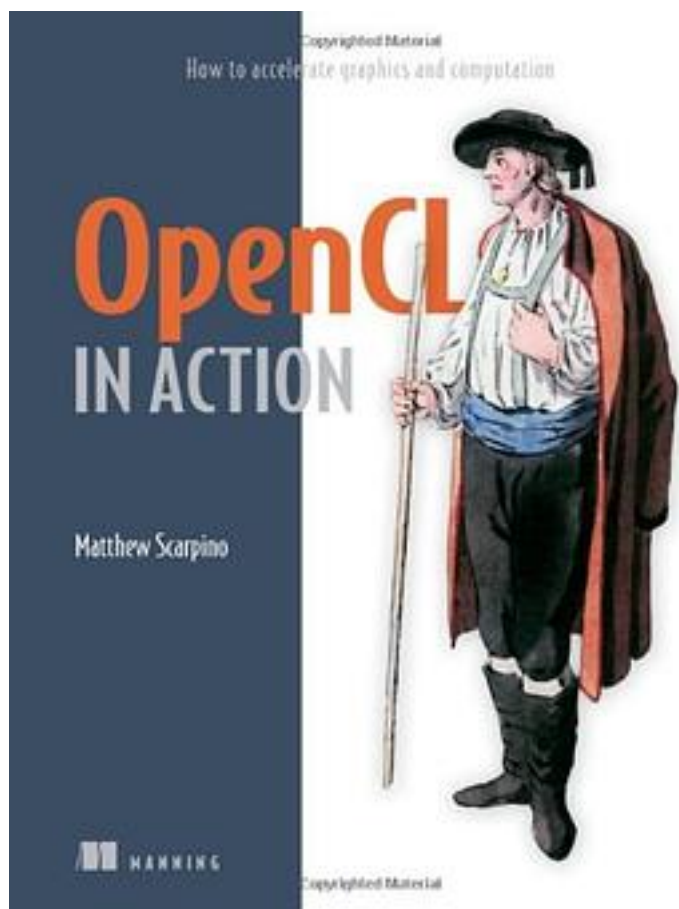# OpenCL in Action

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Summary

OpenCL in Action is a thorough, hands-on presentation of OpenCL, with an eye toward showing developers how to build high-perfor mance applications of their own. It

begins by presenting the core concepts behind OpenCL, including vector computing, parallel programming, and multi-threaded operations, and then guides you step-by-step from simple data structures to complex functions.

About the Technology

Whatever system you have, it probably has more raw processing power than you're using. OpenCL is a high-performance programming language that maximizes computational power by executing on CPUs, graphics processors, and other number-crunching devices. It's perfect for speed-sensitive tasks like vector computing, matrix operations, and graphics acceleration.

About this Book

OpenCL in Action blends the theory of parallel computing with the practical reality of building high-performance applications using OpenCL. It first guides you through the fundamental data structures in an intuitive manner. Then, it explains techniques for high-speed sorting, image processing, matrix operations, and fast Fourier transform. The book concludes with a deep look at the all-important subject of graphics acceleration. Numerous challenging examples give you different ways to experiment with working code.

作者介绍:

目录: PART 1 FOUNDATIONS OF OPENCL PROGRAMMING
Introducing OpenCL
Host programming: fundamental data structures
Host programming: data transfer and partitioning
Kernel programming: data types and device memory
Kernel programming: operators and functions
Image processing
Events, profiling, and synchronization
Development with C++
Development with Java and Python
General coding principles
PART 2 CODING PRACTICAL ALGORITHMS IN OPENCL
Reduction and sorting
Matrices and QR decomposition
Sparse matrices
Signal processing and the fast Fourier transform
PART 3 ACCELERATING OPENGL WITH OPENCL
Combining OpenCL and OpenGL
Textures and renderbuffers
· · · · · · (收起)

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标签

OpenCL

并行

GPGPU

编程

Programming

计算机

GPU

软件开发

评论

循序渐进，还用了隐喻来说明，挺适合初学者的，话说OpenCL的用法和OpenGL真像

OpenCL真是繁杂...

读的是中文版

条理清晰，然却浅略，仅适入门

快读完了，内容还算可以把，基本入门是够了。书中关于 部分 参数设置范围的地方有

错误，但是对于整数不存在影像。

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opencl入门书

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书评

第一次在豆瓣上写书评，真心感觉这本书写的非常好。学习opencl最先接触到的是opencl
编程指南，但是看那本书真的是不知所云，翻译的一塌糊涂，书里面一上去就开始长篇大论，真的很不适合初学者，光把第一章就看了五遍还愣是没看懂，接着往后看发现对一些函数的介绍也仅...

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