

Programming Massively Parallel Processors: A Hands-on Approach (Applications of GPU Computing Series)



Programming Massively Parallel Processors discusses basic concepts about parallel programming and GPU architecture. Massively parallel refers to the use of a large number of processors to perform a set of computations in a coordinated parallel way. The book details various techniques for constructing parallel programs. It also discusses the development process, performance level, floating-point format, parallel patterns, and dynamic parallelism. The book serves as a teaching guide where parallel programming is the main topic of the course. It builds on the basics of C programming for CUDA, a parallel programming environment that is supported on NVIDIA GPUs. Composed of 12 chapters, the book begins with basic information about the GPU as a parallel computer source. It also explains the main concepts of CUDA, data parallelism, and the importance of memory access efficiency using CUDA. The target audience of the book is graduate and undergraduate students from all science and engineering disciplines who need information about computational thinking and parallel programming. Teaches computational thinking and problem-solving techniques that facilitate high-performance parallel computing. Utilizes CUDA (Compute Unified Device Architecture), NVIDIA's software development tool created specifically for massively parallel environments. Shows you how to achieve both high-performance and high-reliability using the CUDA programming model as well as OpenCL.

Programming Massively Parallel Processors: A Hands-on Approach (Applications of GPU Computing Series) by David B. Kirk, Wen-mei W. Hwu (2010) Programming Massively Parallel Processors discusses basic concepts about parallel Series, (Applications of GPU Computing Series). By David B. Kirk - Programming Massively Parallel Processors: A Hands-on Approach (Applications of GPU Computing Series) Paperback February 5, 2010. Programming Massively Parallel Processors: A Hands-on Approach, Second Edition, teaches students how to program Chapter 2 - History of

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