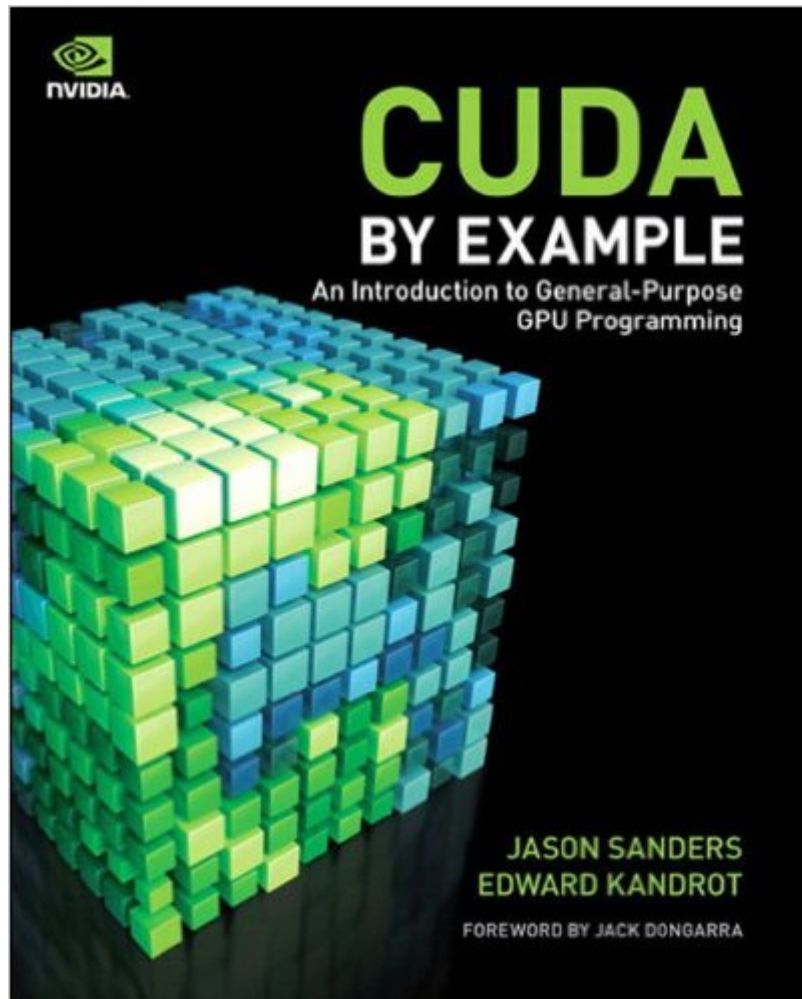


The book was found

CUDA By Example: An Introduction To General-Purpose GPU Programming, Portable Documents



Synopsis

CUDA is a computing architecture designed to facilitate the development of parallel programs. In conjunction with a comprehensive software platform, the CUDA Architecture enables programmers to draw on the immense power of graphics processing units (GPUs) when building high-performance applications. GPUs, of course, have long been available for demanding graphics and game applications. CUDA now brings this valuable resource to programmers working on applications in other domains, including science, engineering, and finance. No knowledge of graphics programming is required—just the ability to program in a modestly extended version of C.

Â CUDA by Example, written by two senior members of the CUDA software platform team, shows programmers how to employ this new technology. The authors introduce each area of CUDA development through working examples. After a concise introduction to the CUDA platform and architecture, as well as a quick-start guide to CUDA C, the book details the techniques and trade-offs associated with each key CUDA feature. Youâ€™ll discover when to use each CUDA C extension and how to write CUDA software that delivers truly outstanding performance. Â Major topics covered include

- Parallel programming
- Thread cooperation
- Constant memory and events
- Texture memory
- Graphics interoperability
- Atomics
- Streams
- CUDA C on multiple GPUs
- Advanced atomics

Additional CUDA resources

All the CUDA software tools youâ€™ll need are freely available for download from NVIDIA. <http://developer.nvidia.com/object/cuda-by-example.html>

Book Information

File Size: 15024 KB

Print Length: 312 pages

Simultaneous Device Usage: Up to 5 simultaneous devices, per publisher limits

Publisher: Addison-Wesley Professional; 1 edition (July 19, 2010)

Publication Date: July 19, 2010

Sold by:Â Digital Services LLC

Language: English

ASIN: B003VYBOSE

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Enabled

Best Sellers Rank: #420,275 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #66 in Books > Computers & Technology > Programming > Parallel Programming #298 in Books > Computers & Technology > Hardware & DIY > Design & Architecture #1166 in Books > Computers & Technology > Programming > Introductory & Beginning

Customer Reviews

"CUDA by example: an introduction to general-purpose GPU programming" is a brand new text by Jason Sanders and Edward Kandrot, senior members of NVIDIA's CUDA development team. This is basically the second introductory text to hit the market on general-purpose GPU programming, the first one being "Programming Massively Parallel Processors: A Hands-On Approach" by David Kirk and Wen-Mei Hwu. The Good: it is not very common to find a technical book in this price range that is not simply in greyscale. Perhaps unsurprisingly for an NVIDIA book there's quite a bit of green, and this definitely enhances the reading experience. On a more substantive note: the authors really mean the "by example" part of "CUDA by example". From chapter 3 onward, all the main concepts are fleshed out by showing and dissecting lots of code -- probably more so than in Kirk & Hwu's text, which includes application case studies, but also more extensive treatments of the CUDA architecture. As with any example-based book, it is important to run and modify the programs while reading through the text. Right now there are a few hiccups with the files Sanders & Kandrot were kind enough to provide (e.g. as of this writing README.txt and license.txt do not have the appropriate permissions set), but I'm pretty sure these are just teething troubles which will disappear soon enough. The writing is cheerful (e.g. "For those readers who are more familiar with Star Trek than with weaving, a warp in this context has nothing to do with the speed of travel through space.", p. 106) and the explanations are for the most part clear, the language being pretty lucid -- once again, probably more so than in the Kirk & Hwu volume.

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