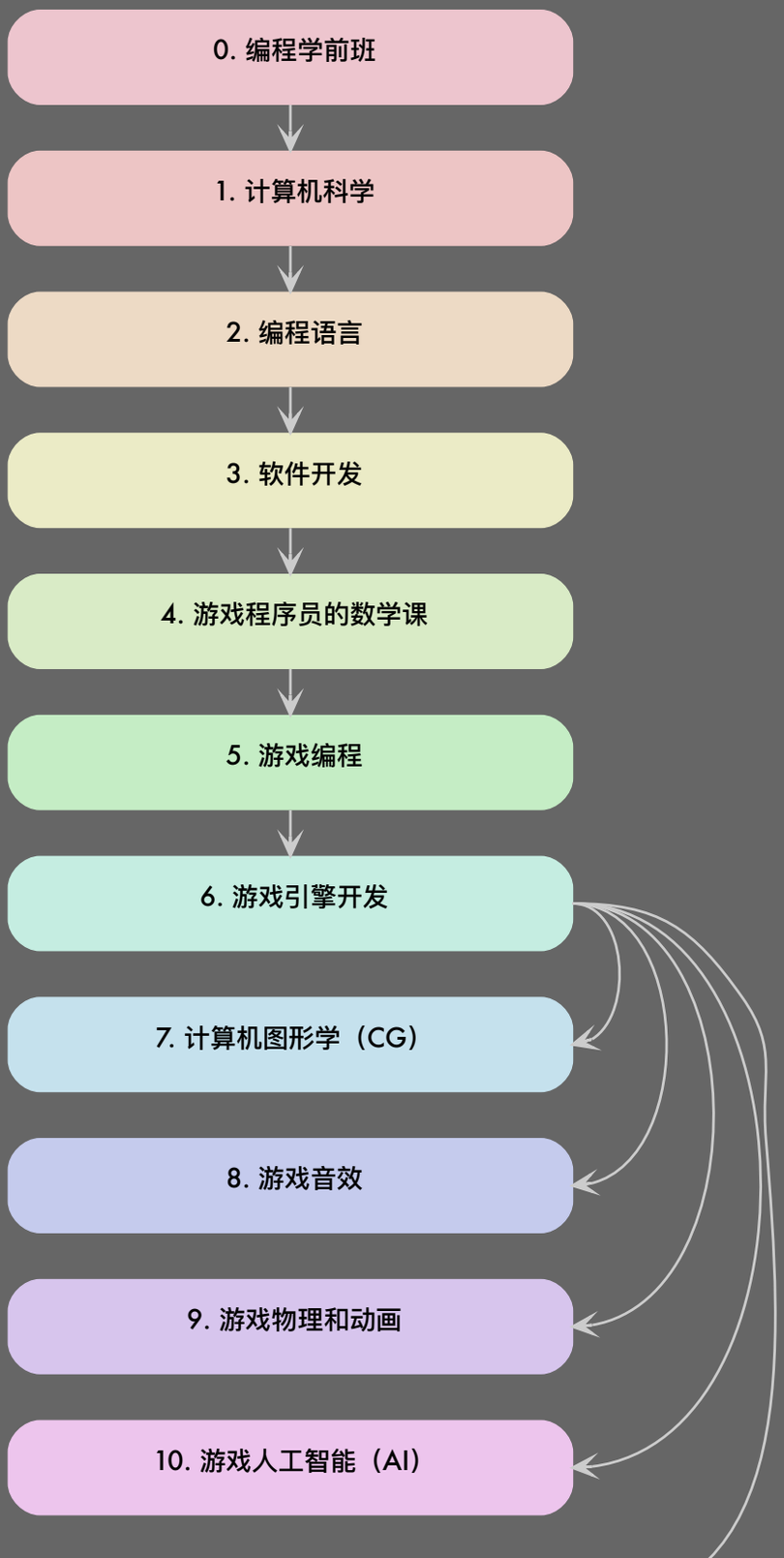
游戏程序员的学习之路

Milo Yip

2017/8/7

https://github.com/miloyip/game-programmer



11. 多人游戏编程

Legends

推荐路线

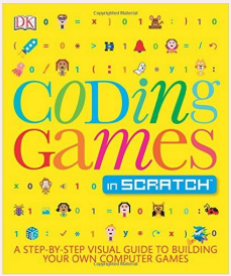
可选路线

0. 编程学前班

从5岁开始

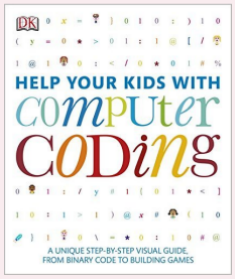
从8岁开始

动手玩转ScratchJr编程 (2016)



Coding Games in Scratch (2015)

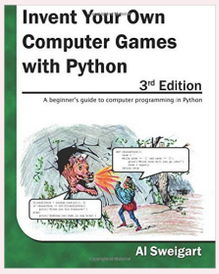
Scratch超人漫游记 (2017)



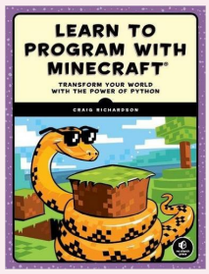
Help Your Kids with Computer Coding (2015)

动手玩转Scratch2.0编程 (2015)

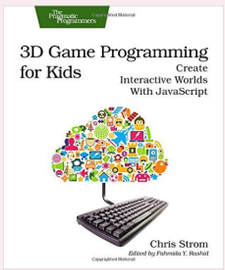
中级孩童游戏编程



Invent Your Own Computer Games with Python 3rd Ed (2015)

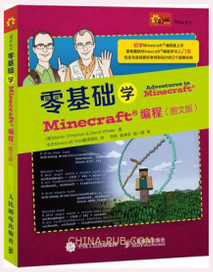


Learn to Program with Minecraft (2015)



3D Game Programming for Kids (2013)

Making Games with Python & Pygame (2012)



零基础学Minecraft编程 (2015)

1. 计算机科学

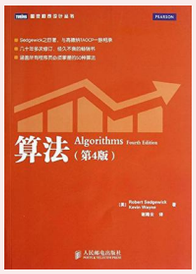
计算机基础

算法

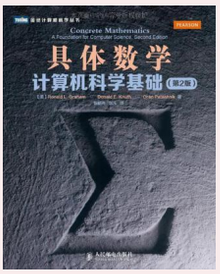
计算机数学

计算机程序的构造和解释 (2004)

深入理解计算机系统 (原书第3版) (2016)

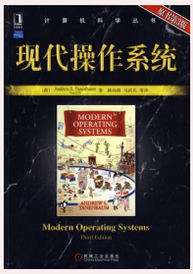


算法（第4版） (2012)

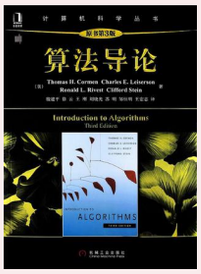


具体数学 (2013)

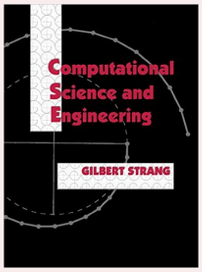
计算机体系结构 (2012)



现代操作系统（第3版） (2009)

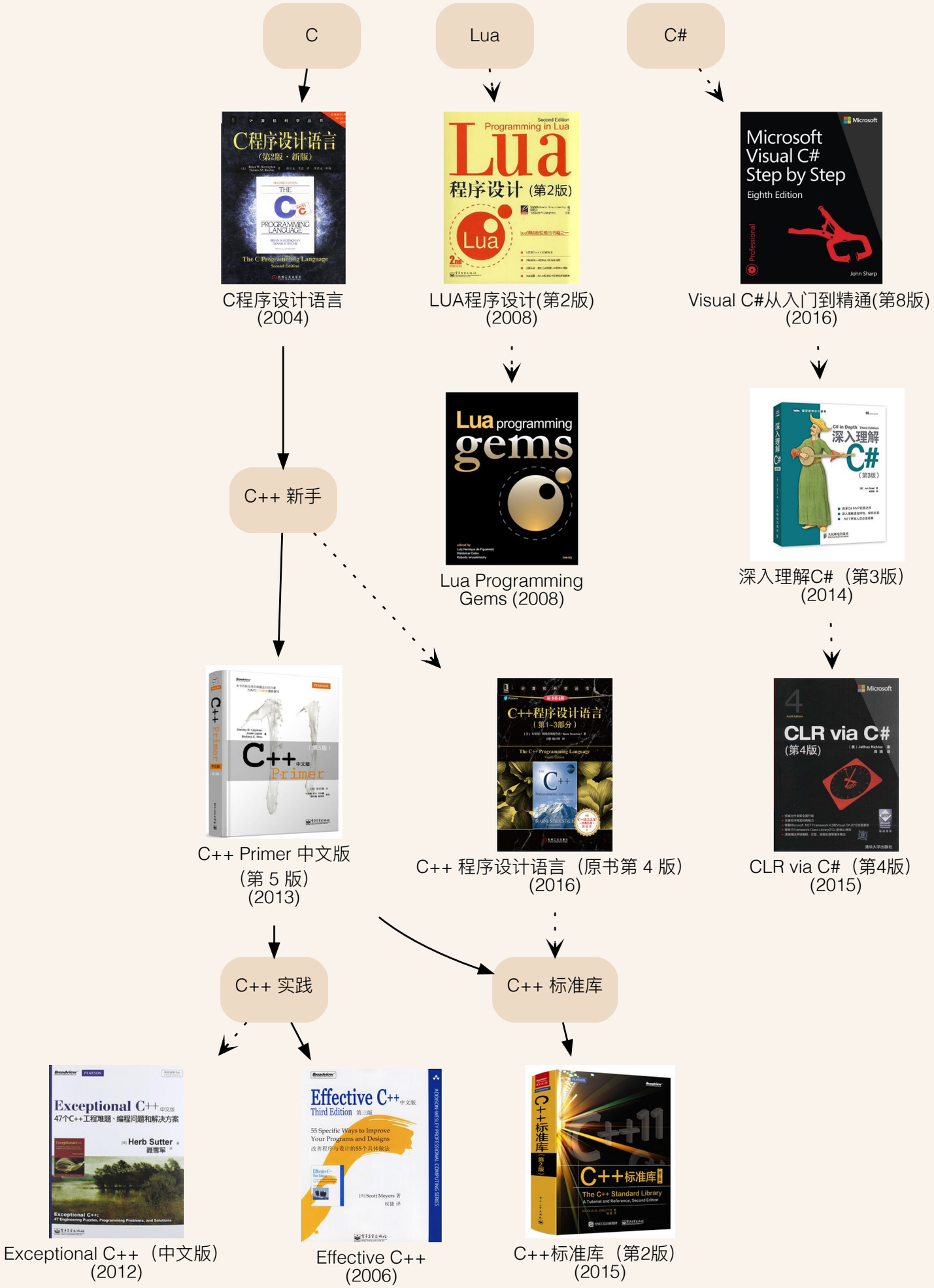


算法导论（原书第3版） (2012)

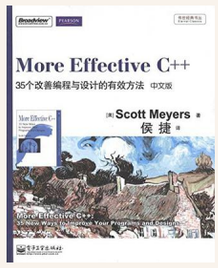


Computational Science and Engineering (2007)

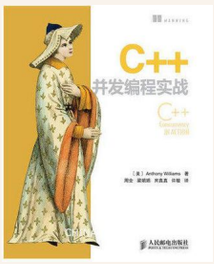
2. 编程语言


C
Lua
C#
C程序设计语言
(2004)
LUA程序设计(第2版)
(2008)
Visual C#从入门到精通(第8版)
(2016)
Lua Programming
Gems (2008)
深入理解C#（第3版）
(2014)
C++ 新手
C++ Primer 中文版
（第 5 版）
(2013)
C++ 程序设计语言（原书第 4 版）
(2016)
CLR via C#（第4版）
(2015)
C++ 实践
C++ 标准库
Exceptional C++（中文版）
(2012)
Effective C++
(2006)
C++标准库（第2版）
(2015)

More Exceptional C++
中文版
(2002)

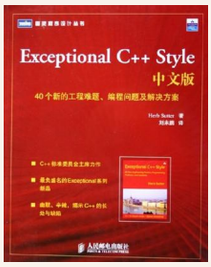


More Effective C++
(中文版)
(2011)

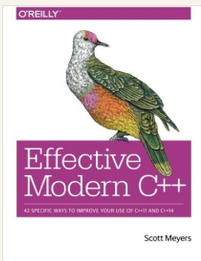


C++并发编程实战
(2015)

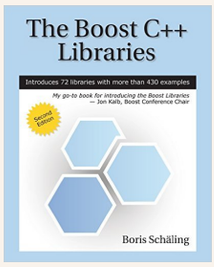
Effective STL中文版
(2013)



Exceptional C++ Style
中文版
(2006)

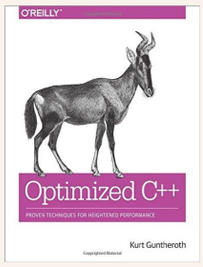


Effective Modern
C++ (2014)



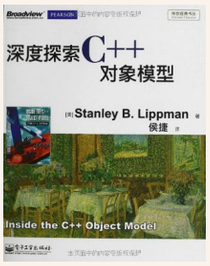
The Boost C++
Libraries 2nd Ed (2014)

C++编程规范
(2010)

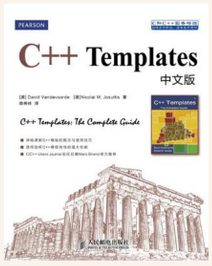


Optimized C++
(2016)

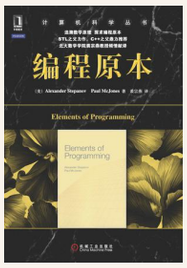
C++ 进阶



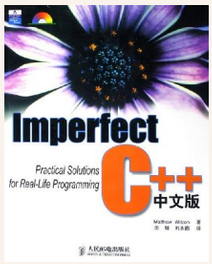
深度探索C++对象模型
(2012)



C++ Templates中文版
(2013)

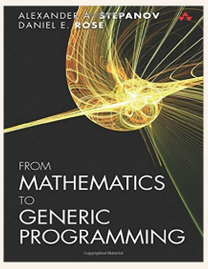


编程原本
(2012)



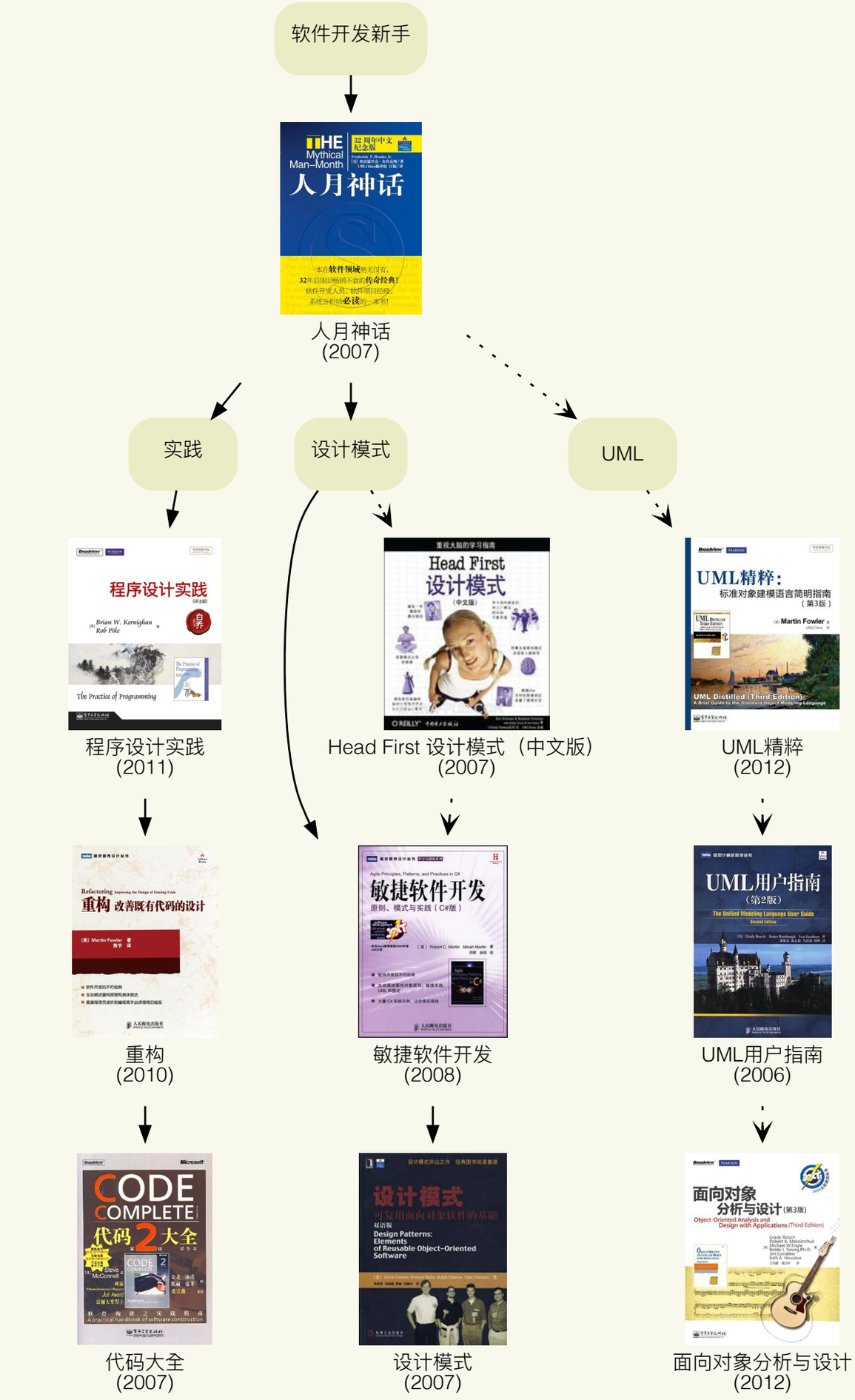
Imperfect C++中文版
(2006)

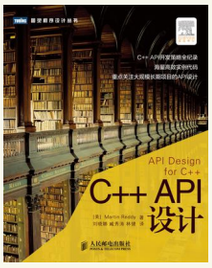
C++设计新思维
(2003)



From Mathematics
to Generic Programming
(2014)

3. 软件开发


软件开发新手
人月神话
(2007)
实践
设计模式
UML
程序设计实践
(2011)
Head First 设计模式（中文版）
(2007)
UML精粹
(2012)
重构
(2010)
敏捷软件开发
(2008)
UML用户指南
(2006)
代码大全
(2007)
设计模式
(2007)
面向对象分析与设计
(2012)



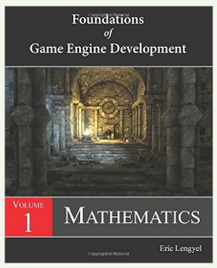
C++ API设计
(2013)

编码整洁之道
(2012)

修改代码的艺术
(2014)

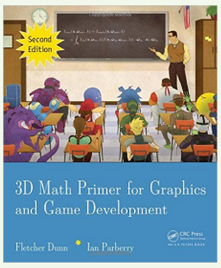
4. 游戏程序员的数学课

游戏编程数学初阶

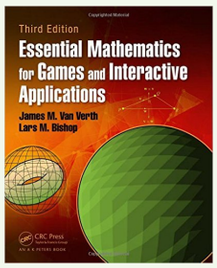


Foundations of Game Engine Development, Vol 1: Mathematics (2016)

3D游戏与计算机图形学中的数学方法(第3版)
(2016)

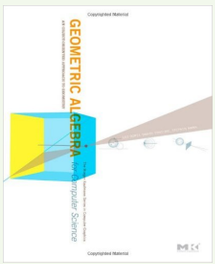


3D Math Primer for Graphics and Game Development 2nd Ed (2011)

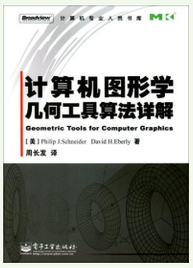


Essential Mathematics for Games and Interactive Applications 3rd Ed (2011)

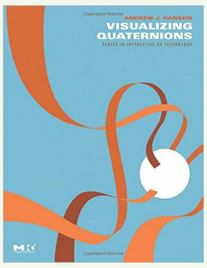
游戏编程数学进阶



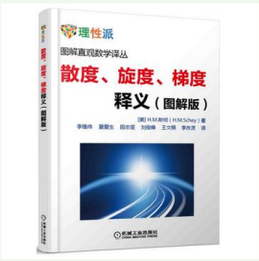
Geometric Algebra for Computer Science (2007)



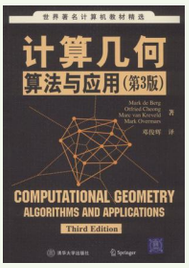
计算机图形学
几何工具算法详解
(2005)



Visualizing Quaternions (2006)

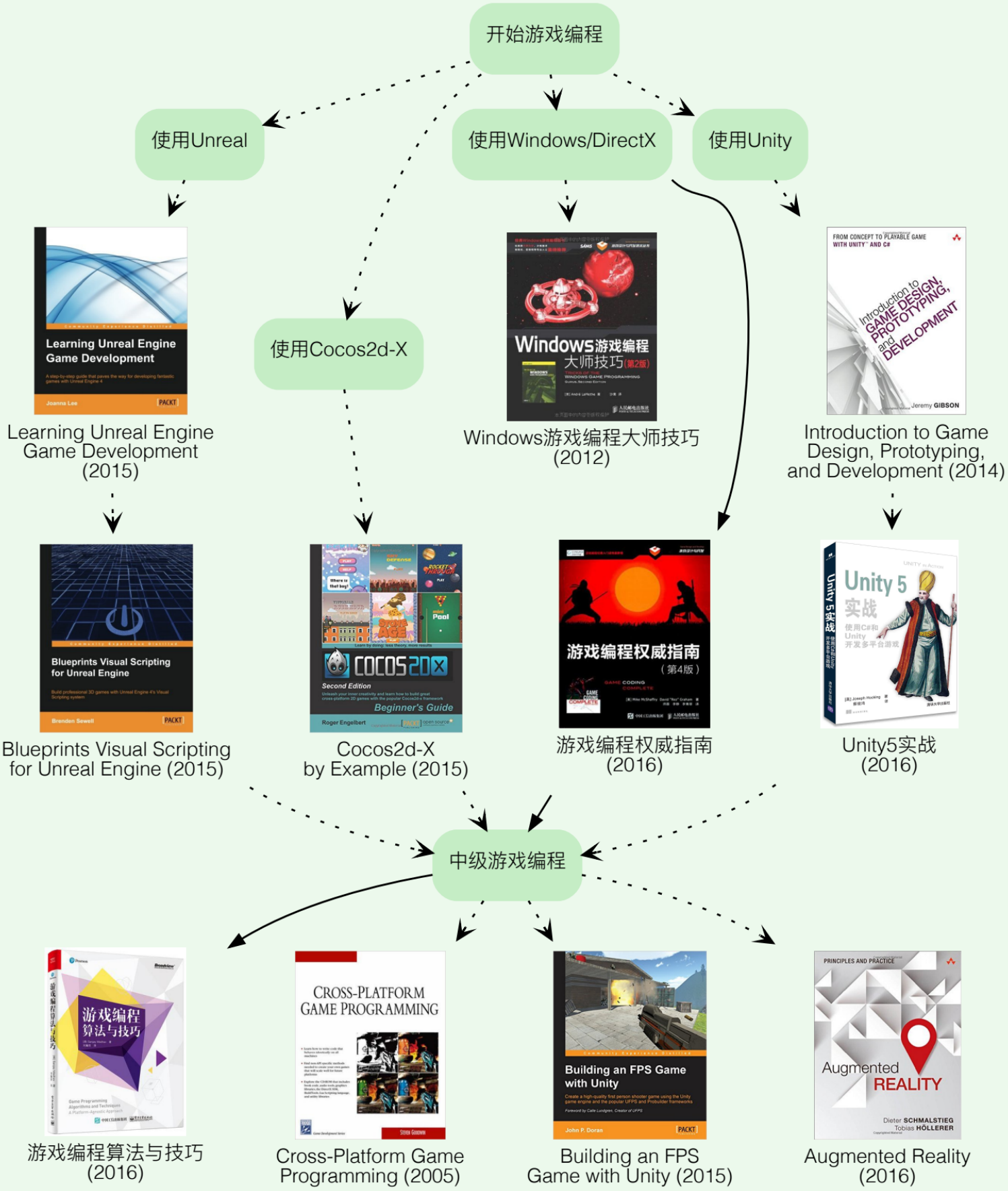


散度、旋度、梯度释义
(2015)

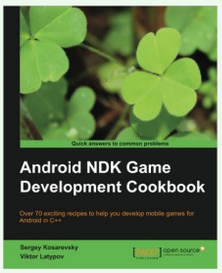


计算几何
(2009)

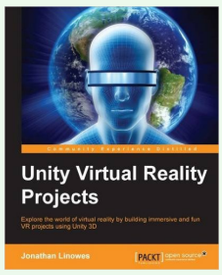
5. 游戏编程


开始游戏编程
使用Unreal
使用Windows/DirectX
使用Unity
使用Cocos2d-X
Learning Unreal Engine Game Development (2015)
Windows游戏编程大师技巧 (2012)
Introduction to Game Design, Prototyping, and Development (2014)
Blueprints Visual Scripting for Unreal Engine (2015)
Cocos2d-X by Example (2015)
游戏编程权威指南 (2016)
Unity5实战 (2016)
中级游戏编程
游戏编程算法与技巧 (2016)
Cross-Platform Game Programming (2005)
Building an FPS Game with Unity (2015)
Augmented Reality (2016)

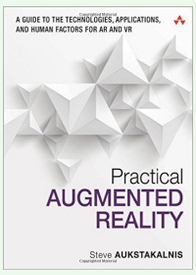
游戏编程模式
(2016)



Android NDK Game
Development Cookbook
(2013)



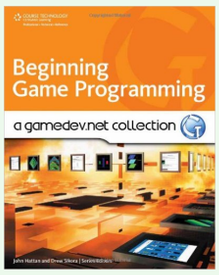
Unity Virtual
Reality Projects (2015)



Practical Augmented
Reality (2016)

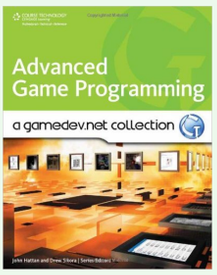
Game Programming
Golden Rules (2004)

游戏编程文选



Beginning Game
Programming (2009)

Best of Game
Programming
Gems (2008)



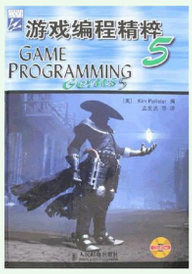
Advanced Game
Programming (2009)

游戏编程精粹 1
(2004)

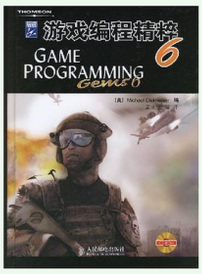
游戏编程精粹2
(2003)

游戏编程精粹3
(2003)

游戏编程精粹4
(2005)

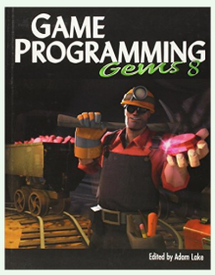


游戏编程精粹5
(2007)



游戏编程精粹6
(2007)

游戏编程精粹7
(2010)

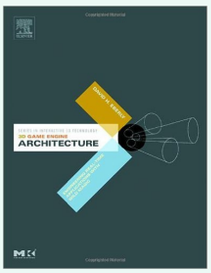


Game Programming
Gems (2010)

6. 游戏引擎开发

游戏引擎开发新手

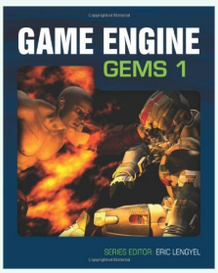
游戏引擎架构
(2014)



3D Game Engine
Architecture
(2004)

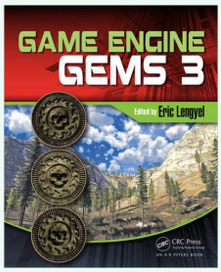
3D Game Engine
Design
2nd Ed (2006)

游戏引擎文选



Game Engine
Gems 1 (2010)

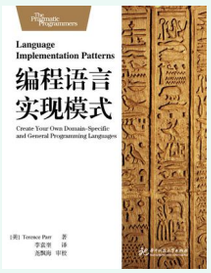
Game Engine
Gems 2 (2011)



Game Engine
Gems 3 (2016)

脚本引擎

游戏脚本高级编程
(2006)

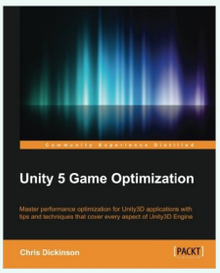


编程语言实现模式
(2012)

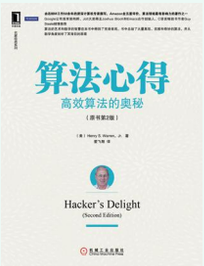
垃圾回收算法手册：
自动内存管理的艺术
(2016)

优化

Video Game
Optimization (2010)

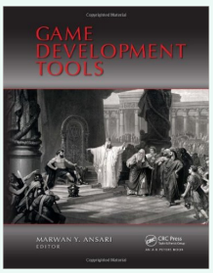


Unity 5 Game
Optimization (2015)

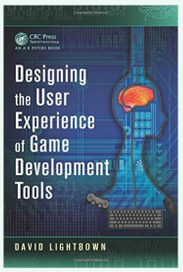


算法心得：高效算法的奥秘（原书第2版）
(2014)

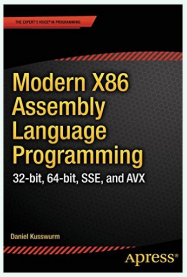
工具开发



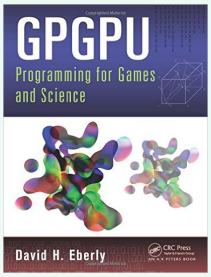
Game Development
Tools (2011)



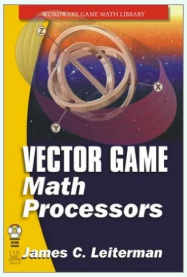
Designing the User
Experience of Game
Development Tools (2015)



Modern X86 Assembly Language Programming (2014)



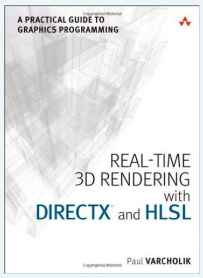
GPGPU Programming for Games and Science (2014)



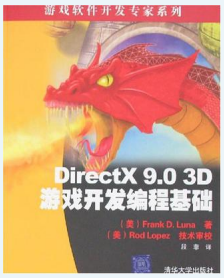
Vector Games Math Processors (2002)

7. 计算机图形学（CG）

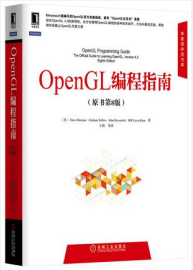
游戏图形学初级



Real-Time 3D Rendering with DirectX and HLSL (2014)

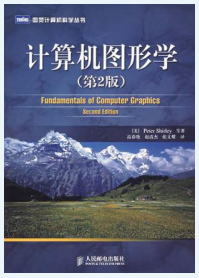


DirectX 9.0 3D游戏开发编程基础 (2007)



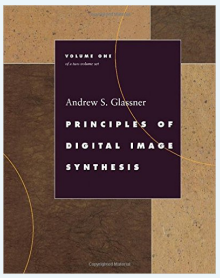
OpenGL编程指南(原书第8版) (2014)

图形学理论初级



计算机图形学 (2007)

计算机图形学原理及实践: C语言描述(原书第2版) (2004)



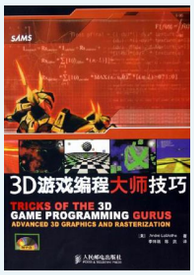
Principles of Digital Image Synthesis (PODIS) (1995)

数字图像处理 (2010)

图形学进阶

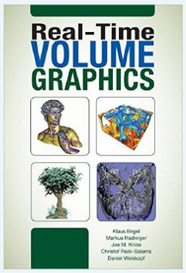
实时渲染

离线渲染



3D游戏编程大师技巧
(2005)

实时计算机图形学
(2004)



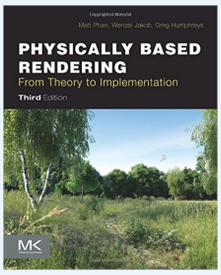
Real-Time Volume
Graphics (2006)

光线跟踪算法技术
(2011)

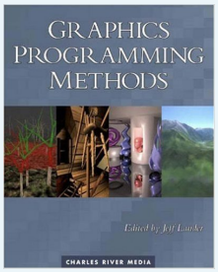
实时阴影技术
(2013)

Direct3D

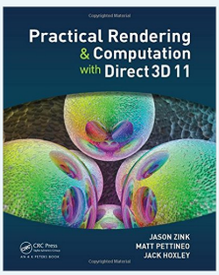
OpenGL



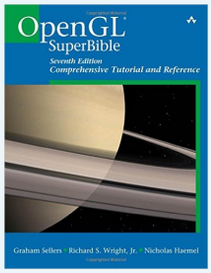
Physically Based
Rendering (PBRT)
3rd Ed (2016)



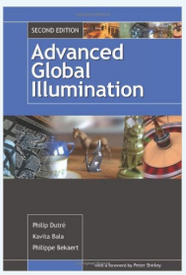
Graphics Programming
Methods (2003)



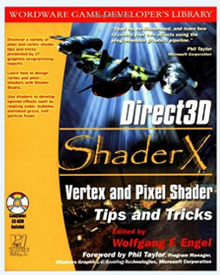
Practical Rendering
and Computation
with Direct3D 11 (2011)



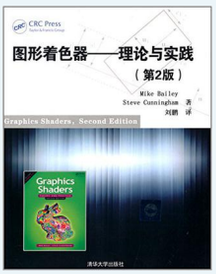
OpenGL Super Bible
7th Ed (2015)



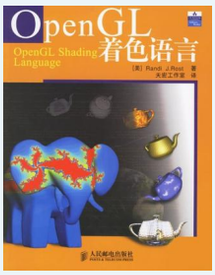
Advanced
Global Illumination
2nd Ed (2006)



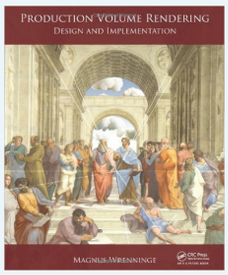
ShaderX (1996)



图形着色器
(2013)

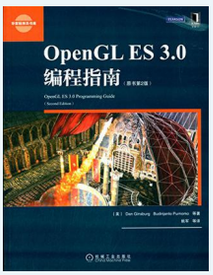


OpenGL着色语言
(2006)



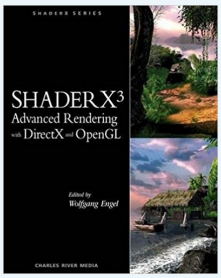
Production Volume
Rendering (2012)

ShaderX2 (2003)



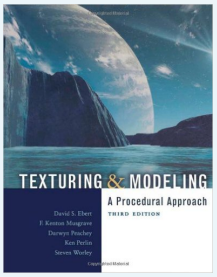
OpenGL ES 3.0编程指南
(2015)

图形学技术

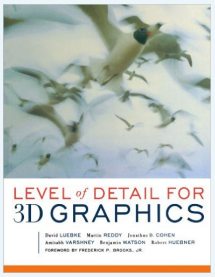


ShaderX3 (2004)

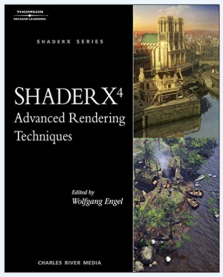
OpenGL Insights (2012)



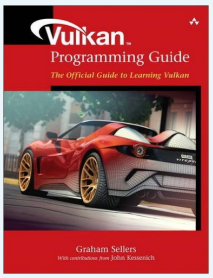
Texturing and Modeling (2002)



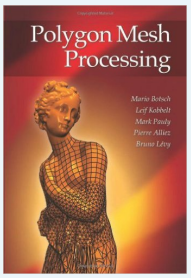
Level of Detail for 3D Graphics (2002)



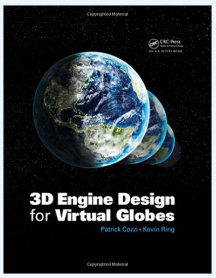
ShaderX4 (2006)



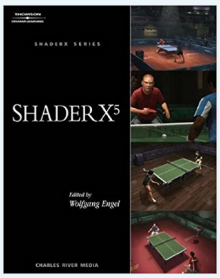
Vulkan Programming Guide (2016)



Polygon Mesh Processing (2010)

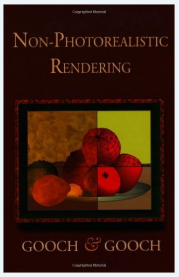


3D Engine Design for Virtual Globes (2011)

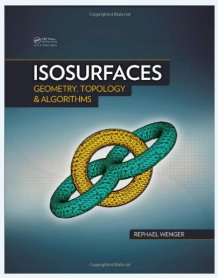


ShaderX5 (2006)

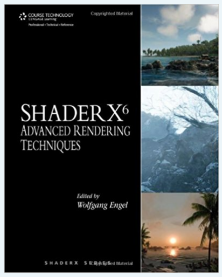
图形学文选



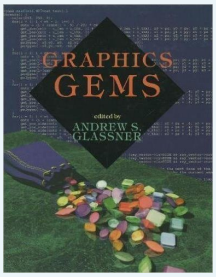
Non-Photorealistic Rendering (2001)



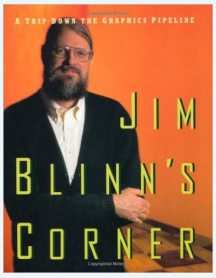
Isosurfaces (2013)



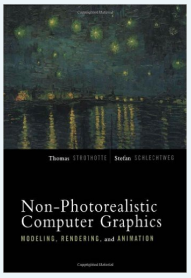
ShaderX6 (2008)



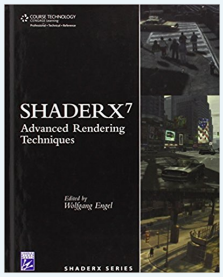
Graphics Gems (1990)



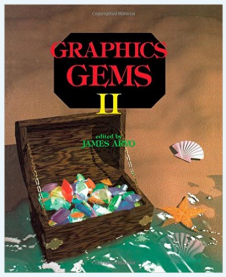
Jim Blinn's Corner: A Trip Down the Graphics Pipeline (1997)



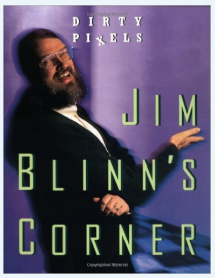
Non-Photorealistic Computer Graphics (2002)



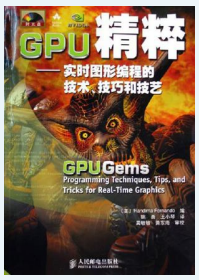
ShaderX7 (2009)



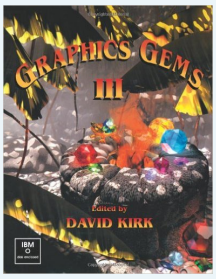
Graphics Gems II (1991)



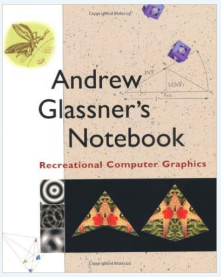
Jim Blinn's Corner: Dirty Pixels (1998)



GPU精粹 (2006)

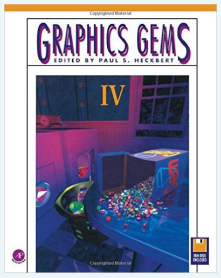


Graphics Gems III (1994)

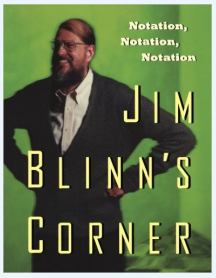


Andrew Glassner's Notebook (1999)

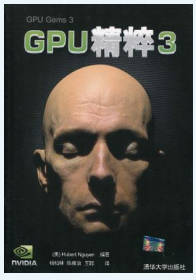
GPU精粹2 (2007)



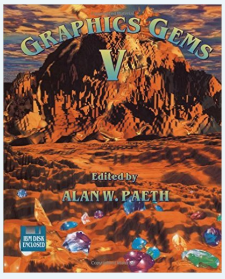
Graphics Gems IV (1994)



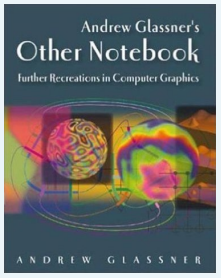
Jim Blinn's Corner: Notation, Notation, Notation (2002)



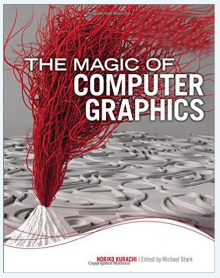
GPU精粹3 (2010)



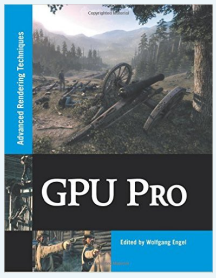
Graphics Gems V (1995)



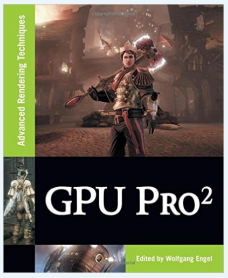
Andrew Glassner's Other Notebook (2002)



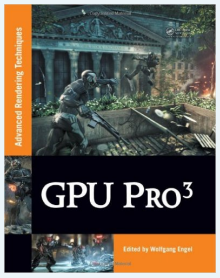
The Magic of Computer Graphics (2011)



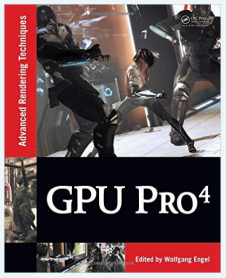
GPU Pro (2010)



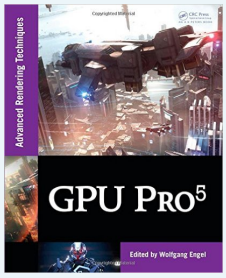
GPU Pro 2 (2011)



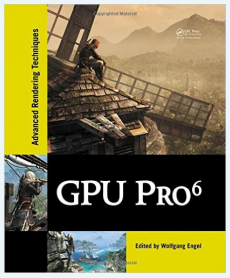
GPU Pro 3 (2012)



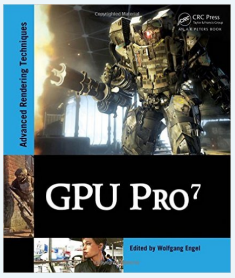
GPU Pro 4 (2013)



GPU Pro 5 (2014)



GPU Pro 6 (2015)

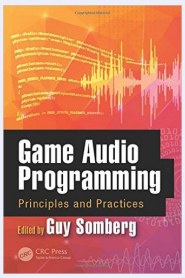


GPU Pro 7 (2016)

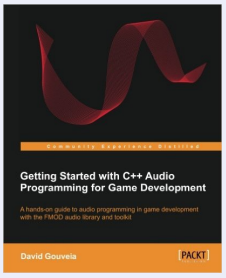
GPU Zen (2017)

8. 游戏音效

游戏音频编程



Game Audio
Programming (2016)

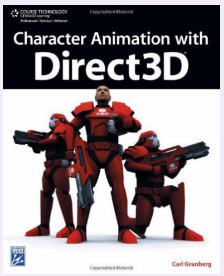


Getting Started
with C++ Audio Programming
for Game Development (2013)

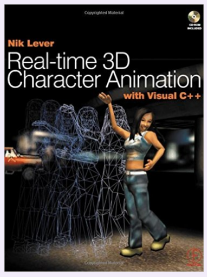
9. 游戏物理和动画

游戏动画初阶

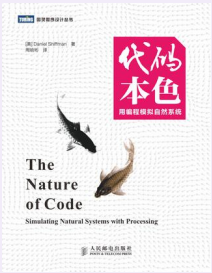
游戏物理初阶



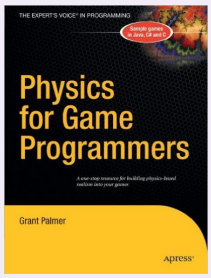
Character Animation
with Direct3D (2011)



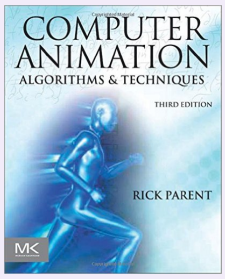
Real-time 3D
Character Animation
with Visual C++ (2001)



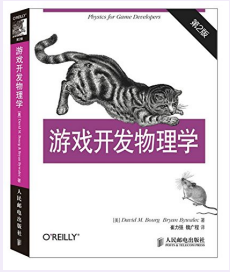
代码本色：用编程模拟自然系统
(2014)



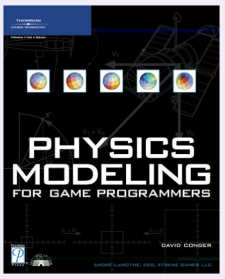
Physics for Game
Programmers (2003)



Computer Animation
3rd Ed (2012)



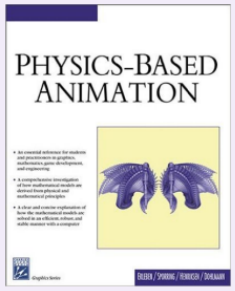
游戏开发物理学 第2版
(2015)



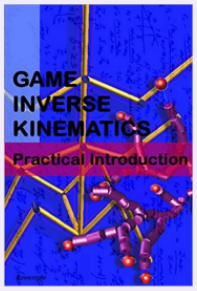
Physics Modeling
for Game Programmers (2004)

游戏动画进阶

游戏物理进阶

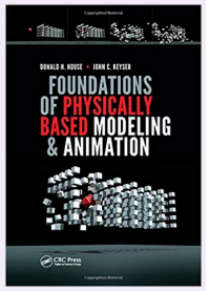


Physics Based Animation (2005)

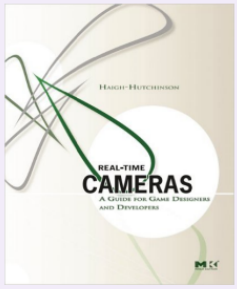


Game Inverse Kinematics (2013)

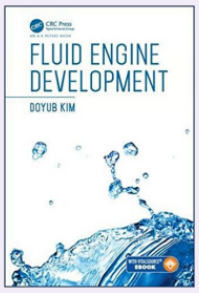
流体动画/模拟



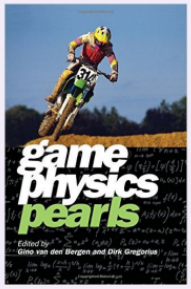
Foundations of Physically Based Modeling and Animation (2017)



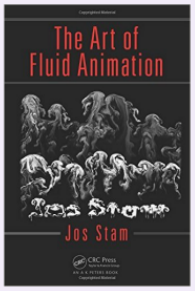
Real-Time Cameras (2009)



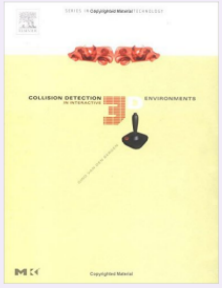
Fluid Engine Development (2016)



Game Physics Pearls (2010)

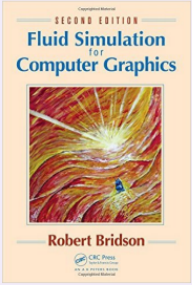


The Art of Fluid Animation (2015)



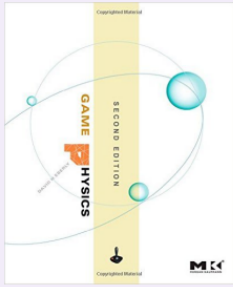
Collision Detection in Interactive 3D Environments (2003)

游戏物理引擎开发 (2013)



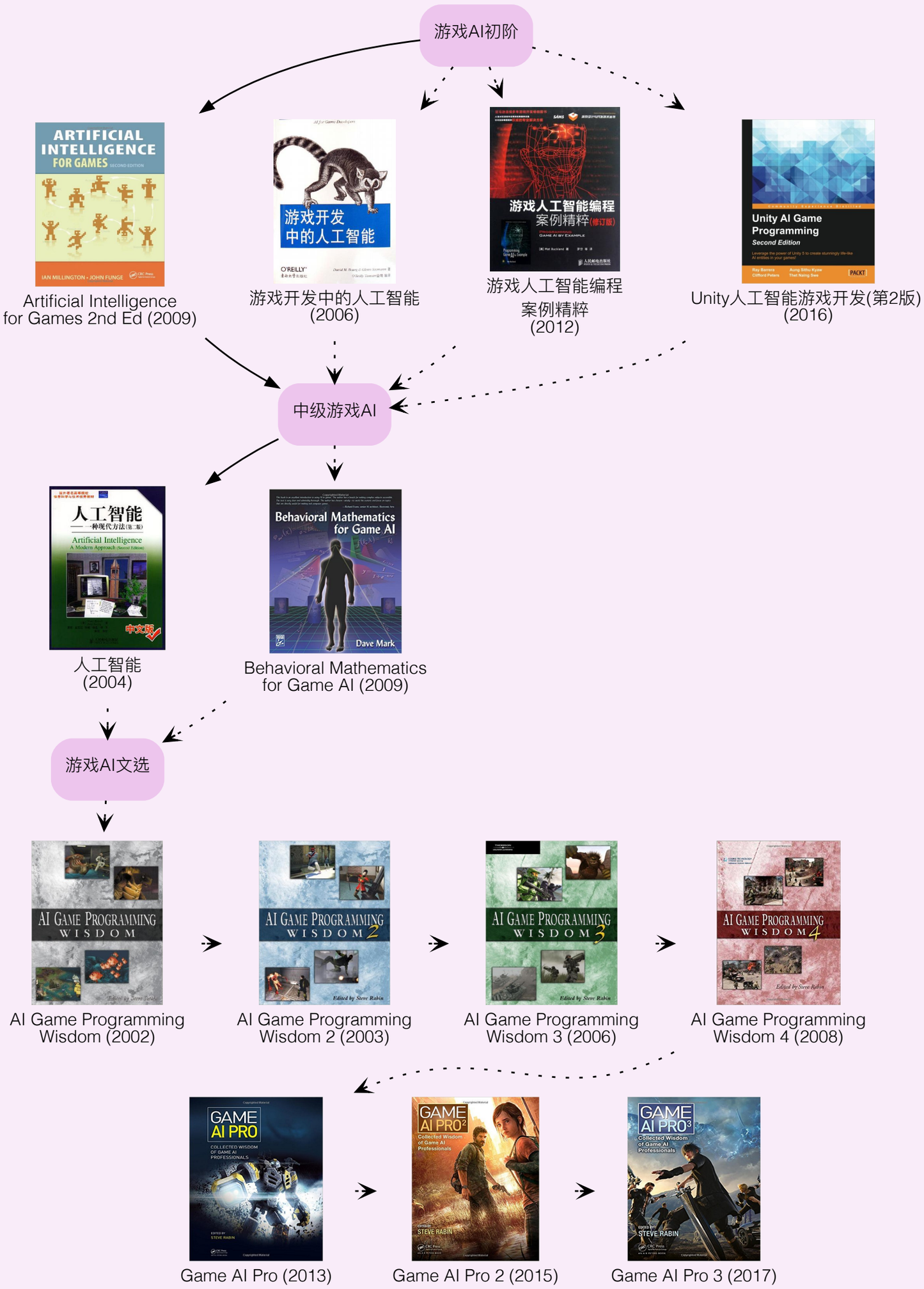
Fluid Simulation for Computer Graphics 2nd Ed (2015)

实时碰撞检测算法技术 (2010)



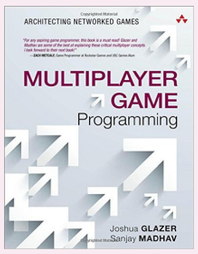
Game Physics 2nd Ed (2010)

10. 游戏人工智能（AI）


游戏AI初阶
Artificial Intelligence for Games 2nd Ed (2009)
游戏开发中的人工智能 (2006)
游戏人工智能编程案例精粹 (2012)
Unity人工智能游戏开发(第2版) (2016)
中级游戏AI
人工智能 (2004)
Behavioral Mathematics for Game AI (2009)
游戏AI文选
AI Game Programming Wisdom (2002)
AI Game Programming Wisdom 2 (2003)
AI Game Programming Wisdom 3 (2006)
AI Game Programming Wisdom 4 (2008)
Game AI Pro (2013)
Game AI Pro 2 (2015)
Game AI Pro 3 (2017)

11. 多人游戏编程

多人游戏编程初阶



Multiplayer Game Programming (2015)

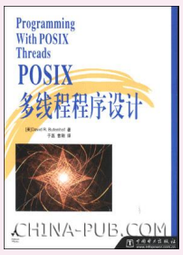
多人游戏编程文选

服务器编程

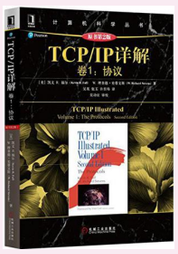
网络协议

网络编程

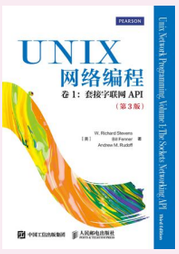
大型多人在线游戏开发 (2006)



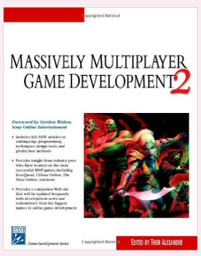
POSIX多线程程序设计 (2003)



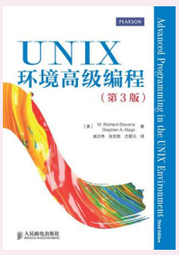
TCP/IP详解 卷1：协议 (2016)



UNIX网络编程 卷1：套接字联网API（第3版） (2014)

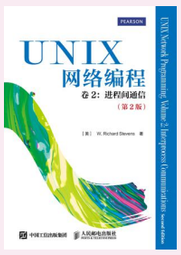


Massively Multiplayer Game Development 2 (2005)

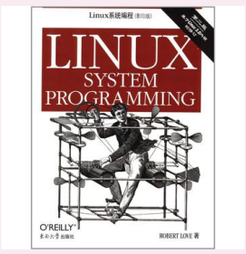


UNIX环境高级编程（第3版） (2014)

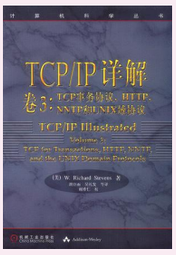
TCP/IP详解 卷2：实现 (2004)



UNIX网络编程 卷2：进程间通信（第2版） (2015)



Linux 系统编程（第二版） (2014)



TCP/IP详解 卷3：TCP事务协议、HTTP、NNTP和UNIX域协议 (2000)

深入理解 LINUX网络技术内幕 (2009)

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