EM Photonics
Accelerated Computing Solutions

CUDA Training

Custom training that meets your needs

EM Photonics, a leader in the field of GPU computing, is proud to offer customized training courses taught by our GPU experts. We match our experience with your domain expertise to customize our course for your specific needs.

COURSE OUTLINE

These sections cover the basics of programming with CUDA. Throughout the class, we provide several case studies to reinforce the ideas covered in the class.

GENERAL TOPICS	
Parallel Programming	Learn how developers have traditionally approached parallel programming and how the massive computational power of the GPU has changed the computing landscape.
CUDA Fundamentals	Learn the basics of the CUDA language and the NVIDIA GPU architecture with an emphasis on porting existing code.
Build Environment	Understand techniques for integrating CUDA into your build system and strategies for cross-platform support of Windows, Mac, and Linux systems.
Optimization Techniques	Get the most out of your CUDA code by learning memory and computational optimizations, overlapped processing, and multi-GPU programming.
Deployment Strategies	Learn how to successfully deliver your CUDA code to your customers while protecting your IP.

Beyond the standard course, pick from a number of specialized modules to create a course that is tailored to your needs (see back).

CUSTOM COURSES

» Courses can be tailored to trainees of all skill levels

» Pick from specialized modules to create the course that is most important to you

» On-site training avoids the hassle of travel

WHY EM PHOTONICS

» Pioneers in GPU computing since 2005

» NVIDIA preferred CUDA consulting and training

» Work with the team that created CULA, one of the most prominent CUDA products available

» We match our experience with your domain expertise to customize our course for your specific needs

Contact Us:

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Expert engineers. Customized solutions. Valuable advice.

In addition to the standard topics, EM Photonics allows trainees to pick from a set of modules to customize their learning experience.

SPECIALIZED MODULES

Intensive Optimization I & II	Getting the absolute best performance out of a GPU requires a full understanding of all of its capabilities and limitations. These sections provide several case studies that cover advanced optimization techniques for achieving maximum performance.
OpenCL	OpenCL is a alternative language for GPU programming that features cross-platform support. Get an overview of OpenCL and compare its capabilities and usage to CUDA.
Linear Algebra	Learn how and where to use CULA, a GPU-accelerated linear algebra library in your code and discuss techniques for getting the most performance from it.
Embedded Computing	GPUs are increasingly being used for embedded and deployable applications, a field that has been dominated by FPGAs and DSPs. Understand how you can replace your expensive designs with powerful off-the-shelf GPUs.
Image and Signal Processing	GPUs have their roots in visual computation and, because of this, excel at visual and signal processing. Learn how to apply GPUs towards your demanding applications.
MATLAB Integration	MATLAB is a powerful prototyping environment but its speed is often too limiting to do intensive computational work. We'll show you how to accelerate your MATLAB code using CUDA.

We'll work with you to develop a schedule that best meets the goals of your organization. All of our modules and case studies are customizable and can be tailored to any skill level. New modules are constantly being added. Contact us if you have a specific interest not shown above.

For more information please send an email to training@emphotonics.com

COURSE OPTIONS

» Single- or multi-day trainings available

» Courses are offered at a flat rate for classes of up to 10 trainees

» Please contact us directly for pricing details

JUMPSTART YOUR DEVELOPMENT

Don't start from square one. Let EM Photonics help turn theory into practice by surveying the state of the art for your domain. Our expert engineers will create an entire day of custom content that provides guidance and solutions tailored directly for the problems you'll face. Please contact us for a quote on this service.