

with Unity and game development easily. - Parents looking for a book that introduces their children to game programming painlessly. - Teachers looking for a complete and clear resource on programming through the creation of games. - Aspiring indie game developers. How this book is different This is the only book that you need to get started with Unity fast and to enjoy the journey without the frustration. This book includes six chapters that painlessly guide you through the necessary skills to master Unity's interface, use its core features, and create and navigate through realistic 2D and 3D environments. It assumes no prior knowledge on your part and ensures that you have all the information and explanations that you need every step of the way. What this book offers This book includes all the features that you need to get started with Unity and game development: Learn without the headaches: This book assumes that you can't be expected to learn everything at once; this is why you will build all your skills incrementally. In addition, if you are more of a visual learner, you will gain access to a FREE video training that covers all the topics and features introduced in the book so that you can see how it is done. Make your dream of creating your own games come true: This book ensures that you stay motivated by giving you the right amount of information and challenge in each chapter; we all know that it's hard to keep motivated when learning a new skill, so this book always contextualizes the knowledge with an example (so that you feel it's relevant), and also makes sure that you get to challenge yourself, if you need to, with optional challenges present at the end of each chapter. Progress and feel confident in your skills: You will have the opportunity to learn and to use Unity at your own pace and to become comfortable with its interface. This is because every single new concept introduced will be explained in great detail so that you never feel lost. All the concepts are introduced progressively so that you don't feel overwhelmed. Create your own games and feel awesome: With this book, you will build your own 2D and 3D environments and you will spend more time creating than reading, to ensure that you can apply the concepts covered in each section. All chapters include step-by-step instructions with examples that you can use straight-away. If you want to get started with Unity today, then buy this book now.

Embrace the mobile gaming revolution by creating popular iOS games with Swift 4.2 Key Features Learn to create games for iPhone and iPad with the latest Swift Programming language Understand the fundamental concepts of game development like game physics, camera action, sprites, controls, among others Build Augmented reality games using ARKit for true performance Book Description Swift is the perfect choice for game development. Developers are intrigued by Swift and want to make use of new features to develop their best games yet. Packed with best practices and easy-to-use examples, this book leads you step by step through the development of your first Swift game. The book starts by introducing Swift's best features - including its new ones for game development. Using SpriteKit, you will learn how to animate sprites and textures. Along the way, you will master physics, animations, and collision effects and how to build the UI aspects of a game. You will then work on creating a 3D game using the SceneKit framework. Further, we will look at how to add monetization and integrate Game Center. With iOS 12, we see the introduction of ARKit 2.0. This new version allows us to integrate shared experiences such as multiplayer augmented reality and persistent AR that is tied to a specific location so that the same information can be replicated on all connected devices. In the next section, we will dive into creating Augmented Reality games using SpriteKit and SceneKit. Then, finally, we will see how to create a Multipeer AR project to connect two devices, and send and receive data back and forth between those devices in real time. By the end of this book, you will be able to create your own iOS games using Swift and publish them on the iOS App Store. What you will learn Deliver powerful graphics, physics, and sound in your game by using SpriteKit and SceneKit Set up a scene using the new capabilities of the scene editor and custom classes Maximize gameplay with little-known tips and strategies for fun, repeatable action Make use of animations, graphics, and particles to polish your game Understand the current mobile monetization landscape Integrate your game with Game Center Develop 2D and 3D Augmented Reality games using Apple's new ARKit framework Publish your game to the App Store Who this book is for If you wish to create and publish iOS games using Swift, then this book is for you. No prior game development or experience with Apple ecosystem is needed.

In just 24 sessions of one hour or less, this guide will help you create great 2D and 3D games for any platform with the 100% free Godot 3.0 game engine. Its straightforward, step-by-step approach guides you from basic scenes, graphics, and game flow through advanced shaders, environments, particle rendering, and networked games. Godot's co-creator and main contributorwalk you through building three complete games, offering advanced techniques you won't find anywhere else. Every lesson builds on what you've already learned, giving you a rock-solid foundation for real-world success. Step-by-step instructions carefully walk you through the most common Godot engine programming tasks and techniques Practical, hands-on examples show you how to apply what you learn Quizzes and exercises help you test your knowledge and stretch your skills Notes and tips point out shortcuts, solutions, and problems to avoid Learn how to... · Install Godot, create projects, and use the visual editor · Master the scene system, and organize games with Scene Trees · Create 2D graphics, 3D graphics, and animations · Use basic and advanced scripting to perform many game tasks · Process player input from any source · Control game flow, configurations, and resources · Maximize realism with Godot's physics and particle systems · Make the most of 3D shaders, materials, lighting, and shadows · Control effects and post-processing · Build richer, more sophisticated game universes with viewports · Develop networked games, from concepts to communication and input · Export games to the devices you've targeted · Integrate native code, third-party APIs, and engine extensions (bonus chapter)

No-Code Video Game Development Using Unity and Playmaker

Mastering Godot

Development Experts Share Their Stories

Beginning Game Development with Godot

Sams Teach Yourself Unity Game Development in 24 Hours

Unreal Engine 4 Game Development in 24 Hours, Sams Teach Yourself

The Official Guide to Godot 3.0

Enter the world of video game development in this collection of discussions with noteworthy game creators ranging from solo hobbyists to major triple-A veterans. Todd Mitchell--an industry writer, indie developer, and host of the popular development podcast, GameDev Breakdown--speaks to experts about their projects, their experiences, and how they broke into the game industry to do some of the coolest jobs in history. Interviewees include: Michael Hicks of MichaelArts, David Fox of Electric Eggplant (formerly of LucasArts, Rocket Science Games, and more), Paul Nicholas of Liquidream, Richard Rouse III of Paranoid Productions (formerly of Surreal Software, Midway, Microsoft, and more), Ryan Engle of Golf Scope, Jordan Mychal Lemos formerly of Ubisoft, Sucker Punch Productions, Hardsuit Labs, and more, Say Mistage and Michael Silverman of Silverware Games, Joshua Davidson and Ash Lyons of Gearbox Software, Rob Hewson of Huey Games (formerly of TT Games, Dark Energy Digital, and Blade Interactive), and Thomas Kildren of Fletcher Studios Games discussed include: Pillar, The Path of Motus, Maniac Mansion, Zak McKracken and the Alien Mindbenders, Thimbleweed Park, The Suffering (series), The Church in the Darkness, Topgolf with Pro Putt, Assassin's Creed Odyssey, MatchyGotchy Z, Saints Row (series), Borderlands (series), Battleborn, Lego games, Booper, Get Home! and more.

Follow a walkthrough of the Unity Engine and learn important 2D-centric lessons in scripting, working with image assets, animations, cameras, collision detection, and state management. In addition to the fundamentals, you'll learn best practices, helpful game-architectural patterns, and how to customize Unity to suit your needs, all in the context of building a working 2D game. While many books focus on 3D game creation with Unity, the easiest market for an independent developer to thrive in is 2D games. 2D games are generally cheaper to produce, more feasible for small teams, and more likely to be completed. If you live and breathe games and want to create them then 2D games are a great place to start. By focusing exclusively on 2D games and Unity's ever-expanding 2D workflow, this book gives aspiring independent game developers the tools they need to thrive. Various real-world examples of independent games are used to teach fundamental concepts of developing 2D games in Unity, using the very latest tools in Unity's updated 2D workflow. New all-digital channels for distribution, such as Nintendo eShop, Xbox Live Marketplace, the Playstation Store, the App Store, Google Play, itch.io, Steam, and GOG.com have made it easier than ever to discover, buy, and sell games. The golden age of independent gaming is upon us, and there has never been a better time to get creative, roll up your sleeves, and build that game you've always dreamed about. Developing 2D Games with Unity can show you the way. What You'll Learn Delve deeply into useful 2D topics, such as sprites, tile slicing, and the brand new Tilemap feature. Build a working 2D RPG-style game as you learn.Construct a flexible and extensible game architecture using Unity-specific tools like Scriptable Objects, Cinemachine, and Prefabs.Take advantage of the streamlined 2D workflow provided by the Unity environment. Deploy games to desktop Who This Book Is For Hobbyists with some knowledge of programming, as well as seasoned programmers interested in learning to make games independent of a major studio.

Description: This tutorial-based book allows readers to create a first-person game from start to finish using industry-standard (and free to student) tools of Maya, Substance Painter, and Unreal Engine. The first half of the book lays out the basics of using Maya and Substance Painter to create game-ready assets. This includes polygonal modeling, UV layout, and custom texture painting. Then, the book covers rigging and animation solutions to create assets to be placed in the game including animated first-person assets and motion-captured NPC animations. Finally, readers can put it all together and build interactivity that allows the player to create a finished game using the assets built and animated earlier in the book. • Written by industry professionals with real-world experience in building assets and games. • Build a complete game from start to finish. • Learn what the pros use: construct all assets using the tools used at industries across the world. • All software used are free to students. • When complete, students will have a playable version of an FPS game. Jing Tian Li is a graduate of China's Central Academy of Fine Arts and New York's School of Visual Arts, where he earned an MFA in Computer Art. He currently is an Assistant Professor of 3D Animation & Game Design at the University of the Incarnate Word in San Antonio, Texas. Cassandra Arevalo is an instructor of 3D Animation & Game Design at the University of the Incarnate Word in San Antonio, Texas. She previously worked as an animator at Immersed Games. Matt Tovar is an industry veteran animator. He has worked at Naughty Dog, Infinity Ward, and Sony Interactive on such games as The Last of Us, Call of Duty: Modern Warfare, and most recently Marvel's Avengers with Crystal Dynamics. He is an Assistant Professor of 3D Animation at the University of the Incarnate Word in San Antonio, Texas.

Rust is an exciting new programming language combining the power of C with memory safety, fearless concurrency, and productivity boosters - and what better way to learn than by making games. Each chapter in this book presents hands-on, practical projects ranging from "Hello, World" to building a full dungeon crawler game. With this book, you'll learn game development skills applicable to other engines, including Unity and Unreal. Rust is an exciting programming language combining the power of C with memory safety, fearless concurrency, and productivity boosters. With Rust, you have a shiny new playground where your game ideas can flourish. Each chapter in this book presents hands-on, practical projects that take you on a journey from "Hello, World" to building a full dungeon crawler game. Start by setting up Rust and getting comfortable with your development environment. Learn the language basics with practical examples as you make your own version of Flappy Bird. Discover what it takes to randomly generate dungeons and populate them with monsters as you build a complete dungeon crawl game. Run game systems concurrently for high-performance and fast game-play, while retaining the ability to debug your program. Unleash your creativity with magical items, tougher monsters, and intricate dungeon design. Add layered graphics and polish your game with style. What You Need: A computer running Windows 10, Linux, or Mac OS X. A text editor, such as Visual Studio Code. A video card and drivers capable of running OpenGL 3.2.

Game Programming Patterns

Beginning Mobile Phone Game Programming

Learn about game and virtual reality development by creating five engaging projects, 2nd Edition

Developing 2D Games with Unity

GD Script

Introduction to 3D Game Programming with DirectX 12

Models, Textures, Animation, & Blueprint

Get started with Godot and game programming fast without the headaches Godot is a great software to create video games; however, it includes so many options and features that getting started can feel overwhelming. Without my book, most people spend too long trying to learn how to use Godot and GDScript the hard way. This book is the only one that will get you to learn GDScript fast without wasting so much time. This book is the second book in the series "Godot from Zero to Proficiency" where you will learn to code fast and be able to create your own video games with Godot in no time. What you will learn After completing this book, you will be able to: - Code in GDScript. - Understand and apply GDScript concepts. - Create a 3D adventure game with the main character, a timer, and a mini-map. - Display and update a user interface with text and images. - Create and use variables and methods for your game. - Load new scenes from the code, based on events in your games. Who this book is for This book is for: - Hobbyists who need a book that gets them started with GDScript and game development easily. - Parents looking for a book that introduces their children to game programming painlessly. - Teachers looking for a complete and clear resource on programming through the creation of games. - Aspiring indie game developers. How this book is different This is the only book that you need to get started with Godot fast and to enjoy the journey without frustration. This book includes six chapters that painlessly guide you through the necessary skills to master GDScript, use Godot's core features, and create key game mechanics through GDScript (collisions, user interface, etc). It assumes no prior knowledge on your part and ensures that you have all the information and explanations that you need every step of the way. Content of the book - Chapter 1 introduces some core programming and GDScript principles. - Chapter 2 helps you to code your first script in GDScript. - Chapter 3 gets you to improve your scripting skills, enhance your game and add more interaction with a scoring system, collision detection, and access to new levels. - Chapter 4 shows you how to create and update the user interface of your game with text and images. - Chapter 5 shows you how to enhance your game with a splash-screen, a simple inventory system, and sound effects, as well as a mini-map. What this book offers - Learn without the headaches: This book assumes that you can't be expected to learn everything at once; this is why you will build all your skills incrementally. - Make your dream of creating your own games come true: This book ensures that you stay motivated by giving you the right amount of information and challenge in each chapter; we all know that it's hard to keep motivated when learning a new skill, so this book always contextualizes the knowledge with an example (so that you feel it's relevant), and also makes sure that you get to challenge yourself, if you need to, with optional challenges present at the end of each chapter. - Progress and feel confident in your skills: You will have the opportunity to learn and to use Godot at your own pace and to become comfortable with its interface. This is because every single new concept introduced will be explained in great detail so that you never feel lost. All the concepts are introduced progressively so that you don't feel overwhelmed. If you want to get started with Godot today, then buy this book now

In the past, not being able to program meant not being able to make video games. Now if you can draw a flow-chart you can use powerful State Machine technology to create your dream game! No-Code Video Game Development using Unity and Playmaker will teach you how to substitute flow-charts for code. As a complete course, it uses a project-based approach. The FPS project comes with over a hundred dollars worth of free #gamedev DLC: Unity Packages, Playmaker Templates, Character Models, Animations, Materials, and more! You'll also learn game design documentation and theory, Mecanim, Particle Systems, and UI. By the time you're done you'll have gained the skills needed to create your own dream game, all without writing any code!

Learn and use Python and PyGame to design and build cool arcade games. In Program Arcade Games: With Python and PyGame, Second Edition, Dr. Paul Vincent Craven teaches you how to create fun and simple quiz games; integrate and start using graphics; animate graphics; integrate and use game controllers; add sound and bit-mapped graphics; and build grid-based games. After reading and using this book, you'll be able to learn to program and build simple arcade game applications using one of today's most popular programming languages, Python. You can even deploy onto Steam and other Linux-based game systems as well as Android, one of today's most popular mobile and tablet platforms. You'll learn: How to create quiz games How to integrate and start using graphics How to animate graphics How to integrate and use game controllers How to add sound and bit-mapped graphics How to build grid-based games Audience<div>This book assumes no prior programming knowledge.

Are you a Unity developer looking to switch to the Godot engine quickly? If so, this no-nonsense book is your guide to mastering the most popular open-source game engine. Godot is a completely free game engine for creating high-quality 2D and 3D games that can be launched on multiple platforms. You'll see how to transition seamlessly from Unity to Godot, getting up and running quickly and effectively, using practical case studies. In addition to building functional worlds from meshes and physical interactions, you'll work with reusable assets, such as textures. The book then moves on to lighting and rendering 2D and 3D scenes with baked and real-time lighting. You'll also work with navigation and path-finding for NPCs, and see how to create save-game states with JSON. With Moving from Unity to Godot you'll be ready to create amazing 2D and 3D games that will supercharge your business. What You Will Learn Explore the similarities and differences between Unity and GodotMaximize the benefits from Unity and Godot Create believable game world and characters with GodotMaster the unique aspects of C# coding in Godot Who This Book is For Developers familiar with Unity who want to master another game engine, such as Godot.

A Programmer's Introduction to 3D Rendering

A Practical Approach to Real-Time Computer Graphics

Complete Instructions for Making Video Games

Creating Games with Unreal Engine, Substance Painter, & Maya

Build High-Performance AAA Games with UE 4, 2nd Edition

The Changing U.S. Auto Industry

Learn the fundamentals of Godot by diving headfirst into creating a 2D platformer from scratch. This book is a hands-on, practical guide to developing 2D games using the Godot Engine 3.2.3/3.3, with the help of GDScript. Author Maithili Dhule begins by explaining some basic tools and techniques used to make games, the factors that need to be considered while creating a game, and how to use Godot to create a game. She then walks you through downloading the engine and guides you as you explore key features of its interface. Next, you'll receive a concise introduction to the basics of GDScript, the main scripting language used in Godot. before moving on to essential topics such as Godot's node-scene architecture, the interaction of various physics bodies, the creation of game objects, and how to use Godot to create and animate your game character, design the game world, add enemies, and implement a coin-collection system. You'll also see how the user's gaming experience can be enhanced through the addition of parallax backgrounds, a title screen, music, and sound effects. Toward the end of the book, you'll learn how to export your game to different platforms, both desktop and mobile. Throughout the book, theoretical concepts are supplemented with concrete, ready-to-implement examples that you can try out. Upon finishing this book, you'll be able to make and publish your first 2D platform game. Beginning Game Development with Godot is for game development enthusiasts of all levels interested in creating their own games. What You Will Learn

development Master the fundamentals of programming in GDScript Use the Godot graphical interface to design and animate players, the game world, menus, and various games scenes Create your first 2D game in Godot and publish it to various platforms Who This Book Is For Aspiring game developers who may be new to game development, as well as experts expl The official book on the Rust programming language, written by the Rust development team at the Mozilla Foundation, fully updated for Rust 2018. The Rust Programming Language is the official book on Rust: an open source systems programming language that helps you write faster, more reliable software. Rust offers control over low-level details (such as memo hassle traditionally associated with low-level languages. The authors of The Rust Programming Language, members of the Rust Core Team, share their knowledge and experience to show you how to take full advantage of Rust's features--from installation to creating robust and scalable programs. You'll begin with basics like creating functions, choosing data types, such as: • Ownership and borrowing, lifetimes, and traits • Using Rust's memory safety guarantees to build fast, safe programs • Testing, error handling, and effective refactoring • Generics, smart pointers, multithreading, trait objects, and advanced pattern matching • Using Cargo, Rust's built-in package manager, to build, test, and document your code and manage compiler-led programming techniques You'll find plenty of code examples throughout the book, as well as three chapters dedicated to building complete projects to test your learning: a number guessing game, a Rust implementation of a command line tool, and a multithreaded server. New to this edition: An extended section on Rust macros, an expanded chapter on Complete book format tutorial for GD Script. GD Script is Godot game engine's main script. Are you creating a new game? Are you Godot game developer? Do you want to learn something interesting and new? If yes, GD Script book is for you. Godot game engine is a leading open-source game engine for 2D and 3D game creation. You will learn how to create games with lots of possibilities. You will learn how to create many different 2D, 3D and control objects with GD Script only, how to implement them inside the game scene and how to combine them into a good computer game. Book is an important tool for SLAVS MAKE GAMES courses students. After you bought GD Script book all SLAVS MAKE GAMES courses are with a Hailed as a "must-have textbook" (CHOICE, January 2010), the first edition of Game Engine Architecture provided readers with a complete guide to the theory and practice of game engine software development. Updating the content to match today's landscape of game engine architecture, this second edition continues to thoroughly cover the major components th Edition Information on new topics, including the latest variant of the C++ programming language, C++11, and the architecture of the eighth generation of gaming consoles, the Xbox One and PlayStation 4 New chapter on audio technology covering the fundamentals of the physics, mathematics, and technology that go into creating an AAA game audio engine Updated and optimization, localization, pseudovectors and Grassman algebra, dual quaternions, SIMD vector math, memory alignment, and anti-aliasing Insight into the making of Naughty Dog's latest hit, The Last of Us The book presents the theory underlying various subsystems that comprise a commercial game engine as well as the data structures, algorithms, and software focuses on the engine itself, including a host of low-level foundation systems, the rendering engine, the collision system, the physics simulation, character animation, and audio. An in-depth discussion on the "gameplay foundation layer" delves into the game's object model, world editor, event system, and scripting system. The text also touches on some aspects of g awareness-building tool and a jumping-off point for further learning, Game Engine Architecture, Second Edition gives readers a solid understanding of both the theory and common practices employed within each of the engineering disciplines covered. The book will help readers on their journey through this fascinating and multifaceted field.

3D Game Engine Design

Learn to Create and Publish Your First 2D Platform Game

Godot Engine Game Development in 24 Hours, Sams Teach Yourself

Computer Graphics from Scratch

Game Coding Complete

Game Engine Architecture, Third Edition

The Rust Programming Language (Covers Rust 2018)

Godot Engine Game Development in 24 Hours, Sams Teach YourselfThe Official Guide to Godot 3.0Sams Publishing

A project based guides to learn animation, advanced shaders, environments, particle rendering, and networked games with Godot 3.0 Key Features Learn the art of developing cross-platform games Leverage Godot ' s node and scene system to design robust, reusable game objects Integrate Blender easily and efficiently with Godot to create powerful 3D games Book Description Godot Engine Game Development Projects is an introduction to the Godot game engine and its new 3.0 version. Godot 3.0 brings a large number of new features and capabilities that make it a strong alternative to expensive commercial game engines. For beginners, Godot offers a friendly way to learn game development techniques, while for experienced developers it is a powerful, customizable tool that can bring your visions to life. This book consists of five projects that will help developers achieve a sound understanding of the engine when it comes to building games. Game development is complex and involves a wide spectrum of knowledge and skills. This book can help you build on your foundation level skills by showing you how to create a number of small-scale game projects. Along the way, you will learn how Godot works and discover important game development techniques that you can apply to your projects. Using a straightforward, step-by-step approach and practical examples, the book will take you from the absolute basics through to sophisticated game physics, animations, and other techniques. Upon completing the final project, you will have a strong foundation for future success with Godot 3.0. What you will learn Get started with the Godot game engine and editor Organize a game project Import graphical and audio assets Use Godot ' s node and scene system to design robust, reusable game objects Write code in GDScript to capture input and build complex behaviors Implement user interfaces to display information Create visual effects to spice up your game Learn techniques that you can apply to your own game projects Who this book is for Godot Engine Game Development Projects is for both new users and experienced developers, who want to learn to make games using a modern game engine. Some prior programming experience in C and C++ is recommended.

Computer Graphics from Scratch demystifies the algorithms used in modern graphics software and guides beginners through building photorealistic 3D renders. Computer graphics programming books are often math-heavy and intimidating for newcomers. Not this one. Computer Graphics from Scratch takes a simpler approach by keeping the math to a minimum and focusing on only one aspect of computer graphics, 3D rendering. You ' ll build two complete, fully functional renderers: a raytracer, which simulates rays of light as they bounce off objects, and a rasterizer, which converts 3D models into 2D pixels. As you progress you ' ll learn how to create realistic reflections and shadows, and how to render a scene from any point of view. Pseudocode examples throughout make it easy to write your renderers in any language, and links to live JavaScript demos of each algorithm invite you to explore further on your own. Learn how to: • Use perspective projection to draw 3D objects on a 2D plane • Simulate the way rays of light interact with surfaces • Add mirror-like reflections and cast shadows to objects • Render a scene from any camera position using clipping planes • Use flat, Gouraud, and Phong shading to mimic real surface lighting • Paint texture details onto basic shapes to create realistic-looking objects Whether you ' re an aspiring graphics engineer or a novice programmer curious about how graphics algorithms work, Gabriel Gambetta ' s simple, clear explanations will quickly put computer graphics concepts and rendering techniques within your reach. All you need is basic coding knowledge and high school math. Computer Graphics from Scratch will cover the rest.

You don ' t need to be a wizard to transform a game you like into a game you love. Imagine if you could give your favorite PC game a more informative heads-up display or instantly collect all that loot from your latest epic battle. Bring your knowledge of Windows-based development and memory management, and Game Hacking will teach you what you need to become a true game hacker. Learn the basics, like reverse engineering, assembly code analysis, programmatic memory manipulation, and code injection, and hone your new skills with hands-on example code and practice binaries. Level up as you learn how to: – Scan and modify memory with Cheat Engine – Explore program structure and execution flow with OllyDbg – Log processes and pinpoint useful data files with Process Monitor – Manipulate control flow through NOPing, hooking, and more – Locate and dissect common game memory structures You ' ll even discover the secrets behind common game bots, including: – Extrasensory perception hacks, such as wallhacks and heads-up displays – Responsive hacks, such as autohealers and combo bots – Bots with artificial intelligence, such as cave walkers and automatic looters Game hacking might seem like black magic, but it doesn ' t have to be. Once you understand how bots are made, you ' ll be better positioned to defend against them in your own games. Journey through the inner workings of PC games with Game Hacking, and leave with a deeper understanding of both game design and computer security.

Artificial Intelligence and Soft Computing

Mind-Melding Unity and Blender for 3D Game Development

Vertex and Fragment Shaders for Game Developers

Mastering Game Development with Unreal Engine 4

Moving from Unity to Godot

Sams Teach Yourself, Godot Engine Game Development in 24 Hours

Game Engine Architecture, Second Edition

In this new and improved third edition of the highly popular Game Engine Architecture, Jason Gregory draws on his nearly two decades of experience at Midway, Electronic Arts and Naughty Dog to present both the theory and practice of game engine software development. In this book, the broad range of technologies and techniques used by AAA game studios are each explained in detail, and their roles within a real industrial-strength game engine are illustrated. New to the Third Edition This third edition offers the same comprehensive coverage of game engine architecture provided by previous editions, along with updated coverage of: computer and CPU hardware and memory caches, compiler optimizations, C++ language standardization, the IEEE-754 floating-point representation, 2D user interfaces, plus an entirely new chapter on hardware parallelism and concurrent programming. This book is intended to serve as an introductory text, but it also offers the experienced game programmer a useful perspective on aspects of game development technology with which they may not have deep experience. As always, copious references and citations are provided in this edition, making it an excellent jumping off point for those who wish to dig deeper into any particular aspect of the game development process. Key Features Covers both the theory and practice of game engine software development Examples are grounded in specific technologies, but discussion extends beyond any particular engine or API. Includes all mathematical background needed. Comprehensive text for beginners and also has content for senior engineers.

First Edition, Published in September 2019 Content and structure of this book In this book, the fifth book in the series, you will become comfortable with creating your own RPG. If you were ever interested in creating systems for your game to speed-up your coding and create and maintain levels easily, then this book is for you. The book includes a list of the learning objectives at the start of each chapter, step-by-step activities, and quizzes to test your knowledge, and the content of each chapter is as follows: - Chapter 1 gives an introduction to the RPG genre. You will learn the design principles that will help you to speed-up your development process. - Chapter 2 helps you to create and animate your main 3D character, add a camera that will follow this character as well as a mini-map. You will also learn to use ProBuilder to create a village. - Chapter 3 explains how to create a dialogue system from an XML file, and how to integrate it seamlessly into your game. - Chapter 4 explains how you can create a simple inventory system and use it to collect, store, and use items that you will find in your quest. - Chapter 5 shows you how to create a shop where the player can buy items that will then be added to the inventory. - Chapter 6 explains how you can create different types of animated and intelligent NPCs that will challenge the player. - Chapter 7 explains how you can create a quest system based on an XML file to manage the objectives for each of your levels. You will learn to read, and use this file for your game. - Chapter 8 explains how you can create an XP attribution system where the player can use the Xps gained in the previous level to increase his/her skills (e.g., accuracy, power, etc.) - Chapter 9 shows you how you can create a maze randomly using a procedural method so that the maze is different every time the game is played. - Chapter 10 combines the skills that you have learned so far to create a final level where the player needs to eliminate guards, collect gold, and also defeat the boss. After reading this book you will become a better game programmer, improve your knowledge of coding and unity, understand how to make a more complex product, learn some techniques to make an RPG game more modular, especially the quest system, use reusable code/assets that you can employ in your own game, create an inventory for your characters and much more... If you want to get started with your first RPG in Unity and learn reusable systems for your other games, using a tried-and-tested method: buy this book now!

Takes programmers through the complete process of developing a professional quality game, covering a range of topics such as the key "gotcha" issues that could trip up even a veteran programmer, game interface design, game audio, and game engine technolog Learn how to create your own video games using Godot 3.x About This Video Quickly and efficiently create various video games from scratch using Godot 3.1 Create multiple small-scale video games and use many different components of the Godot Engine Gain invaluable tricks for structuring your game projects in the most efficient way possible In Detail Godot is a free open source game engine that provides a huge set of common tools. This course is an introduction to the Godot game engine and its newly released version: 3.1. Godot 3.1 brings a large number of new features and capabilities that make it a strong alternative to more expensive commercial game engines. Godot is a powerful, customizable tool for bringing your visions to life. In this course, you will learn to build projects that will help developers achieve a sound understanding of the engine when it comes to building games. This course can help you build on your foundation level skills by showing you how to create a number of small-scale game projects. Along the way, you will learn how Godot works and discover important game development techniques that you can apply to your projects. You will learn to develop cross-platform games, leverage Godot's node and scene system to design robust, reusable game objects and also integrate Blender easily and efficiently with Godot to create powerful 3D games. Using a straightforward, step-by-step approach and practical examples, the course will take you from the absolute basics through to sophisticated game physics, animations, and other techniques. Upon completing the final project, you will have a strong foundation for future success with Godot 3.1. Please note: Some prior programming experience in C++ is strongly recommended before starting the course. Familiarity with the Godot game engine will be beneficial, but the course will cover the foundations of using Godot's core features for game-building.

Learn IOS 12 Game Development Using SpriteKit, SceneKit and ARKit 2. 0, 3rd Edition

Godot 3.1 Game Engine

Unity From Zero to Proficiency (Foundations)

Unity 2018 By Example

Hands-on Rust

A step-by-step guide to creating your first game with Unity

Practical Shader Development

New book by the author of the well-known titles on Godot game engine and GDScript such as "GD Script", "Making games with GDScript" and "Autonomous Cars". The book uses the MTH method for learning and is written for both beginner and experienced game developers. Beginners are advised to read a book from the beginning, and game developers to use it as a reminder and troubleshooting guide. (From book preface) If you are a complete beginner, start reading from the beginning. You will learn the basics of GDScript through the features and methods of the 2D node class. After that, go through the "GDScript in the programming" chapter. Later, you can learn about StaticBody2D, RigidBody2D, and KinematicBody2D. Game examples after @GDScript class and after 2D Body's chapter will be of additional help to you. In addition to the above for beginners, I advise you to watch free video tutorials on my Udemy account (Slavs Make Games M.D.C.). The book is a complete manual for making video games and comes with a lot of additional educational material. A game developer reading this book will find properties and methods for a particular class. In addition, each property and method is illustrated by a code example. At the end of the class description, is also a code example. Examples like this are often parts of computer games. After ordering the book, write to e-mail letray2@yahoo.com to get additional educational content with the book. Additional educational content includes: - free courses - Discount coupons for courses - free pdf educational materials

First published in 1992. Routledge is an imprint of Taylor & Francis, an informa company.

This updated bestseller provides an introduction to programming interactive computer graphics, with an emphasis on game development using DirectX 12. The book is divided into three main parts: basic mathematical tools, fundamental tasks in DirectX3D, and techniques and special effects. It shows how to use new DirectX12 features such as command lists, pipeline state objects, descriptor heaps and tables, and explicit resource management to reduce CPU overhead and increase scalability across multiple CPU cores. The book covers modern special effects and techniques such as hardware tessellation, writing compute shaders, ambient occlusion, reflections, normal and displacement mapping, shadow rendering, and character animation. Includes a companion DVD with code and figures. eBook Customers: Companion files are available for downloading with order number/proof of purchase by writing to the publisher at info@merclearning.com. FEATURES: • Provides an introduction to programming interactive computer graphics, with an emphasis on game development using DirectX 12 • Uses new DirectX3D 12 features to reduce CPU overhead and take advantage of multiple CPU cores • Contains detailed explanations of popular real-time game effects • Includes a DVD with source code and all the images (including 4-color) from the book • Learn advance rendering techniques such as ambient occlusion, real-time reflections, normal and displacement mapping, shadow rendering, programming the geometry shader, and character animation • Covers a mathematics review and 3D rendering fundamentals such as lighting, texturing, blending and stenciling • Use the end-of-chapter exercises to test understanding and provide experience with DirectX 12