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Chapter 7 - Using CUDA in PracticeINTRODUCTION; SERIAL AND PARALLEL CODE; PROCESSING DATASETS; PROFILING; AN EXAMPLE USING AES; CONCLUSION; References; Chapter 8 - Multi-CPU and Multi-GPU Solutions; INTRODUCTION; LOCALITY; MULTI-CPU SYSTEMS; MULTI-GPU SYSTEMS; ALGORITHMS ON MULTIPLE GPUS; WHICH GPU?; SINGLE-NODE SYSTEMS; STREAMS; MULTIPLE-NODE SYSTEMS; CONCLUSION; Chapter 9 - Optimizing Your Application; STRATEGY 1: PARALLEL/SERIAL GPU/CPU PROBLEM BREAKDOWN; STRATEGY 2: MEMORY CONSIDERATIONS; STRATEGY 3: TRANSFERS; STRATEGY 4: THREAD USAGE, CALCULATIONS, AND DIVERGENCE; STRATEGY 5: ALGORITHMS
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ALGORITHMIC ISSUESFINDING AND AVOIDING ERRORS; DEVELOPING FOR FUTURE GPUS; FURTHER RESOURCES; CONCLUSION; References; Index

Sommario/riassunto

If you need to learn CUDA but don't have experience with parallel computing, *CUDA Programming: A Developer's Introduction* offers a detailed guide to CUDA with a grounding in parallel fundamentals. It starts by introducing CUDA and bringing you up to speed on GPU parallelism and hardware, then delving into CUDA installation. Chapters on core concepts including threads, blocks, grids, and memory focus on both parallel and CUDA-specific issues. Later, the book demonstrates CUDA in practice for optimizing applications, adjusting to new hardware, and solving common problems. <u
