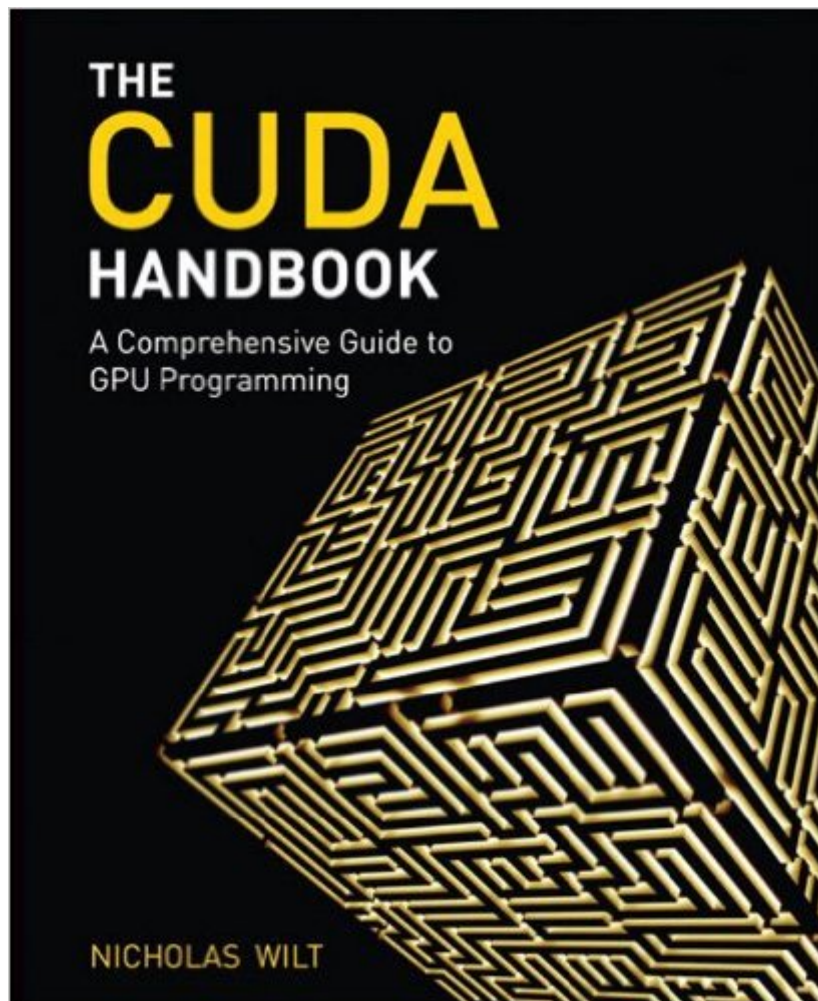


The book was found

The CUDA Handbook: A Comprehensive Guide To GPU Programming



Synopsis

The CUDA Handbook begins where CUDA by Example (Addison-Wesley, 2011) leaves off, discussing CUDA hardware and software in greater detail and covering both CUDA 5.0 and Kepler. Every CUDA developer, from the casual to the most sophisticated, will find something here of interest and immediate usefulness. Newer CUDA developers will see how the hardware processes commands and how the driver checks progress; more experienced CUDA developers will appreciate the expert coverage of topics such as the driver API and context migration, as well as the guidance on how best to structure CPU/GPU data interchange and synchronization. The accompanying open source code “more than 25,000 lines of it, freely available at www.cudahandbook.com” is specifically intended to be reused and repurposed by developers. Designed to be both a comprehensive reference and a practical cookbook, the text is divided into the following three parts: Part I, Overview, gives high-level descriptions of the hardware and software that make CUDA possible. Part II, Details, provides thorough descriptions of every aspect of CUDA, including Memory Streams and events Models of execution, including the dynamic parallelism feature, new with CUDA 5.0 and SM 3.5 The streaming multiprocessors, including descriptions of all features through SM 3.5 Programming multiple GPUs Texturing The source code accompanying Part II is presented as reusable microbenchmarks and microdemos, designed to expose specific hardware characteristics or highlight specific use cases. Part III, Select Applications, details specific families of CUDA applications and key parallel algorithms, including Streaming workloads Reduction Parallel prefix sum (Scan) N-body Image Processing These algorithms cover the full range of potential CUDA applications.

Book Information

File Size: 49019 KB

Print Length: 528 pages

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

Publisher: Addison-Wesley Professional; 1 edition (June 11, 2013)

Publication Date: June 11, 2013

Sold by: Digital Services LLC

Language: English

ASIN: B00DCNNJE6

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Enabled

Best Sellers Rank: #601,432 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #86

inÂ Books > Computers & Technology > Programming > Parallel Programming #3006 inÂ Kindle Store > Kindle eBooks > Computers & Technology > Programming #6264 inÂ Books > Computers & Technology > Programming > Languages & Tools

Customer Reviews

"The CUDA Handbook" is the largest(480p) and latest(June 2013) of NVIDIA's series of GPU programming books. It is also the most comprehensive and useful GPU programming reference for programmers to date. It's a tough world out there for programmers who are trying to keep up with changes in technology and this reference makes the future a much more comfortable place to live. Learn about GPGPU programming and get ahead of the crowd.For those programmers who haven't had the time to perceive the changes, GPU programming is a current change in programming design that is sweeping the world of network VOIP management, parallel analysis and simulation, and even supercomputing in a single box. I have personally run a Starfield Simulation on a portable with an i7 processor that increased in speed 112 times by using the internal NVIDIA GeForce 570M. The Starfield frame time reduced from about 2 seconds to about .015 sec. Imagine what I could do with a GeForce 690! Charts indicate that it might exceed 700 times the computing speed!!This book not only tells me how to arrange the software to work with the NVIDIA SDK, but it also shows me the important differences in the architecture of many of the NVIDIA cards to obtain optimum performance.The world of computing is still filled with 32 bit machines(or OS systems) using most of their memory to get their assigned tasks completed. Many of these machines do not have even four core CPUs, forget having over 4GB of memory. They fill computers in production devices, desktops in database support companies, and the racks of IT departments everywhere. The need for faster and more computing does not slow down or stop for these hardware limits. Ant the cost to replace them outright is prohibitive.

[Download to continue reading...](#)

The CUDA Handbook: A Comprehensive Guide to GPU Programming CUDA Fortran for Scientists and Engineers: Best Practices for Efficient CUDA Fortran Programming CUDA by Example: An Introduction to General-Purpose GPU Programming, Portable Documents GPU Computing Gems Emerald Edition (Applications of GPU Computing Series) Programming #8:C Programming Success

in a Day & Android Programming In a Day! (C Programming, C++programming, C++ programming language, Android , Android Programming, Android Games) Programming #57: C++ Programming Professional Made Easy & Android Programming in a Day (C++ Programming, C++ Language, C++for beginners, C++, Programming ... Programming, Android, C, C Programming) Programming #45: Python Programming Professional Made Easy & Android Programming In a Day! (Python Programming, Python Language, Python for beginners, ... Programming Languages, Android Programming) C#: Programming Success in a Day: Beginners guide to fast, easy and efficient learning of C# programming (C#, C# Programming, C++ Programming, C++, C, C Programming, C# Language, C# Guide, C# Coding) Android: Programming in a Day! The Power Guide for Beginners In Android App Programming (Android, Android Programming, App Development, Android App Development, ... App Programming, Rails, Ruby Programming) DOS: Programming Success in a Day: Beginners guide to fast, easy and efficient learning of DOS programming (DOS, ADA, Programming, DOS Programming, ADA ... LINUX, RPG, ADA Programming, Android, JAVA) ASP.NET: Programming success in a day: Beginners guide to fast, easy and efficient learning of ASP.NET programming (ASP.NET, ASP.NET Programming, ASP.NET ... ADA, Web Programming, Programming) FORTRAN Programming success in a day:Beginners guide to fast, easy and efficient learning of FORTRAN programming (Fortran, C++, C, C programming, ... Programming, MYSQL, SQL Programming) Prolog Programming; Success in a Day: Beginners Guide to Fast, Easy and Efficient Learning of Prolog Programming (Prolog, Prolog Programming, Prolog Logic, ... Programming, Programming Code, Java) Parallel Programming: Success in a Day: Beginners' Guide to Fast, Easy, and Efficient Learning of Parallel Programming (Parallel Programming, Programming, ... C++ Programming, Multiprocessor, MPI) Programming: Computer Programming for Beginners: Learn the Basics of Java, SQL & C++ - 3. Edition (Coding, C Programming, Java Programming, SQL Programming, JavaScript, Python, PHP) Raspberry Pi 2: Raspberry Pi 2 Programming Made Easy (Raspberry Pi, Android Programming, Programming, Linux, Unix, C Programming, C+ Programming) R Programming: Learn R Programming In A DAY! - The Ultimate Crash Course to Learning the Basics of R Programming Language In No Time (R, R Programming, ... Course, R Programming Development Book 1) Professional CUDA C Programming XML Programming Success in a Day: Beginner's Guide to Fast, Easy, and Efficient Learning of XML Programming (XML, XML Programming, Programming, XML Guide, ... XSL, DTD's, Schemas, HTML5, JavaScript) Programming Raspberry Pi 3: Getting Started With Python (Programming Raspberry Pi 3, Raspberry Pi 3 User Guide, Python Programming, Raspberry Pi 3 with Python Programming)

