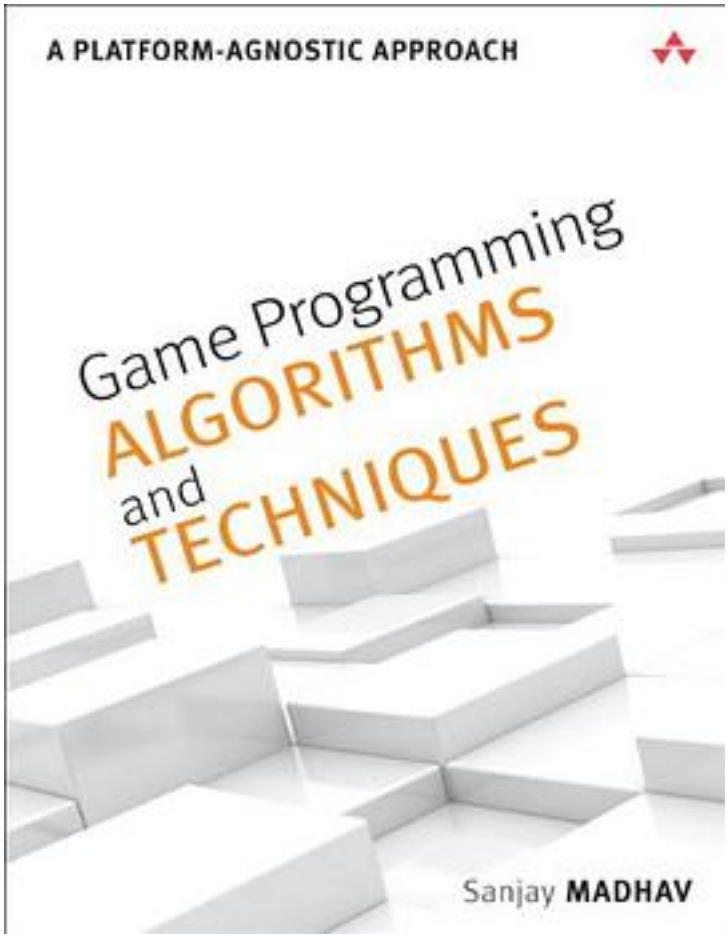
Game Programming Algorithms and Techniques



Game Programming Algorithms and Techniques_下载链接1_

著者:Sanjay Madhav

出版者:Addison-Wesley Professional

出版时间:2014-1-2

装帧:Paperback

isbn:9780321940155

Game Programming Algorithms and Techniques is a detailed overview of many of the important algorithms and techniques used in video game programming today. Designed for programmers who are familiar with object-oriented programming and

basic data structures, this book focuses on practical concepts that see actual use in the game industry.

Sanjay Madhav takes a unique platform- and framework-agnostic approach that will help develop virtually any game, in any genre, with any language or framework. He presents the fundamental techniques for working with 2D and 3D graphics, physics, artificial intelligence, cameras, and much more.

Each concept is illuminated with pseudocode that will be intuitive to any C#, Java, or C++ programmer, and has been refined and proven in Madhav’ s game programming courses at the University of Southern California. Review questions after each chapter help solidify the most important concepts before moving on.

Madhav concludes with a detailed analysis of two complete games: a 2D iOS side-scroller (written in Objective-Cusing cocos2d) and a 3D PC/Mac/Linux tower defense game (written in C# using XNA/ MonoGame). These games illustrate many of the algorithms and techniques covered in the earlier chapters, and the full source code is available at gamealgorithms.net.

Coverage includes

-Game time management, speed control, and ensuring consistency on diverse hardware

- Essential 2D graphics techniques for modern mobile gaming

- Vectors, matrices, and linear algebra for 3D games

- 3D graphics including coordinate spaces, lighting and shading, z-buffering, and quaternions

- Handling today’ s wide array of digital and analog inputs

- Sound systems including sound events, 3D audio, and digital signal processing

- Fundamentals of game physics, including collision detection and numeric integration

- Cameras: first-person, follow, spline, and more

- Artificial intelligence: pathfinding, state-based behaviors, and strategy/planning

- User interfaces including menu systems and heads-up displays

- Scripting and text-based data files: when, how, and where to use them

- Basics of networked games including protocols and network topology

作者介绍:

Sanjay Madhav is a lecturer at the University of Southern California, where he teaches several courses about and related to video game programming. Prior to joining USC full time, he worked as a programmer at several video game developers, including Electronic Arts, Neversoft, and Pandemic Studios. Although he has experience

programming a wide range of systems, his primary interest is in gameplay mechanics. Some of his credited games include Medal of Honor: Pacific Assault, Tony Hawk’s Project 8 , Lord of the Rings: Conquest , and The Saboteur .

In 2008, Sanjay began teaching part-time at USC while still working full time in the game industry. After Pandemic Studios was shuttered at the end of 2009, he decided to refocus his efforts on teaching up-and-coming game programmers. His flagship course is an undergraduate-level game programming course that he has taught for more than ten consecutive semesters.

目录:

Game Programming Algorithms and Techniques_下载链接1_

标签

游戏开发

算法

编程

Algorithms

游戏编程

游戏

遊戲開發

开发

评论

Game Programming Algorithms and Techniques_下载链接1_

书评

书的内容是游戏引擎架构的简易浓缩版，基本上概括了游戏开发的方方面面。
名字有点吓人，算法与技巧几个字很容易让初学者敬而远之。不过还是比较简单适合入门的，但是还是需要一点编程基础的。
书中的一些demo的伪代码还是蛮不错，有比较好的参考意义。
也推荐想做策划的看，以...

花了两天时间翻完，大概介绍了游戏开发期间所需要使用的常用的算法和编程模式，是一个挺好的入门书……
要说什么不足，就是各方面都有涉及，但是各方面涉猎的都不深，所以需要读者自己去额外补充对应的知识，例如针对各类积分的运用时就只是简单的介绍了各类积分的实现和原理...

看的是英文版的电子版，感觉像是overview之类的书籍，对游戏编程中主要方面都有提及，但是基本都是简单的介绍一下。 个人比较喜欢的是第三章LINEAR ALGEBRA FOR GAMES，介绍游戏编程中用到一些主要线性代数知识，结合实际分析，感觉写得比一般的线性代数教材易懂。

中文版地址： https://book.douban.com/subject/26906838/
这本书是南加州大学本科教材，适合系统了解游戏编程方方面面 利益相关： 译者
博客：jjyy.guru 140字140字140字140字140字140字140字140字140字

Game Programming Algorithms and Techniques_下载链接1_