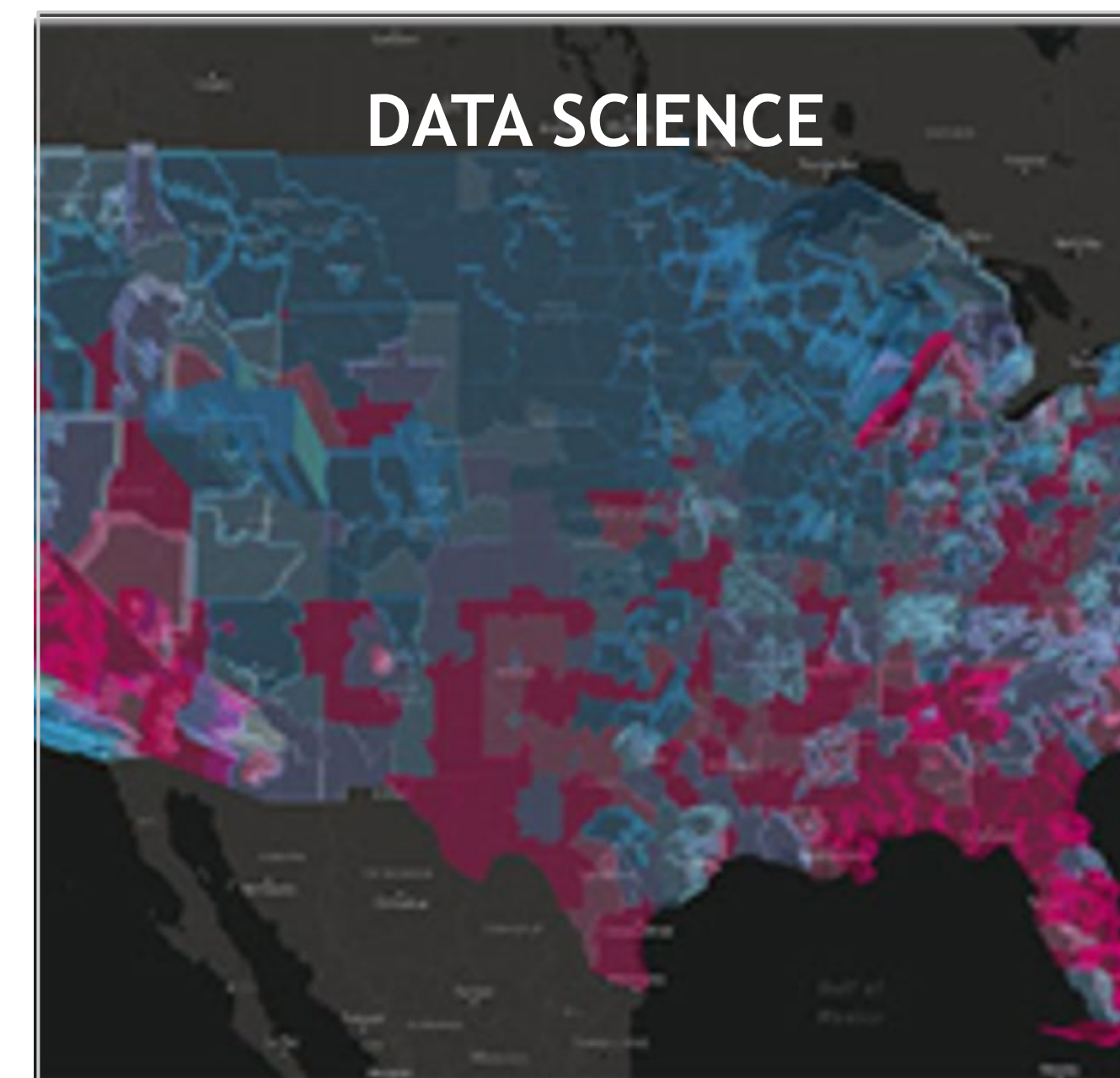
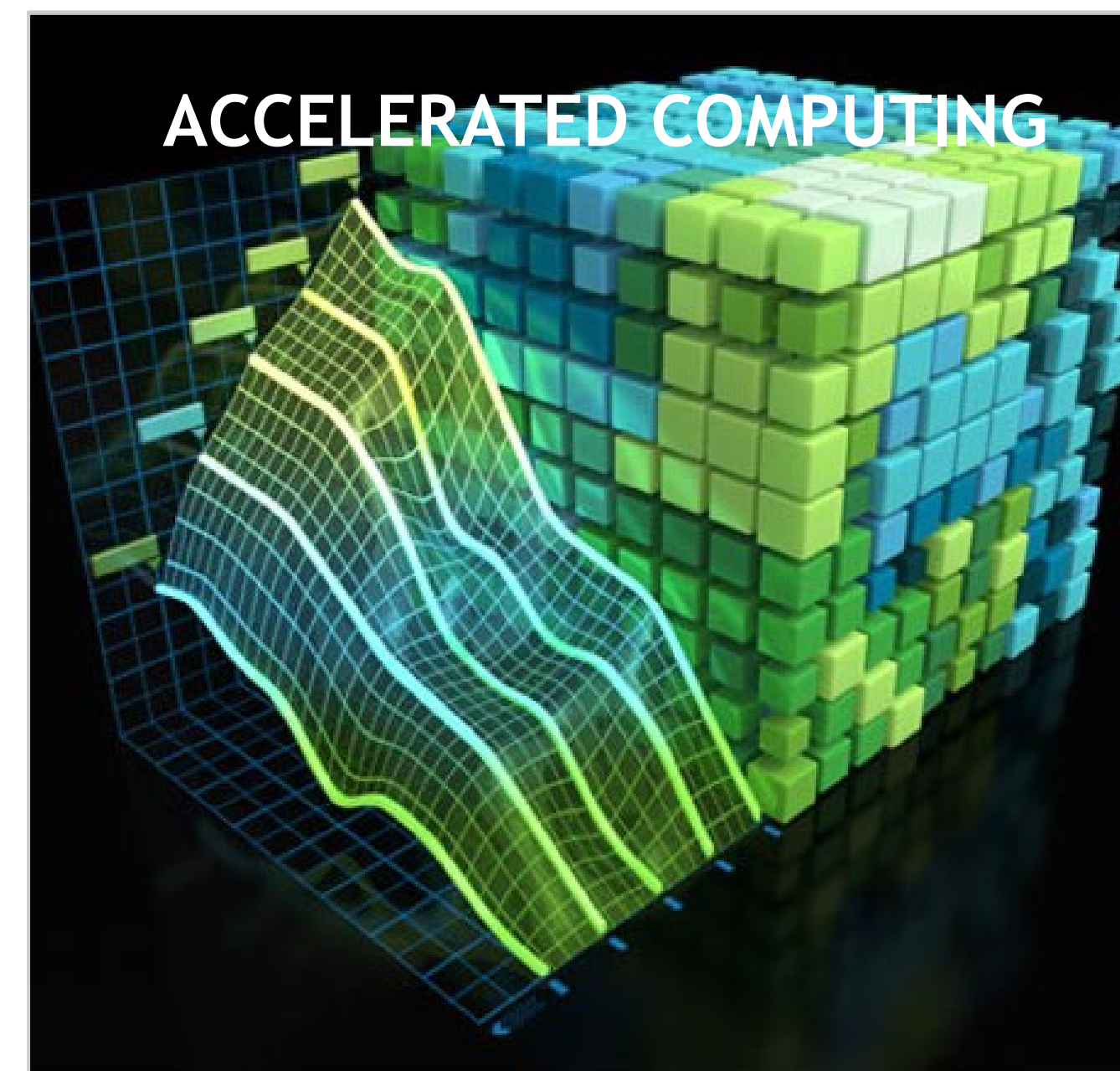
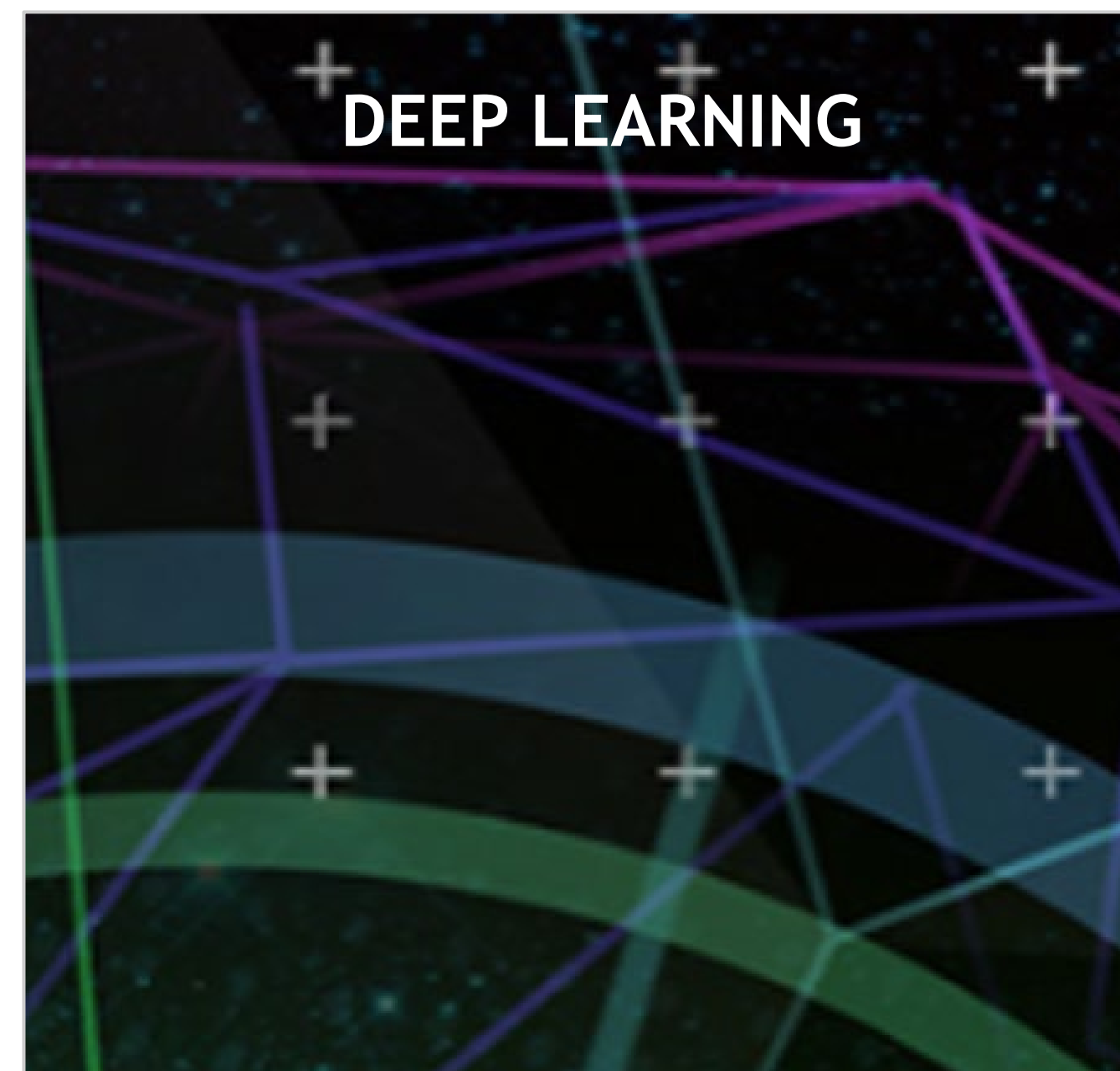
480
NVIDIA-certified Instructors

50+
Fortune 500 Organizations

5
Languages

RICH CONTENT PORTFOLIO

Fundamental and Advanced Hands-on Training in Key Technologies and Application Domains



See [DLI Content catalog](#) for full course listing. Includes instructor-led workshops and self-paced online courses.

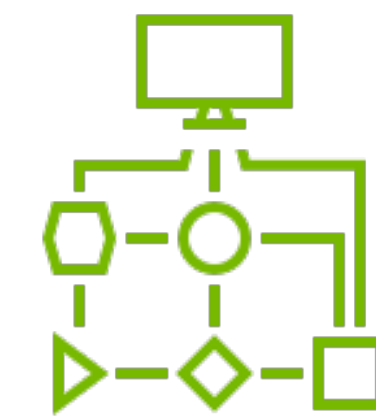
WHY COLLABORATE WITH NVIDIA ON AI EDUCATION?



Access to Technical
Expertise



Flexible Training
Solutions



Industry-Standard
Tools and Frameworks



Applications Across
Industries



Earn
Certificates



Real-World
Examples



GPU-Accelerated
Servers in the Cloud



Reduce Time to
Production

DLI PROGRAMS FOR EDUCATORS

How to Bring AI and GPU Computing into the Classroom

Three primary programs to support educators with their own development and teaching:

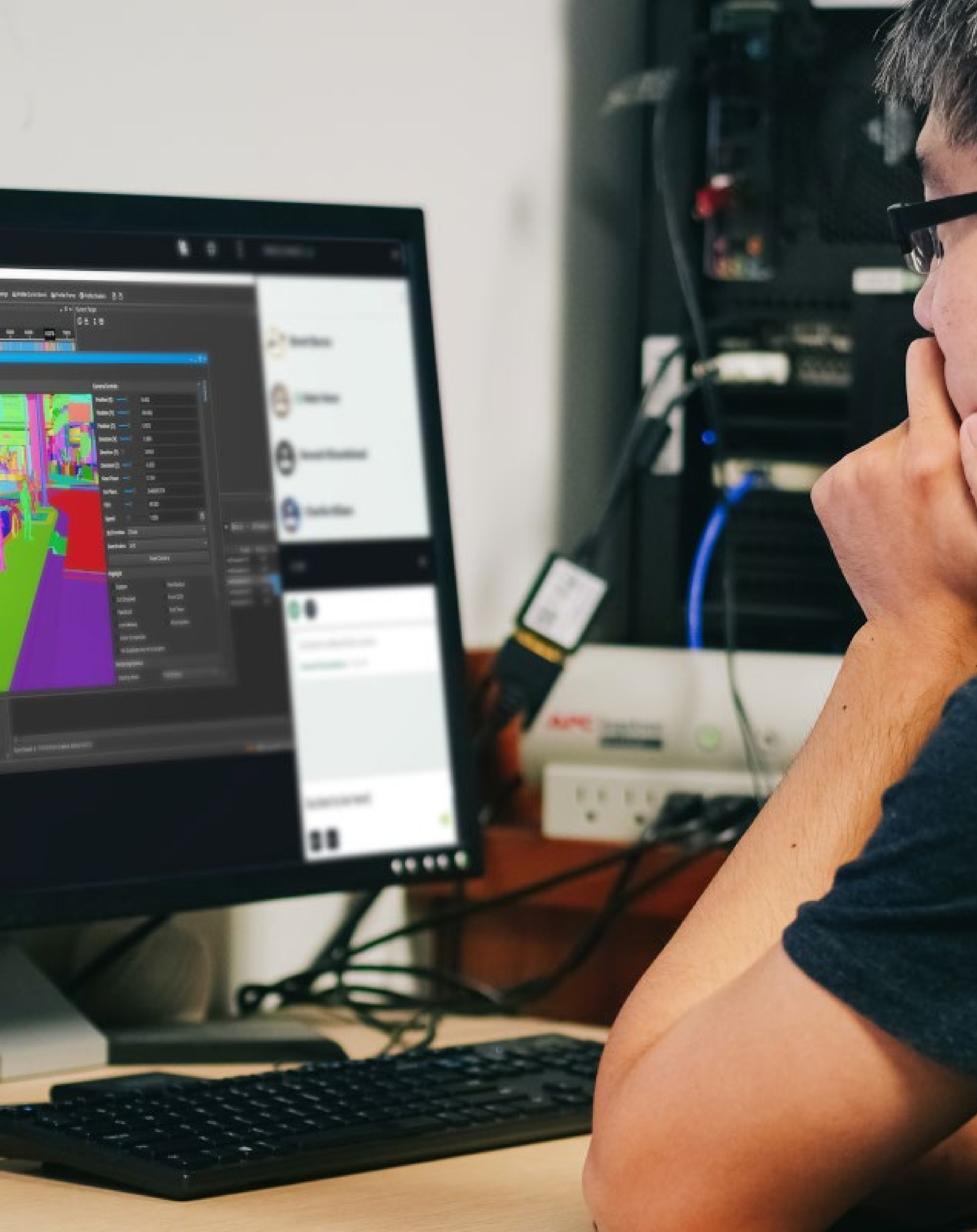
- DLI Faculty Development Workshops
- DLI Teaching Kits
- DLI University Ambassador Program

[YouTube Video: Furthering the Frontiers of Education](#)

Jay Urbain, Professor, Milwaukee School of Engineering (MSOE)

Hundreds of universities using the programs around the world, including:





FACULTY DEVELOPMENT

Free Training through DLI for University Faculty

[Register here](#) for the following workshops:

- Fundamentals of Deep Learning
 - January 20th
- Fundamentals of Accelerated Computing with CUDA C/C++
 - January 20th
- Fundamentals of Accelerated Computing with CUDA Python
 - January 20th
- Fundamentals of Accelerated Data Science
 - January 26th

Also [free to register](#) for University faculty:

- Building Transformer-Based NLP Applications
 - December 13th

DLI TEACHING KITS

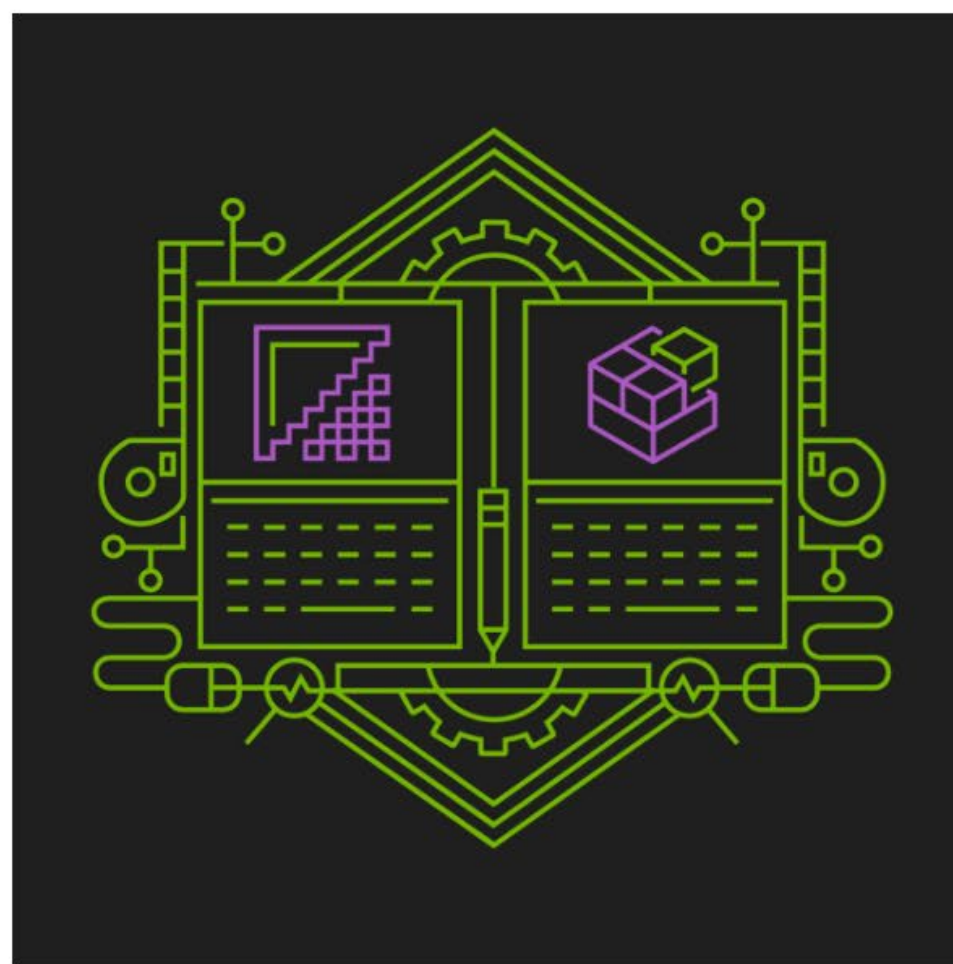
Lower the barrier of incorporating AI and GPU computing in coursework

[Request teaching kit access](#)

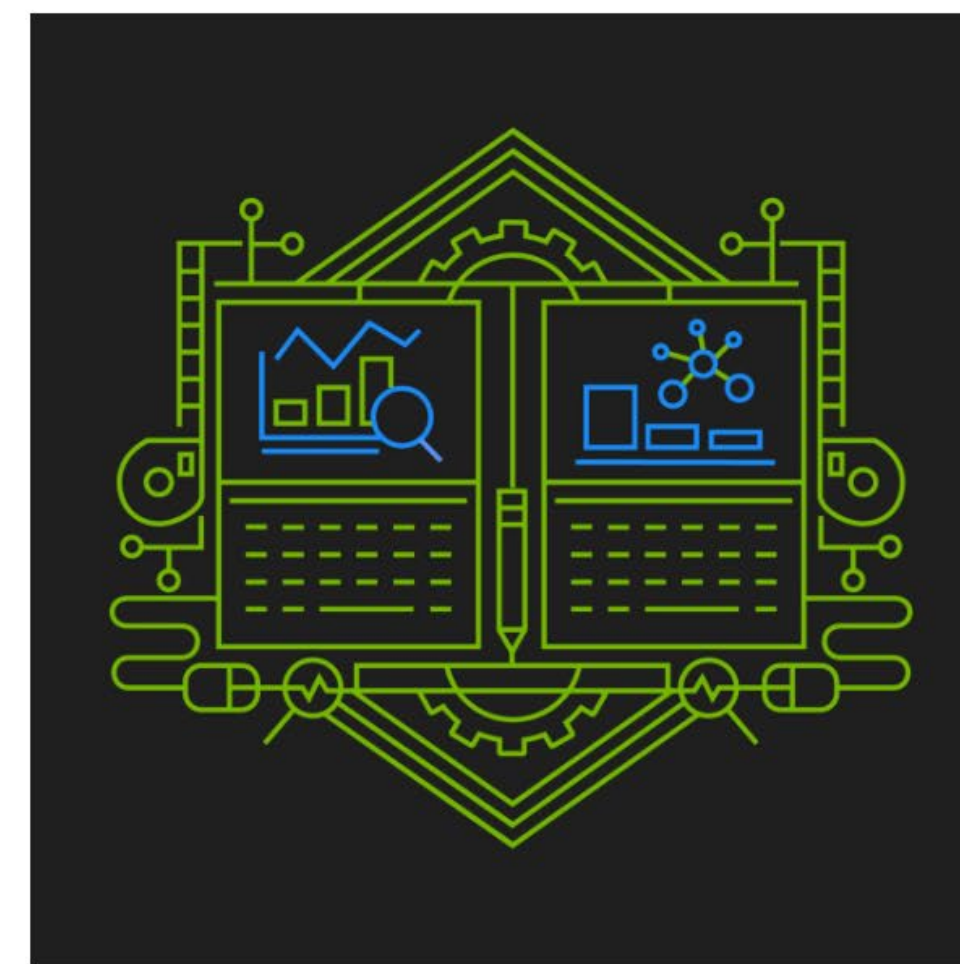
[Developer Blog: Why University Educators Are Pulling NVIDIA Teaching Kits into Their Classrooms](#)

[On-Demand Webinar: Bringing GPU Computing to Classroom](#)

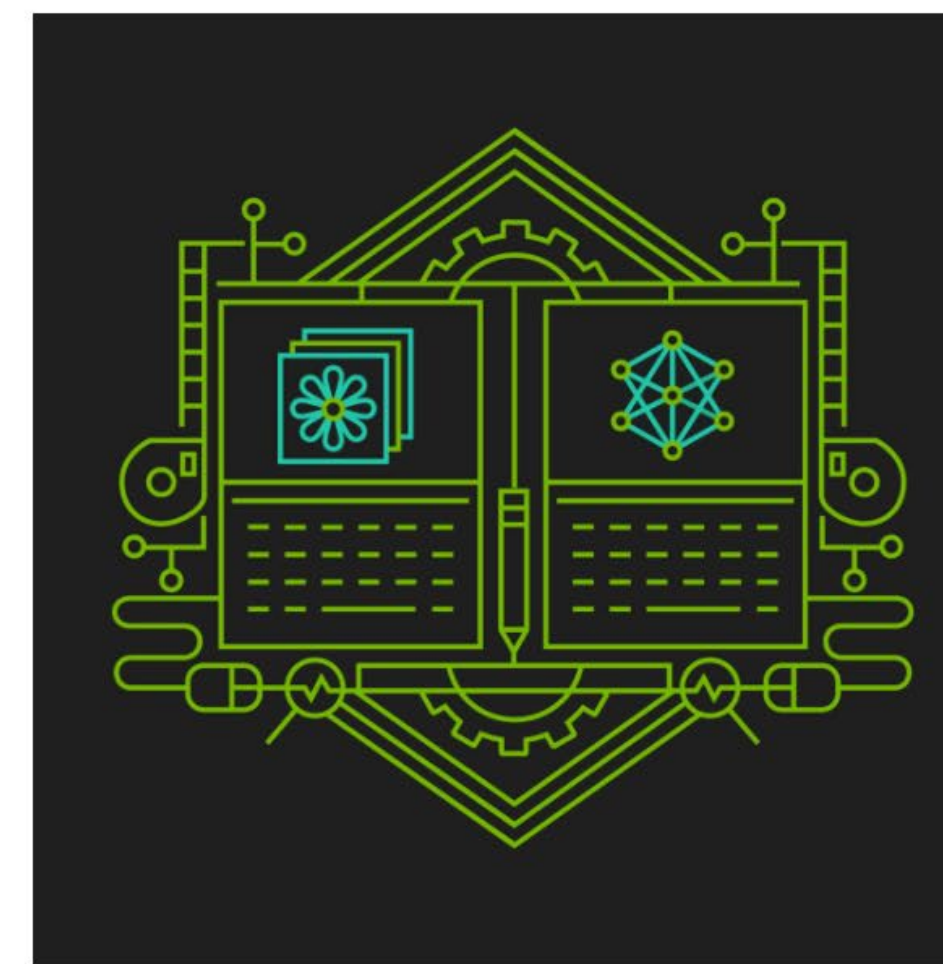
[YouTube Video: Enhancing Curricula with NVIDIA Teaching Kits](#)



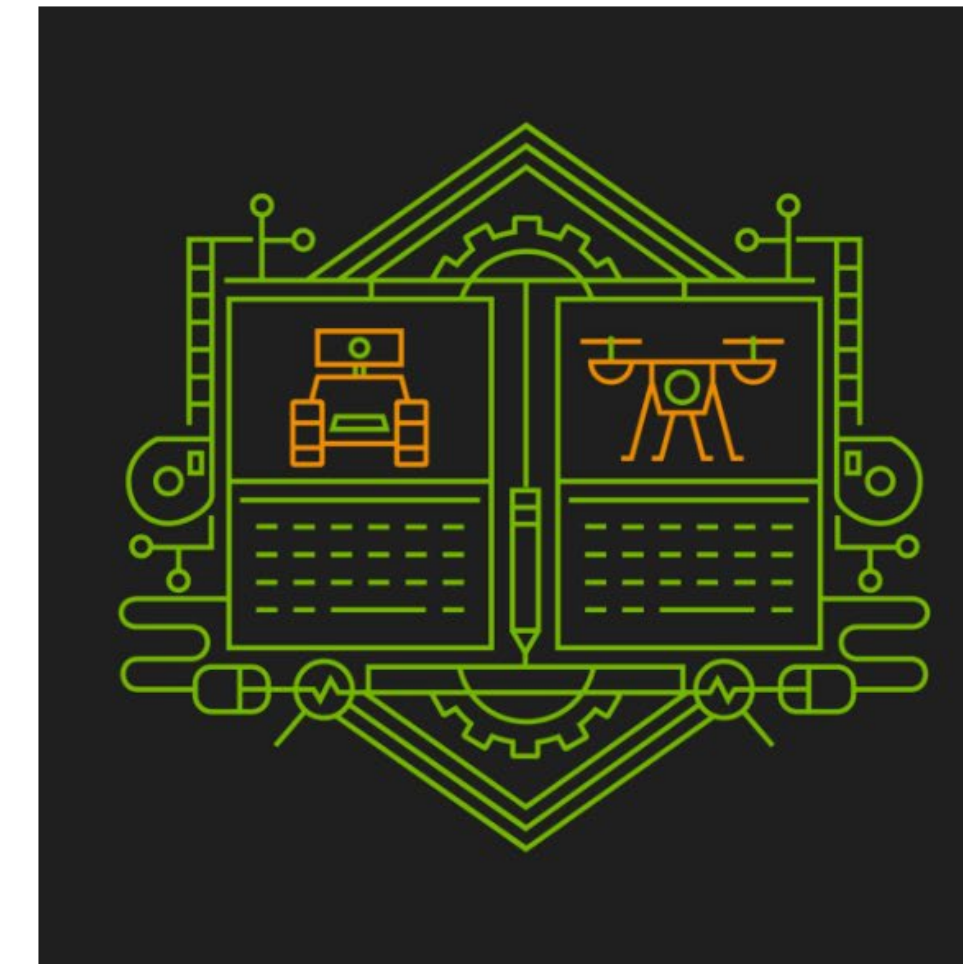
Accelerated Computing



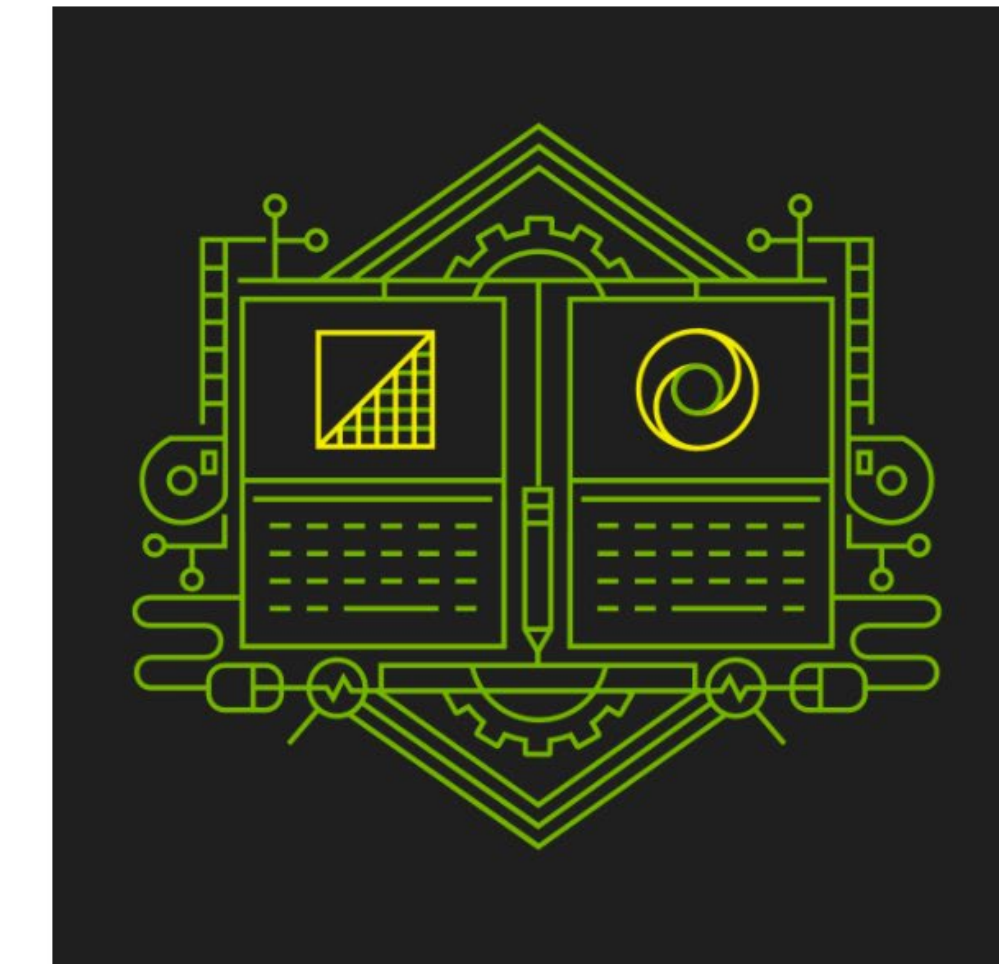
Data Science



Deep Learning



Robotics



Graphics and Omniverse

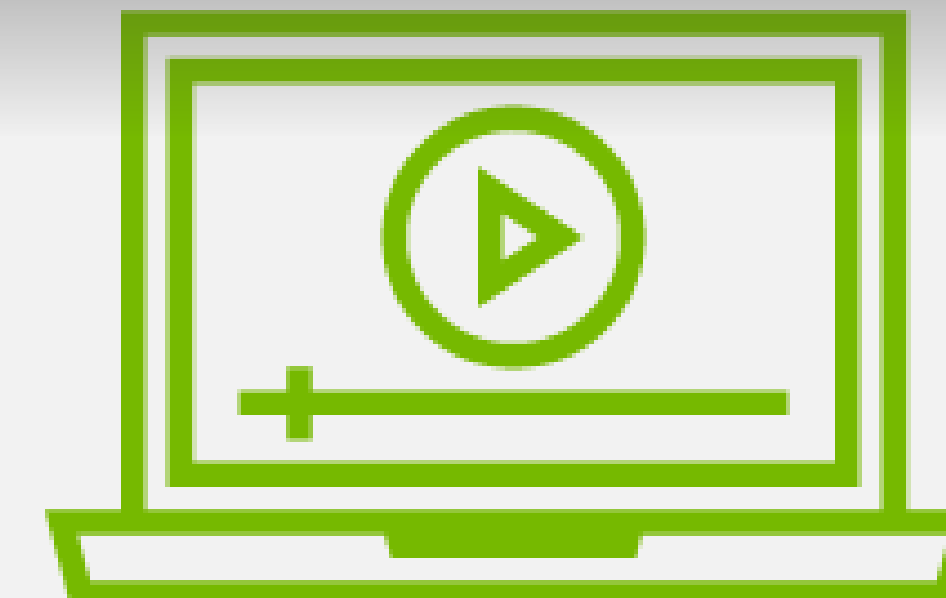
SYLLABI, LECTURE SLIDES,
E-BOOKS, AND VIDEOS



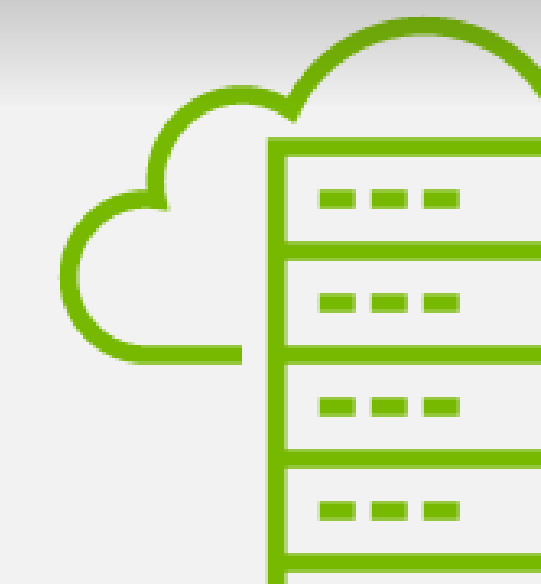
HANDS-ON LABS, QUIZZES,
EXAMS AND SOLUTIONS




FREE ACCESS TO ENTIRE
LIBRARY OF SELF-PACED
COURSES



FREE CLOUD-BASED GPU
COMPUTING RESOURCES





“DLI and Teaching Kit content is the best material for students’ development of deep learning skills. Upon completion of DLI courses, beginners gain valuable experience, and I’ve learned many teaching skills through delivering DLI courses.”

Young-Gon Kim, Researcher and DLI University Ambassador, Asan Medical Center/University of Ulsan, South Korea.

DLI UNIVERSITY AMBASSADOR PROGRAM

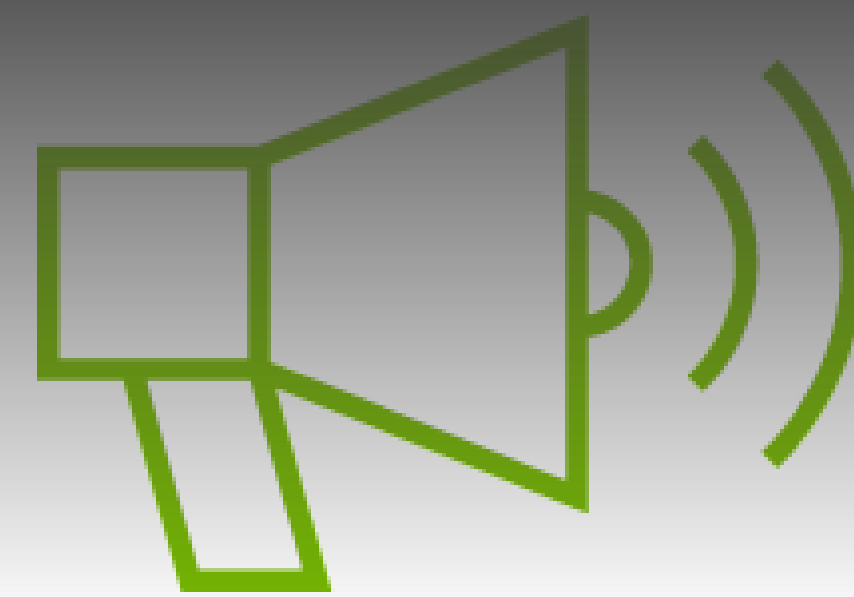
Become certified to deliver DLI instructor-led workshops to any academic audience

FLEXIBILITY



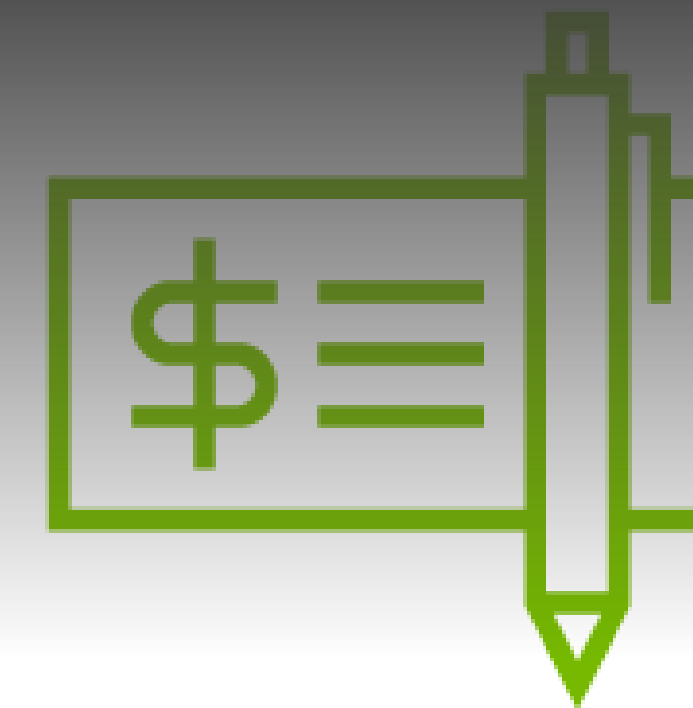
- Available globally
- Free access to proven, ready-made content and online training platform for DLI workshops
- Workshop content can be fit into the schedule and audience as preferred. For example: workshops can be delivered at academic conferences, to research teams, as part of an existing course, or for professional societies, student organizations, or faculty in other disciplines, onsite or online.

AWARENESS



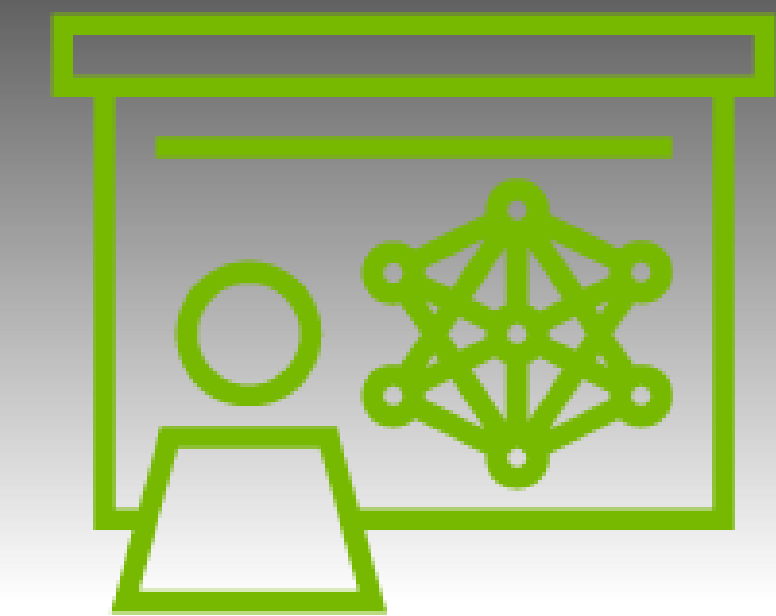
- Promotion of the workshops, research activities, academic conference presentations, etc
- Instructor certificates
- Networking with peers
- NVIDIA contributions to proposals for DLI at conferences

FINANCIAL SUPPORT




- Expense reimbursement (i.e. catering and/or travel) up to USD\$500 per event
- Recognition in a tiering system for highly active Ambassadors including monetary awards
- Paid opportunities to support NVIDIA's training activities
- Opportunity to sell training to industry

KNOWLEDGE



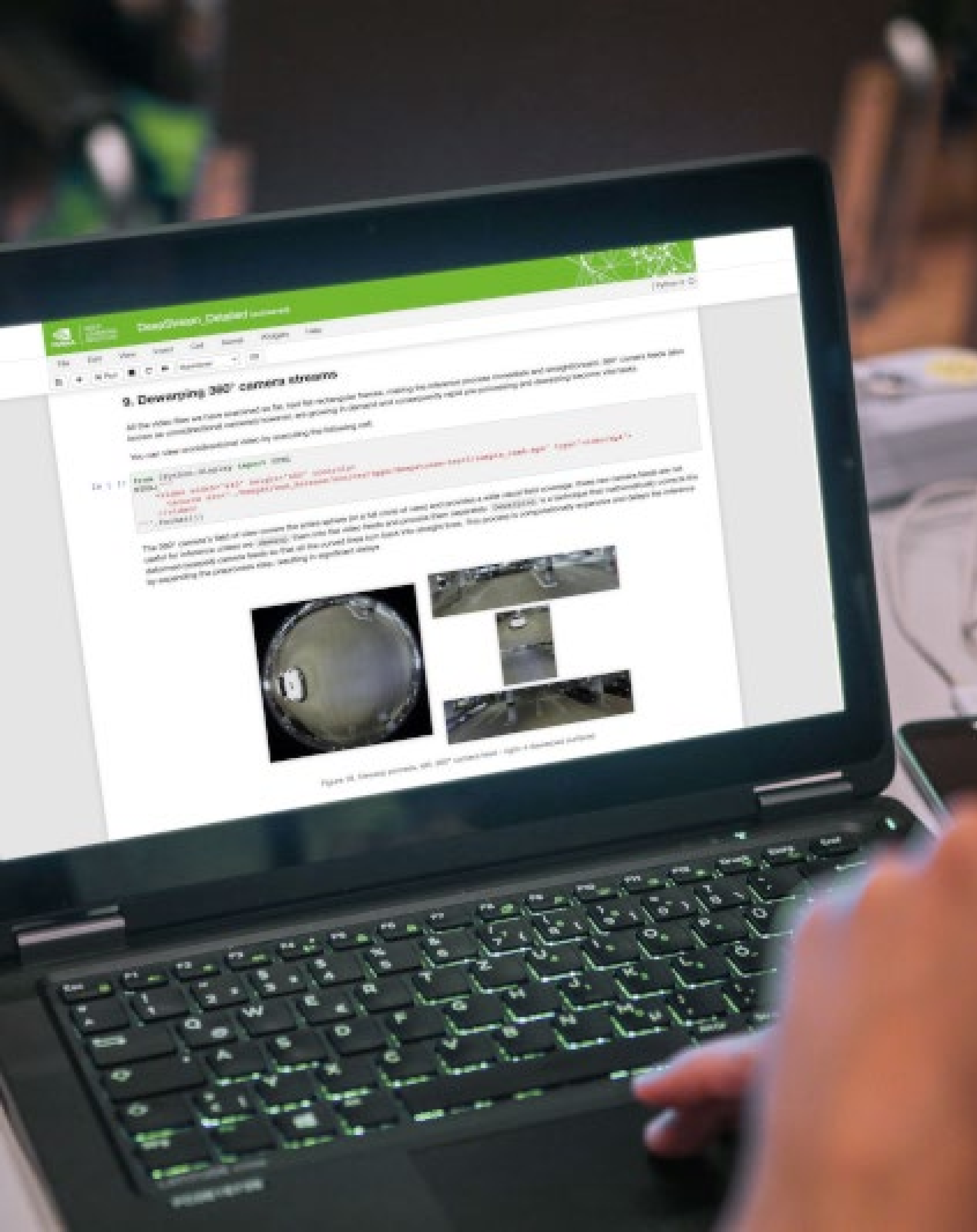
- Regular free workshops for skills development
- Access to the Ambassador Workshop Event Kit “train-the-trainer” content and workshop promo assets
- Newsletters with updates from DLI
- Early access to new DLI Teaching Kits and free cloud-based GPU platforms for students in your curriculum courses

[Apply here](#)



“The DLI Ambassador Program a fantastic initiative. The training platform is very good for introducing students to concepts. And most importantly, DLI is a great team to work with!”

Luigi Troiano, (Assoc.) Professor of Data Science, Big Data and AI at University of Salerno, Italy.



HOW TO LEARN MORE

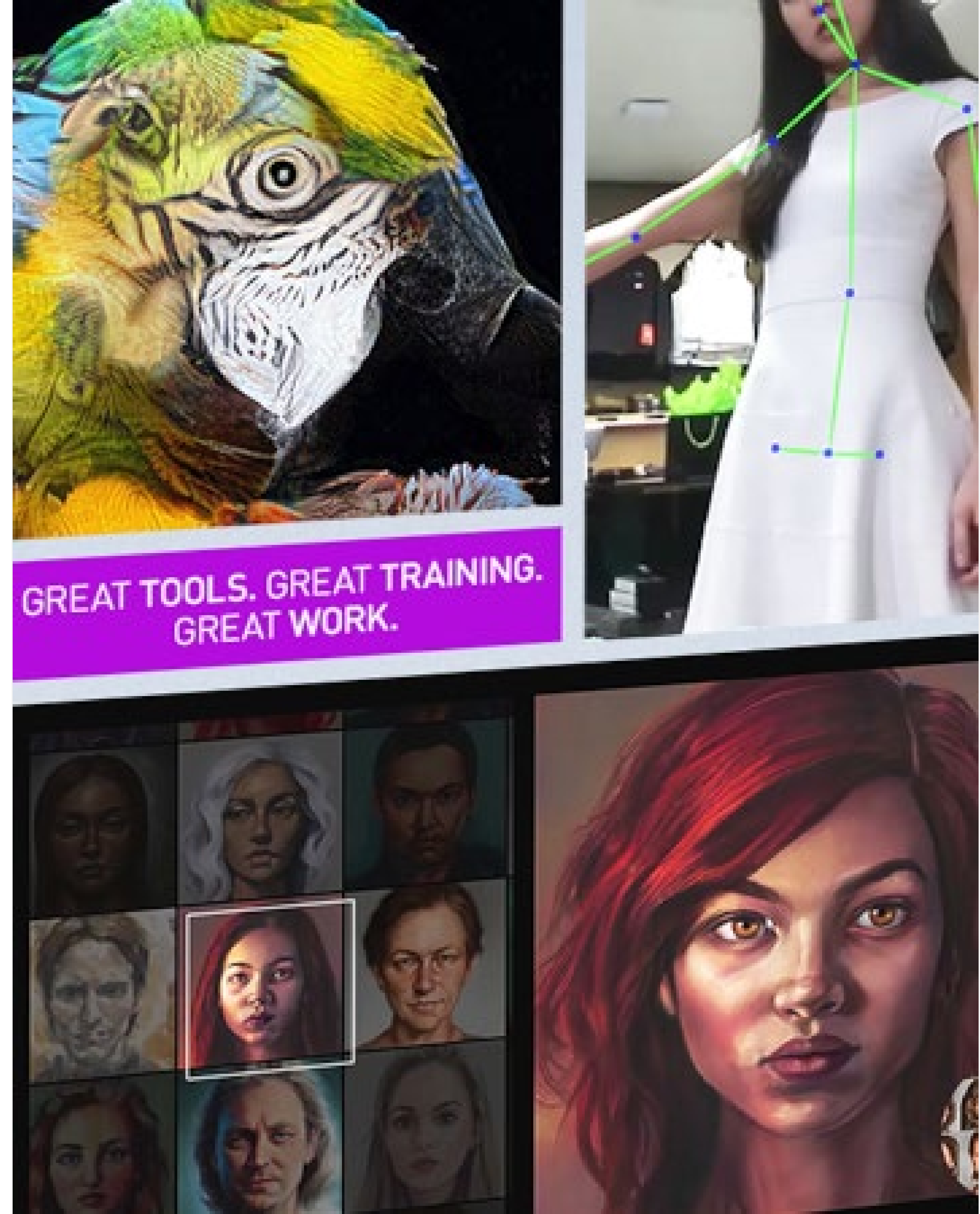
Courses for Everybody

- Free short self-paced courses:
 - [Building a Brain in 10 Minutes](#)
 - [Speed Up DataFrame Operations With RAPIDS cuDF](#)
 - [An Even Easier Introduction to CUDA](#)
- [Jetson AI Courses and Certifications](#) for educators teaching robotics and AI using NVIDIA® Jetson™, this certification recognizes competency in teaching AI on Jetson.
- [Getting Started with Universal Scene Description for Collaborative 3D Workflows](#) - for Graphics and Simulation
- [Introduction to AI in the Data Center](#) - for IT Managers

HOW TO LEARN MORE

Links to Resources to Help You

- A book titled “Learning Deep Learning” by Magnus Ekman, and other recommended [books](#)
- Attend [GTC](#) conferences
- [Join NVIDIA Developer Program](#). To ensure you have the best resources to do your life’s work, we’ve created an online space devoted to your needs, with access to free SDKs, technical documentation, peer and domain expert help, information on the right hardware to tackle the biggest challenges, and [NVIDIA NGC](#).
- [NVIDIA AI Essentials Learning Series](#)
- Explore the extensive catalog of sessions, podcasts, demos, research posters and more on [NVIDIA On Demand](#)



GREAT TOOLS. GREAT TRAINING.
GREAT WORK.

OTHER WAYS WE SUPPORT YOU

Hardware Grants, Recruiting, Start-Up Program

- [Hardware grant program](#)
- [Jetson Nano 2 GB Developer Kit grant program](#)
- [Graduate Fellowships](#)
- [University Recruiting](#)
- [NVIDIA Inception Program](#) is an acceleration platform for AI, data science and HPC startups, providing critical go-to-market support, expertise, and technology.

To learn more about NVIDIA support for developers in Higher Education and Research visit <https://developer.nvidia.com/higher-education-and-research>

For information around NVIDIA product offerings for Higher Education and Research visit <https://www.nvidia.com/en-gb/industries/higher-education-research/>







FACULTY DEVELOPMENT

Training through DLI

Free DLI Faculty Development workshops offer opportunity to learn state of the art Deep Learning, Data Science and Accelerated Computing, and how to integrate this content as hands-on training in the classroom complemented with theory when combined with Teaching Kits. Workshops are major step to optional instructor certification.

Regular schedule of global faculty development workshops will start in 2022. Taught by existing experienced DLI University Ambassadors the attendees have the capability of interacting with peers and learning new skills to help them to become DLI University Ambassadors themselves.

DLI UNIVERSITY AMBASSADOR PROGRAM

DLI awards qualified educators as certified DLI Ambassadors, enabling them to teach free DLI content exclusively to university students and staff.

With a variety of courses to become certified in, this opens new opportunities to bring further topics such as Natural Language Processing, Data Engineering and advanced CUDA into the classroom. Workshops can be split over several days and delivered onsite or in a virtual classroom open to attendees from other universities. All workshops have assessments and student certificates.

Candidates should have relevant teaching and research/work experience.

[Ambassador Spotlight: Ray Ptucha](#)
[On-Demand Webinar: How to become an Ambassador for Deep Learning](#)



TEACHING KIT BENEFITS FOR EDUCATORS

Removing Barriers to Teaching New Technologies

SAVES TIME



Developing new teaching materials like lecture slides and hands-on labs can take a significant amount of time for busy faculty. Teaching Kits provide a variety of source-level teaching materials—enough content to teach at least a full semester course—significantly cutting down the time required to develop course content.

REDUCES COST AND INFRASTRUCTURE NEEDS



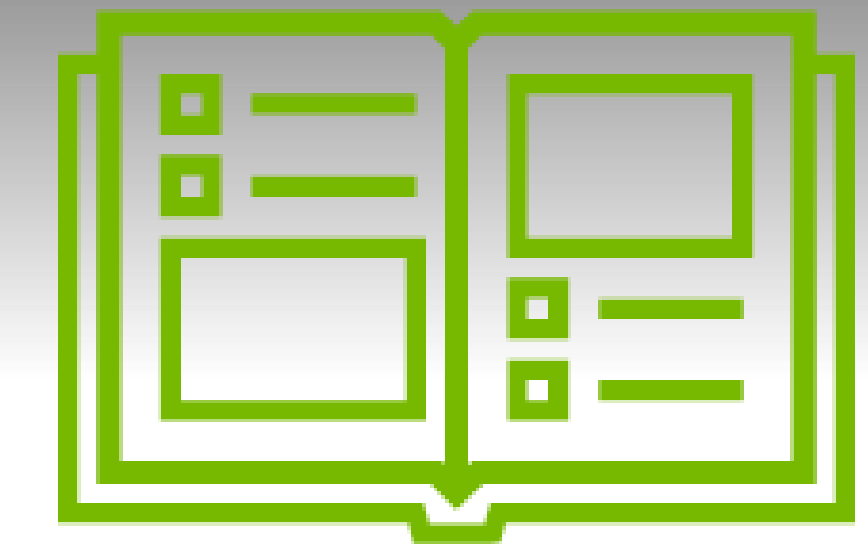
New teaching resources can have an associated monetary cost. Funding barriers can also be related to a school's infrastructure or geography. Teaching Kits provide educators and their students free access to GPUs in the cloud in two ways. For core programming labs, NVIDIA partners with Amazon's AWS Educate program to offer educators and their students extended cloud credits leveraging a variety of GPU instances. Additionally, Teaching Kits provide free access to NVIDIA's DLI online courses and student certificates. Resources such as these can help address both funding and infrastructure barriers to teaching.

ADDRESSES ACADEMIC THEORY AND FUNDAMENTALS



Many tech companies only provide applied industry and professional training material for universities to teach with, which usually lacks fundamentals and academic theory. Such material can be difficult to adapt to academic environments. NVIDIA co-develops Teaching Kits with academic partners to combine the latest industry trends, GPU architectures, and applications with fundamental theory and pedagogy from academia. This results in the highest quality teaching material. Each Teaching Kit addresses a different course type and includes update releases over time with new features and content.

SINGULAR, COMPREHENSIVE OFFERING BACKED BY INDUSTRY AND ACADEMIA



Another barrier for educators is experience with new content—not just the expertise required to teach the technology, but also the experience needed to select specific platforms and resources that are best for teaching. Teaching Kits provide a straightforward and singular, comprehensive offering backed by both industry and academia. Other program offerings help address experience barriers, including support from NVIDIA and NVIDIA's educator communities, roundtable and panel discussions, a web-based portal to the latest Teaching Kits, getting started guides, webinars, email updates, and an open channel to provide feedback and ask questions.



TRAINING FOR EVERYBODY

Upskilling with NVIDIA Subject Matter Experts

Training through NVIDIA certified instructors and subject matter experts is also available for university researchers, students and staff, onsite or remotely in a virtual classroom. A full overview of all our training content is available in the [DLI Content catalog](#)

General public workshops are offered throughout the year, full schedule is available on [our website](#). A discount is available for attendees from Higher Education Institutions.

[GTC conference](#) also includes wide training opportunities.

DLI also provides private workshops for universities through our certified instructors.

For a consultation on opportunities reach out to Mrs. Marjut Dieringer, mdieringer@nvidia.com or contact nvdli@nvidia.com