



GPGPU Programming for Games and Science (Hardback)

By David H. Eberly

Taylor & Francis Inc, United States, 2014. Hardback. Condition: New. Language: English. Brand new Book. An In-Depth, Practical Guide to GPGPU Programming Using Direct3D 11 GPGPU Programming for Games and Science demonstrates how to achieve the following requirements to tackle practical problems in computer science and software engineering: Robustness Accuracy Speed Quality source code that is easily maintained, reusable, and readable The book primarily addresses programming on a graphics processing unit (GPU) while covering some material also relevant to programming on a central processing unit (CPU). It discusses many concepts of general purpose GPU (GPGPU) programming and presents practical examples in game programming and scientific programming. The author first describes numerical issues that arise when computing with floating-point arithmetic, including making trade-offs among robustness, accuracy, and speed. He then shows how single instruction multiple data (SIMD) extensions work on CPUs since GPUs also use SIMD. The core of the book focuses on the GPU from the perspective of Direct3D 11 (D3D11) and the High Level Shading Language (HLSL). This chapter covers drawing 3D objects; vertex, geometry, pixel, and compute shaders; input and output resources for shaders; copying data between CPU and GPU; configuring two or more GPUs to act as one; and IEEE floating-point support on a GPU. The...



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Reviews

This book is definitely not straightforward to get started on studying but extremely exciting to read. It is really simplistic but shocks in the 50 percent of the ebook. Once you begin to read the book, it is extremely difficult to leave it before concluding.

-- Ally Reichel

This publication is amazing. It is definitely basic but shocks in the fifty percent of your publication. You won't feel monotony at anytime of your own time (that's what catalogues are for concerning if you question me).

-- Prof. Kirk Cruickshank DDS