

**NOW  
AVAILABLE  
ONLINE**

*"This course showed me how to make my codes run faster as well as ways to develop them to fully utilize the hardware at a more fundamental level."*

*Kun Jiao, Schlumberger*

# Learn from the Experts CUDA TRAINING



## CUDA TRAINING - 4 Day Course

Partnering with NVIDIA, this professional four day course is designed for programmers who are looking to develop comprehensive skills in writing and optimizing applications that fully leverage the data-parallel processing capabilities of GPUs.

Established in 2004, Acceleware is a pioneer in high performance GPU computing developing the first commercially available GPU product in 2005 and the first CUDA accelerated application in 2009. Today Acceleware remains at the forefront of the industry delivering leading edge GPU enabled software and multi-core solutions for energy exploration and the electromagnetic industries.

## LEARN FROM THE BEST

The courses are taught by Acceleware programmers who bring real world experience into the classroom. To date Acceleware has delivered over 100 courses across four continents, teaching hundreds of programmers how to achieve maximum performance from CUDA enabled GPUs.

## PRIVATE ON-SITE COURSES

In addition to the published class schedule Acceleware offers private on-site courses. We will travel to your location and can tailor the content specifically to your needs.

## ONLINE COURSES

**New!** Acceleware offers online courses. You can connect to the course from the comforts of your own work environment and save the cost of travel.

## Course Outline

### Day 1: Introduction to GPU Programming and GPU Architectures

- Lecture 1 - Overview of GPU Computing
- Lecture 2 - Data-Parallel Architectures and the GPU Programming Model
- Lecture 3 - The GPU Memory Model & Thread Cooperation

### Day 2: Advanced GPU Programming

- Lecture 4 - Asynchronous Operations & Dynamic Parallelism
- Lecture 5 - Advanced CUDA Features
- Lecture 6 - Libraries

### Day 3: Introduction to Optimizations

- Lecture 7 - Debugging GPU Programs & Numerical Accuracy
- Lecture 8 - Introduction to Optimizations & Profiling
- Lecture 9 - Resource Management, Latency, and Occupancy

### Day 4: Optimizations and Case Study

- Lecture 10 - Arithmetic Optimizations
- Lecture 11 - Memory Performance Optimizations
- Lecture 12 - Case Study

In partnership with NVIDIA



Wrap-up

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