Unity Multiplayer Games

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Unity in Action, Third Edition - Joe Hocking 2022-02-08
Unity in Action, Third Edition teaches you to create games with the Unity game platform. It's many 2D, 3D, and AR/VR game examples give you hands-on experience with Unity's workflow tools and state-of-the-art rendering engine. This fully updated third edition presents new coverage of Unity's XR toolkit and shows you how you can start building with virtual and augmented reality.
Unity From Zero to Proficiency (Foundations) - Patrick Felicia 2017-11-01
Newly Edited and Updated Version (Fourth Edition) for Unity 2019. Get started with Unity and game programming fast without the headaches Unity 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 Unity the hard way. This book is the only one that will get you to learn Unity fast without wasting so much time. This book is the first book in the series "Unity from Zero to Proficiency" where you will learn to code fast and be able to create your own video games with Unity in no time. What you will learn - After completing this book, you will be able to: - Know and master the features that you need to create 2D and 3D environments for your games. - Quickly create (and navigate through) realistic 3D indoors and outdoors environments. - Create a 3D Maze with lights, walls, and textures. - Use ProBuilder to create a house. - Create an island with trees, sandy beaches, mountains, and water. - Include and control a car and a plane. - Create a 2D platform game (with no scripting needed). - Export your games to the web. Who this book is for This book is for: - Hobbyists who need a book that gets them started 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.

Unity from Zero to Proficiency (Intermediate) - Patrick Felicia Newly Edited and Updated Version (Third Edition) for Unity 2020 Learn C# with Unity, and create a full FPS game without the headaches Without this book, most people spend too long trying to learn C# with Unity the hard way. This book is the only one that will get you to learn Unity fast without wasting so much time. It includes twelve chapters that painlessly teach you the necessary skills to create an FPS game and to learn intermediate C# and Unity techniques. What you will learn After completing this book, you will be able to: - Use Unity's built-in methods. - Use Rigidbody physics to propel airborne objects. - Use a Finite State Machine to create intelligent Non-Payer Characters(NPCs). - Manage 3D animations for the NPCs. - Create NPCs who can chase the player. - Create and manage weapons and ammunition for the player. - Include advanced Artificial Intelligence for NPCs including: vision, hearing, random paths, fleeing from or ambusghing the player. - Create a 2D scrolling shooter. Content and structure of this book The content of the books is as follows: - In Chapter 1, you will create a simple 3D game where the user has to reach the end of the level by avoiding projectiles from intelligent robots. - In Chapter 2, you will create a gun and a grenade launcher that the player can use to defeat enemies. - In Chapter 3, you will start to use Mecanim and NavMesh navigation to control an animated character that detects, follows, or attacks the player. - In Chapter 4, you will combine the skills that you have acquired in the previous chapters to create a fully functional level where the player needs to escape a level full of armed NPCs. You will also learn how to generate a game level dynamically from your code. - In Chapter 5, you will add off mesh links and manage costs and areas so that NPCs can avoid sections. - In Chapter 6, you will make it possibel for NPCs to follow fixed or random paths. - In Chapter 7, you will add vision and hearing to the NPCs. - In Chapter 8, you will create smarter NPCs that can flee from or ambush the player. - In Chapter 9, you will control an army of NPCs and create an AI-driven oppoite team. - In Chapter 10, you will create a simple 2D scrolling shooter. - In Chapter 11, you will improve your game by adding explosions and a scrolling background. - In Chapter 12, you will add intelligent spaceships that attack the player. - In Chapter 13, you will include a shield to the player's spaceship, along with other interesting features (e.g., sound FX, a scoring system, etc). If you want to create FPS games, Intelligent NPCs, and 2D Shooters with Unity using a tried-and-tested method: download this book now!

Introduction to Unity 3D with C# - Biblebyte Books 2019-07-31 Introduction to Unity 3D with C# - The Exodus Adventure is a step-by-step self-study tutorial for beginners. It teaches, with detailed screenshots, how to build a high quality, Third Person view, 3D Puzzle Adventure game based on the Book of Exodus. Students are provided with high quality 3D character models and a large 3D Environment to work with. We also include a complete game soundtrack with stingers and combat music for the students to use in their projects. This tutorial details in step-by-step process (with screenshots) how to design, program and develop a 3D Bible Adventure Game using Unity 3D and C# using the following puzzle game mechanics: - 3rd person controller using

Unity's Mecanim animation system - Walk, run, jump, turn, crouch, and interact with objects - Interact with actors and objects - Display Dialogue to the player - Item Management - Main Quests to advance the plot - Side Quests to immerse the player in the times - Explore the environment - Full screen map and mini-map showing key locations - Quest Journal to manage quests - Create a variety of puzzles for players to solve - In-Game Cut-Scenes for dialogue without player intervention - 2 In-game Cinematics for Game Opening and Ending - Unity Multipurpose Avatar (UMA) Introduction to Unity 3D with C# is presented using a combination of over 400 color pages of course notes and actual C# coding examples. No prior programming experience is necessary, but familiarity with doing common tasks using Microsoft Windows is expected. Introduction to Unity 3D with C# requires either Microsoft Windows 10 or macOS, ability to view and print documents saved in Microsoft Word format or Adobe Acrobat, Microsoft Visual Studio 2019 Community Edition and the Unity 2018.3 or Unity 2019.1 3D Game Engine. All C# Source Code, 3D models, multimedia download files and a full soundtrack are from the publisher's website (BibleByteBooks.com) after textbook registration.

Augmented Reality Game Development - Micheal Lanham 2017-01-20
Create your own augmented reality games from scratch with Unity 5 About This Book Create your own augmented reality game from scratch and join the virtual reality gaming revolution Use the latest Unity 5 VR SDK to create pro-level AR games like Pokemon Go Innovate and explore the latest and most promising trend of AR gaming in the mobile gaming industry Who This Book Is For This book is for those who have a basic knowledge of game development techniques, but no previous knowledge of Unity is required. Some basic programming knowledge would be desirable, but the book is an introduction to the topic. The book is also suitable for experienced developers new to GIS or GPS development. What You Will Learn Build a location-based augmented reality game called Foodie Go Animate a player's avatar on a map Use the mobile device's camera as a game background Implement database persistence with SQLLite4Unity3D to carry inventory items across game sessions Create basic UI elements for the game, inventory, menu, and settings Perform location and content searches against the Google Places API Enhance the game's mood by adding visual shader effects Extend the game by adding multiplayer networking and other enhancements In Detail The heyday of location-based augmented reality games is upon us. They have been around for a few years, but the release of Pokemon Go was a gamechanger that catalyzed the market and led to a massive surge in demand. Now is the time for novice and experienced developers alike to turn their good ideas into augmented reality (AR) mobile games and meet this demand! If you are keen to develop virtual reality games with the latest Unity 5 toolkit, then this is the book for you. The genre of location-based AR games introduces a new platform and technical challenges, but this book will help simplify those challenges and show how to maximize your game audience. This book will take you on a journey through building a location-based AR game that addresses the core technical concepts: GIS fundamentals, mobile device GPS, mapping, map textures in Unity, mobile device camera, camera textures in Unity, accessing location-based services, and other useful Unity tips. The technical material also discusses what is necessary for further development to create a multiplayer version of the game. At the end, you will be presented with troubleshooting techniques in case you get into trouble and need a little help. Style and approach This book shows you how to create every step of the game and gives practical examples.

Massively Multiplayer Game Programming With Unity 3d and Mirror - Chihming Chiu 2021-05-28
Nowadays, online gaming has become a multi-billion-dollar industry, but in the past, it took a lot of time and manpower to develop an MMOG (massively multiplayer online game). This is because MMOG is a very complex system, and the development of a fastpaced online action game requires further technical considerations. After reading books and tutorials related to online game design, many readers are still unable to develop a multiplayer online game because the current books on the market are all focused on the technical discussion, but lack a complete and coherent example. This book adopts a new way to explore this

complex topic; that is, a working online game example is focused and comes with programming details to verify the theoretical discussion. The reason why it can be presented in this way is based on my work over a decade as both a professional game developer and a lecturer of multimedia and game development at several universities in Taiwan. Over the years, our team has accumulated experience and achievements in making online games, and obtained good results in related online game-design competitions. This book aims to share our experience with anyone interesting in making MMOGs. If you have some experience in any programming language and want to know how to implement a massively multiplayer online game, this book is perfect for you. In the first part of this book, the essentials of the C# programming language, which is currently the main script language of the Unity game engine, is covered, followed by exploring the C# Object-Oriented Programming techniques required in the later chapters. After you become familiar with programming in C#, further examples are provided in the rest of this book to guide you to build and host an MMOG. If you are an experienced Unity game developer who is interesting in MMOG development, this book is also useful. C# network and multithreaded programming are introduced in the second part to help the readers understanding the fundamentals in the network library, like the UNet or Mirror used in this book. Also, a dedicated chapter for mobile online game development covers the details of porting your MMOG to the largest gaming platform. Through the provided working examples, you'll not only understand the details in implementing an MMOG but also can apply the techniques presented in this book to the other networking libraries or game engines.

Building a Game with Unity and Blender - Lee Zhi Eng 2015-11-27

Learn how to build a complete 3D game using the industry-leading Unity game development engine and Blender, the graphics software that gives life to your ideas About This Book Learn the fundamentals of two powerful tools and put the concepts into practice Find out how to designand buildall the core elements required for a great game - from characters to environments, to props— Learn how to integrate Artificial Intelligence (AI) into your game for sophisticated and engaging gameplay Who This Book Is For This book has been created for anyone who wants to learn how to develop their own game using Blender and Unity, both of which are freely available, yet very popular and powerful, tools. Not only will you be able to master the tools, but you will also learn the entire process of creating a game from the ground up. What You Will Learn Design and create a game concept that will determine how your game will look and how it will be played Construct 3D models of your game characters and create animations for them before importing them into the game Build the game environment from scratch by constructing the terrain and props, and eventually put it all together to form a scene Import and integrate game assets created in Blender into Unity—for example, setting up textures, materials, animation states, and prefabs Develop game structures including a game flow, user interface diagram, game logic, and a state machine Make the game characters move around and perform certain actions either through player inputs or fully controlled by artificial intelligence Create particles and visual effects to enhance the overall visual aesthetic Deploy the game for various types of platforms In Detail In the wake of the indie game development scene, game development tools are no longer luxury items costing up to millions of dollars but are now affordable by smaller teams or even individual developers. Among these cutting-edge applications, Blender and Unity stand out from the crowd as a powerful combination that allows small-to-no budget indie developers or hobbyists alike to develop games that they have always dreamt of creating. Starting from the beginning, this book will cover designing the game concept, constructing the gameplay, creating the characters and environment, implementing game logic and basic artificial intelligence, and finally deploying the game for others to play. By sequentially working through the steps in each chapter, you will quickly master the skills required to develop your dream game from scratch. Style and approach A step-by-step approach with tons of screenshots and sample code for readers to follow and learn from. Each topic is explained sequentially and placed in context so that readers can get a better understanding of every step in the process of creating a fully functional game.

Unity Ios Game Development Beginners Guide - Gregory Pierce 2012
This step-by-step book guides you through the process of using Unity to create monetized iOS games. It will get you through all the major learning points in a smooth, logical order. Youwill also learn how to avoid some common pitfalls. This book is for developers and designers who want to learn the process of building commercial game applications using Unity. It is intended for novices through to intermediate developers of all types regardless of their skill level with Unity. This book is packed with clear instructions and careful explanations for creating a powerful social networking site using Drupal 7. With each chapter, you add new features and content until your social network is ready to be released to the Internet where it can grow. By the end of this book, you will have a powerful social network which you can either choose to model on the case-study, or create to your own unique design. This book is aimed at anyone looking to create their own social networking website, including: Businesses – building a social network around a product or service can improve your company profile and increase customer loyalty, while an internal social network gives you employees a place to keep resources, discuss ideas, raise concerns, and keep up to date on company policies. Hobbyists – create a community around your hobbies and interests; create a local or distributed user group. Organizations and charities – raise your profile, promote your events, services, and fundraisers, and get help from the community in organizing them. Families – for large families based across the country or across the globe, keep up to date with everyone, and let everyone know what you are up to. You don't need any experience of Drupal or PHP to use this book. If you are a Drupal user you will find this book a great way to rapidly tailor an existing installation into a socially orientated website.
Mastering Unity 2017 Game Development with C# - Alan Thorn 2017-10-30
Master realistic animations and graphics, particle systems, game AI and physics, sprites and VR development with Unity 2017 About This Book Create professional grade games with realistic animation and graphics, particle systems and game physics with Unity 2017 Unleash the power of C# scripting to create intelligent game AI and professional grade game workflows. Create immersive VR games using the latest Unity 2017 VR SDK. Who This Book Is For If you are a Unity developer who now wants to develop and deploy interesting games by leveraging the new features of Unity 2017, then this is the book for you. Basic knowledge of C# programming is assumed. What You Will Learn Explore hands-on tasks and real-world scenarios to make a Unity horror adventure game Create enemy characters that act intelligently and make reasoned decisions Use data files to save and restore game data in a way that is platform-agnostic Get started with VR development Use navigation meshes, occlusion culling, and Profiler tools Work confidently with GameObjects, rotations, and transformations Understand specific gameplay features such as AI enemies, inventory systems, and level design In Detail Do you want to make the leap from being an everyday Unity developer to being a pro game developer? Then look no further! This book is your one-stop solution to creating mesmerizing games with lifelike features and amazing gameplay. This book focuses in some detail on a practical project with Unity, building a first-person game with many features. You'll delve into the architecture of a Unity game, creating expansive worlds, interesting render effects, and other features to make your games special. You will create individual game components, use efficient animation techniques, and implement collision and physics effectively. Specifically, we'll explore optimal techniques for importing game assets, such as meshes and textures; tips and tricks for effective level design; how to animate and script NPCs; how to configure and deploy to mobile devices; how to prepare for VR development; how to work with version control; and more. By the end of this book, you'll have developed sufficient competency in Unity development to produce fun games with confidence. Style and approach This book takes an easy-to-follow, step-by-step tutorial approach. You will create an advanced level Unity game with an emphasis on leveraging advanced Unity 2017 features while developing the game in its entirety.
Unity Android Game Development by Example Beginner's Guide - Thomas Finnegan 2013-12-20

Unity Android Game Development by Example Beginner's Guide consists of different game application examples. No prior experience with programming, Android, or Unity is required. You will learn everything from scratch and will have an organized flow of information specifically designed for complete beginners to Unity.Great for developers new to Unity, Android, or both, this book will walk you through everything you need to know about game development for the Android mobile platform. No experience with programming, Android, or Unity is required. Most of the assets used in each chapter project are provided with the book, but it is assumed that you have some access to basic image and model creation software. You will also need access to an Android powered device.

Unity Multiplayer Games - Alan R. Stagner 2013-12-20

An easy-to-follow, tutorial manner that uses the learning-by-example approach. If you are a developer who wants to start making multiplayer games with the Unity game engine, this book is for you. This book assumes you have some basic experience with programming. No prior knowledge of the Unity IDE is required.

Hands-On Unity 2020 Game Development - Nicolas Alejandro Borromeo 2020-07-29

Build immersive game experiences using the new Unity 2020 features with this practical guide Key FeaturesUnleash the capabilities of C# scripting for creating immersive UI, graphics, Game AI agents and much moreExplore Unity's latest tools, including Universal Render Pipeline, Shader Graph, and VFX graph, to enhance graphics and animationGet started with building augmented reality experience using Unity’s AR FoundationBook Description Over the years, the Unity game engine has extended its scope from just being about creating video games to building AR/VR experiences, complex simulations, real-time realistic rendering, films, and serious games for training and education. Its features for implementing gameplay, graphics, and customization using C# programming make Unity a comprehensive platform for developing professional-level, rich experiences. With this book, you'll be able to build impressive Unity projects in a step-by-step manner and apply your knowledge of Unity concepts to create a real-world game. Complete with hands-on tutorials and projects, this easy-to-follow guide will show you how to develop your first complete game using a variety of Unity tools. As you make progress, you'll learn how to make the most of the Unity Editor and create scripts using the C# programming language. This Unity game development book will then take you through integrating graphics, sound, and animations and manipulating physics to create impressive mechanics for your games. You'll also learn how to code a simple AI agent to challenge the user and use profiling tools to ensure that the code runs in a performant way. Finally, you'll get to grips with Unity's AR Foundation for creating AR experiences for 3D apps and games. By the end of this book, you'll have developed a complete game and will have built a solid foundation using Unity's tooling ecosystem to develop game projects of any scale. What you will learnWrite scripts for customizing various aspects of a game, such as physics, gameplay, and UIProgram rich shaders and effects using Unity's new Shader Graph and Universal Render PipelineImplement postprocessing to increase graphics quality with full-screen effectsCreate rich particle systems for your Unity games from scratch using VFX Graph and ShurikenAdd animations to your game using the Animator, Cinemachine, and TimelineImplement game artificial intelligence (AI) to control character behaviorDetect and fix optimization issues using profilers and batchingWho this book is for This book is for game developers looking to migrate to the Unity game engine. If you are a developer with some exposure to Unity, this book will help you explore its latest features. Prior experience with C# programming is required to get the most out of the book.

Multiplayer Game Programming - Josh Glazer 2015-11-20

The Practical Guide to Building Reliable Networked Multiplayer Games Networked multiplayer games are a multibillion dollar business: some games now attract tens of millions of players. In this practical, code-rich guide, Joshua Glazer and Sanjay Madhav guide you through every aspect of engineering them. Drawing on their immense experience as both game developers and instructors, the authors lead you through building a robust multiplayer architecture, and creating every engine-level system. You’ll learn through in-depth working code examples for two complete

games: an action game and a real time strategy (RTS) game. First, Madhav and Glazer review the essentials of networking and network programming from the standpoint of game developers. Next, they walk through managing game data transmission, updating game objects across the network, and organizing the devices that join your game. You'll learn how to ensure reliable performance despite the Internet's inherent inconsistencies, and how to design game code for maximum security and scalability. The authors conclude by addressing two increasingly crucial issues: incorporating gamer services and hosting your games in the cloud. This guide's content has been extensively tested through the authors' multiplayer game programming courses at USC. It is equally valuable both to students and to working game programmers moving into networked games. Coverage includes How games have evolved to meet the challenges of networked environments Using Internet communication protocols and standards in game development Working with Berkeley Socket, the most widely used networking construct in multiplayer gaming Formatting game data for efficient Internet transmission Synchronizing states so all players share the same world Organizing networking topologies for large-scale games Overcoming latency and jitter problems that cause delays or lost data Scaling games without compromising performance Combating security vulnerabilities and software cheats Leveraging the networking functionality of the popular Unreal 4 and Unity game engines Integrating gamer services such as matchmaking, achievements, and leaderboards Running game servers in the cloud About the Website C++ source code for all examples is available at github.com/MultiplayerBook . Instructors will also find a full set of PowerPoint slides and a sample syllabus.

Learning 2D Game Development with Unity - Matthew Johnson 2014-12-12

The Unity Engine Tutorial for Any Game Creator ¿ Unity is now the world's #1 game engine, thanks to its affordability, continuous improvements, and amazing global community. With Unity, you can design, code, and author your game once, and then deploy it to multiple platforms, reaching huge audiences and earning maximum returns. Learning 2D Game Development with Unity® will help you master Unity and build powerful skills for success in today's game industry. It also includes a bonus rundown of the new GUI tools introduced in Unity's version 4.6 beta. ¿ With this indispensable guide, you'll gain a solid, practical understanding of the Unity engine as you build a complete, 2D platform-style game, hands-on. The step-by-step project will get you started fast, whether you're moving to Unity from other engines or are new to game development. ¿ This tutorial covers the entire development process, from initial concept, plans, and designs to the final steps of building and deploying your game. It illuminates Unity's newly integrated 2D toolset, covering sprites, 2D physics, game scripts, audio, and animations. Throughout, it focuses on the simplest and lowest-cost approaches to game development, relying on free software and assets. Everything you'll need is provided. ¿ Register your book at informit.com/title/9780321957726 to access assets, code listings, and video tutorials on the companion website. ¿ Learn How To Set up your Unity development environment and navigate its tools Create and import assets and packages you can add to your game Set up game sprites and create atlas sheets using the new Unity 2D tools Animate sprites using keyframes, animation controllers, and scripting Build a 2D game world from beginning to end Establish player control Construct movements that "feel right" Set up player physics and colliders Create and apply classic gameplay systems Implement hazards and tune difficulty Apply audio and particle effects to the game Create intuitive game menus and interface elements Debug code and provide smooth error handling Organize game resources and optimize game performance Publish your game to the web for others to see and play ¿

Mastering Unity 2D Game Development - Simon Jackson 2014-08-26

If you have C# knowledge but now want to become truly confident in creating fully functional 2D RPG games with Unity, then this book will show you everything you need to know.

Unity Animation Essentials - Alan Thorn 2015-06-24

Unity is a feature-rich, fully-integrated development engine that provides out-of-the-box functionality for the creation of interactive 3D content. It

is an exciting engine that has a rich and sophisticated animation system called Mecanim. Unity Animation Essentials offers a comprehensive introduction to powerful animation tools and principles in Unity, which can be used to make great games. This book starts by exploring core animation concepts and then dives deeper to demonstrate their practical application in real-time games. This book shares extensive and useful insights to create animations using a professional grade workflow, and to create responses and interactive scenes. Each chapter focuses on a specific range of topics, from timing and events to character animation and particle systems. By the end of the book, you should be able to fully utilize the powers of Mecanim and Unity.

Unity in Action - Joseph Hocking 2018-03-27

Summary Manning's bestselling and highly recommended Unity book has been fully revised! Unity in Action, Second Edition teaches you to write and deploy games with the Unity game development platform. You'll master the Unity toolset from the ground up, adding the skills you need to go from application coder to game developer. Foreword by Jesse Schell, author of The Art of Game Design Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Build your next game without sweating the low-level details. The Unity game development platform handles the heavy lifting, so you can focus on game play, graphics, and user experience. With support for C# programming, a huge ecosystem of production-quality prebuilt assets, and a strong dev community, Unity can get your next great game idea off the drawing board and onto the screen! About the Book Unity in Action, Second Edition teaches you to write and deploy games with Unity. As you explore the many interesting examples, you'll get hands-on practice with Unity's intuitive workflow tools and state-of-the-art rendering engine. This practical guide exposes every aspect of the game dev process, from the initial groundwork to creating custom AI scripts and building easy-to-read UIs. And because you asked for it, this totally revised Second Edition includes a new chapter on building 2D platformers with Unity's expanded 2D toolkit. What's Inside Revised for new best practices, updates, and more! 2D and 3D games Characters that run, jump, and bump into things Connect your games to the internet About the Reader You need to know C# or a similar language. No game development knowledge is assumed. About the Author Joe Hocking is a software engineer and Unity expert specializing in interactive media development. Table of Contents PART 1 - First steps Getting to know Unity Building a demo that puts you in 3D space Adding enemies and projectiles to the 3D game Developing graphics for your game PART 2 - Getting comfortable Building a Memory game using Unity's 2D functionality Creating a basic 2D Platformer Putting a GUI onto a game Creating a third-person 3D game: player movement and animation Adding interactive devices and items within the game PART 3 - Strong finish Connecting your game to the internet Playing audio: sound effects and music Putting the parts together into a complete game Deploying your game to players' devices

Unity 3.x Game Development by Example - Ryan Henson Creighton 2011-09-01

A seat-of-your-pants manual for building fun, groovy little games quickly with Unity 3.x.

Developing 2D Games with Unity - Jared Halpern 2018-11-28

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.

Mobile Game Development with Unity - Jonathon Manning 2017-08-02

Do you want to build mobile games, but lack game development experience? No problem. This practical guide shows you how to create beautiful, interactive content for iOS and Android devices with the Unity game engine. Authors Jon Manning and Paris Buttfield-Addison (iOS Swift Game Development Cookbook) provide a top-to-bottom overview of Unity’s features with specific, project-oriented guidance on how to use them in real game situations. Over the course of this book, you’ll learn hands-on how to build 2D and 3D games from scratch that will hook and delight players. If you have basic programming skills, you’re ready to get started. Explore the basics of Unity, and learn how to structure games, graphics, scripting, sounds, physics, and particle systems Use 2D graphics and physics features to build a side-scrolling action game Create a 3D space combat simulator with projectile shooting and respawning objects, and learn how to manage the appearance of 3D models Dive into Unity’s advanced features, such as precomputed lighting, shading, customizing the editor, and deployment

Hands-On Unity 2021 Game Development - Nicolas Alejandro Borromeo 2021-08-20

Achieve mesmerizing game experiences using the latest Unity 2021 features by following a practical approach to building professional games Key FeaturesUnleash the capabilities of C# scripting to create UIs, graphics, game AI agents and moreExplore Unity's latest tools, including Universal Render Pipeline, Shader Graph, UI Toolkit, Visual Scripting, and VFX graph, to enhance graphics and animationBuild an AR experience using Unity’s AR FoundationBook Description Learning how to use Unity is the quickest way to creating a full game, but that’s not all you can do with this simple, yet comprehensive suite of video game development tools – Unity is just as useful for creating AR/VR experiences, complex simulations, real-time realistic rendering, films, and practical games for training and education. Hands-On Unity 2021 Game Development outlines a practical journey to creating your first full game from the ground up, building it step-by-step and applying your knowledge as you progress. Complete with hands-on tutorials and projects, this easy-to-follow guide will teach you how to develop the game using several Unity tools. As you advance, you will learn how to use the Unity engine, create simple scripts using C#, integrate graphics, sound, and animations, and manipulate physics to create interesting mechanics for your game. You’ll be able to apply all the knowledge that you gain to a real-world game. Later chapters will show you how to code a simple AI agent to challenge the user and use profiling tools to ensure that the code runs efficiently. Finally, you'll work with Unity's AR tools to create AR experiences for 3D apps and games. By the end of this Unity book, you will have created a complete game and built a solid foundation in using a wide variety of Unity tools. What you will learnExplore both C# and Visual Scripting tools to customize various aspects of a game, such as physics, gameplay, and the UIProgram rich shaders and effects using Unity's new Shader Graph and Universal Render PipelineImplement postprocessing to improve graphics quality with full-screen effectsCreate rich particle systems for your Unity games from scratch using VFX Graph and ShurikenAdd animations to your game

using the Animator, Cinemachine, and TimelineUse the brand new UI Toolkit package to create user interfacesImplement game AI to control character behaviorWho this book is for This book is best suited for game developers looking to upgrade their knowledge and those who want to migrate their existing skills to the Unity game engine. Those with prior Unity knowledge will also benefit from the chapters exploring the latest features. While you'll still able to follow along if you don't have any programming experience, knowing the fundamentals of C# programming will help you get the most out of this book.

Microsoft HoloLens By Example - Joshua Newnham 2017-08-31

Get to grips with HoloLens development as you create mixed reality apps from scratch About This Book Create awesome Augmented Reality (AR) apps for the Microsoft HoloLens platform Unleash the power of Unity SDK for HoloLens to create next generation AR apps Explore the exciting world of gesture control, visual mapping, voice command for apps, and many more cutting edge possibilities with HoloLens Who This Book Is For This book is for developers who have some experience with programming in any of the major languages such as C#, C++, and so on. You do need any knowledge of Augmented Reality development. What You Will Learn Extend the computing experience beyond the flat glass screen by placing and embedding virtual objects holograms) into the physical world Interact with the holograms using gaze, gestures, and voice Enhance the experience with spatial sound Allow multiple users to naturally collaborate with each other Integrate voice commands into your own HoloLens projects Experiment with techniques to better understand the real world Implement a user interface in Mixed Reality Blend the virtual and physical world by making the holograms interact and react to the physical environment In Detail Are you a developer who is fascinated with Microsoft HoloLens and its capabilities? Do you want to learn the intricacies of working with the HoloLens SDK and create your own apps? If so, this is the book for you. This book introduces and demystifies the HoloLens platform and introduces new ways you can interact with computers (Mixed Reality). It will teach you the important concepts, get you excited about the possibilities, and give you the tools to continue exploring and experimenting. You will go through the journey of creating four independent examples throughout the book, two using DirectX and two using Unity. You will learn to implement spatial mapping and gesture control, incorporate spatial sound, and work with different types of input and gaze. You will also learn to use the Unity 5 SDK for HoloLens and create apps with it. Collectively, the apps explore the major concepts of HoloLens, but each app is independent, giving you the flexibility to choose where to start (and end). Style and approach This book takes an example-based approach where you'll build AR apps with increasing difficulty. You will learn more about HoloLens platform as well as AR app development in general.

Design of a Server-Oriented Multiplayer Game for a Biofeedback System Using Unity 3D - Michael Prummer 2014-07-08

Bachelor Thesis from the year 2014 in the subject Computer Science - Software, grade: 1,3, LMU Munich (Meideninformatik), language: English, abstract: This project is done in collaboration with the German Heart Center. The goal of the project is to research and develop systems that help children with heart disorders to recover physical illness after having an operative treatment. The system uses electronic games to help motivate the children to perform exercise. Playing games will cause the children to perform moves that are supporting the rehabilitation process. The patients physical engagement is measured by biomedical sensors and used for controlling the intensity and frequency of moves that are stressed by playing the game.

Entromancy - M. Farzan 2015-11-02

2076 is not a good year to be a special agent. A quarter of the world's power runs on ceridium, a newly discovered element that has had the unintended consequence of spawning a new race of people, and several forms of magic that were once thought to have been forgotten. Eskander Aradowsi is an agent of NIGHT, a paramilitary force created to contain and control this new perceived threat, but he soon learns that not all within his organization is as it seems. A botched mission turns out to be the least of his troubles, when he unearths a plot that threatens the uneasy truce between the aurics and humans of San Francisco, and

centers on a form of magic that toys with the very fabric of the universe: Entromancy.

Building an RPG with Unity 2018 - Vahé Karamian 2018-07-30

Build a high-end, multiplayer role-playing game (RPG) from scratch with C# and Unity 2018 Key Features Get insights into Unity's user interface (UI) system and and build UIs for your RPG Implement artificial intelligence (AI) to build intelligent entities that take your game to the next level Develop multiplayer features for an RPG using Unity 2018 Book Description In a role-playing game (RPG), users control a character, usually in the game's imaginary universe. Unity has become a top choice for developers looking to create these kinds of immersive RPGs. Building an RPG with Unity 2018, based on building some of the most common RPG features, teaches you tips, tricks, and techniques that can be applied to your own game. To start with, the book guides you through the fundamentals of role-playing games. You will learn the necessary aspects of building an RPG, such as structuring the game environment, customizing characters, controlling the camera, and designing other attributes such as inventory and weapons. You will also explore designing game levels by adding more features. Once you have understood the bigger picture, you will understand how to tackle the obstacles of networking in Unity and implement multiplayer mode for your RPG games. By the end of the book, you will be able to build upon the core RPG framework elements to create your own immersive games. What you will learn Construct a framework for inventory, equipment, characters, enemies, quests, and game events Understand how to load and unload scenes and assets Create multiplayer game settings for your RPG Design a UI for user input and feedback Implement AI for non-character players Customize your character at runtime Who this book is for Building an RPG with Unity 2018 is for you if you are a programmer interested in developing and further enhancing your skills when developing RPGs in Unity 2018. This book does not cover the basics of Unity, and so is for intermediate or more advanced users.

Unity Multiplayer Games - Alan Stagner 2013-11

An easy-to-follow, tutorial manner that uses the learning-by-example approach.If you are a developer who wants to start making multiplayer games with the Unity game engine, this book is for you. This book assumes you have some basic experience with programming. No prior knowledge of the Unity IDE is required.

Pro Unity Game Development with C# - Alan Thorn 2014-05-29

In Pro Unity Game Development with C#, Alan Thorn, author of Learn Unity for 2D Game Development and experienced game developer, takes you through the complete C# workflow for developing a cross-platform first person shooter in Unity. C# is the most popular programming language for experienced Unity developers, helping them get the most out of what Unity offers. If you're already using C# with Unity and you want to take the next step in becoming an experienced, professional-level game developer, this is the book you need. Whether you are a student, an indie developer, or a season game dev professional, you'll find helpful C# examples of how to build intelligent enemies, create event systems and GUIs, develop save-game states, and lots more. You'll understand and apply powerful programming concepts such as singleton classes, component based design, resolution independence, delegates, and event driven programming. By the end of the book, you will have a complete first person shooter game up and running with Unity. Plus you'll be equipped with the know-how and techniques needed to deploy your own professional-grade C# games. If you already know a bit of C# and you want to improve your Unity skills, this is just the right book for you.

Unity 3D UI Essentials - Simon Jackson 2015-01-31

If you have a good understanding of Unity's core functionality and a decent grasp of C# scripting in Unity (although not essential if you are just using the Editor with the new UI), you'll be well placed to take advantage of the new UI feature set.

Building Multiplayer Games in Unity - Dylan Engelbrecht 2021-12-04

Take a deep dive into creating large-scale, multiplayer games with Unity 3D, using Mirror Networking and a variety of powerful transports. You will learn the fundamentals of RPC/Command multiplayer architecture and dig deeper into networking and data persistence to achieve scalable, highly performant, large-scale, multiplayer games in Unity. This book

explains how to develop multiplayer games using Unity within a commercial or enterprise environment. You will take a look at the networking fundamentals behind multiplayer games, including packets and the importance of keeping packets small. Next, you will look into Mirror Networking and see how to leverage a variety of transport layers to achieve large-scale, multiplayer games. Using Unity 3D as the core focus, you will get an understanding of the RPC/Command architecture and how you can utilize different authoritative structures to best suit your needs. You will also learn how to scale your architecture and explore industry-leading methods of deploying your game to the masses. You will also get a solid understanding of networking principles. The book wraps up with advice from leading experts who shed light on past mistakes and provide valuable insights for your next project. This book breaks down daunting concepts into easy-to-understand pieces of knowledge to help you create your first multiplayer game. It is a must-read for any developer looking to understand multiplayer games and networking. What You Will Learn ● Learn advanced multiplayer concepts and how to use them ● Understand the key concepts for creating multiplayer virtual experiences ● Know the basics of computer networking and how to employ them ● Deploy large, scalable multiplayer infrastructures for your games ● Gain insights from other industry professionals Who Is This Book For Intermediate to advanced Unity 3D developers looking to understand multiplayer networking and deploying large-scale products. Having a solid understanding of C# and Unity is required, and having an understanding or prior experience with networking principles such as IPv4 would be advantageous.

Development and Deployment of Multiplayer Online Games, Vol. II - 'No Bugs' Hare 2020-02-26

Trying to develop your own multiplayer online game can be overwhelming, especially as information on multiplayer specifics is very scarce. The nine-volume Development and Deployment of Multiplayer Games series is an attempt to summarize a body of knowledge that is known in the industry, but is rarely published, let alone published together. The series is highly praised by prominent representatives of the multiplayer gamedev industry. An "Early Praise" page within the book lists several testimonials by people from billion-dollar and/or AAA companies with job titles ranging from Managing Director and CTO to Backend Technical Director and Principal Software Engineer. Genres: From Social Games to MMOFPS, with Stock Exchanges In Between. Development and Deployment of Multiplayer Online Games aims to cover pretty much all the MOG genres - ranging from social games to MMORPGs and MMOFPS. While there are certainly differences between the genres, around 80% of the discussed concepts apply across the board. Level: Intermediate+. This series is not trying to teach very basics of the programming (and is not a book to copy-paste your MOG from). Rather, it is intended for those intermediate developers who want to progress into senior ones, and all the way up to CTOs and architects. In particular, there is no explanation of what event-driven programming is about, what the difference is between optimistic locking and pessimistic locking, why do you need a source control system, and so on. Instead, there will be discussions on how the concept of futures fits into event-driven programming, when the use of optimistic locking makes sense for games, and how to use source control in the presence of unmergeable files. This Volume: Vol. II Vol. II continues Part ARCH(itecture), and includes four Chapters. Chapter 4 discusses choices between DIY elements of your game and re-using 3rd-party ones, advocating for "responsible re-use". Chapter 5 explores (Re)Actors - which can be seen as a generalization of classical game loop, and allow to handle all the kinds of games, including, but not limited to, simulations. Special attention is paid to (Re)Actor goodies such as replay and production post-factum analysis. Chapter 6 concentrates on Client-Side Architecture - both generic and (Re)Actor-based. Note that serious discussion of the graphics is beyond the scope. Chapter 7 is aimed at those development teams who want to re-use popular existing engines (such as Unity 5, UE4, Lumberyard, or Urho3D) to develop an MOG. Various 3rd-party communication libraries (including Photon and SmartFoxServer) are also discussed in this context.

Building an RPG with Unity 5. X - Vahe Karamian 2016-10-17

Unleash the full potential of Unity to build a fully playable, high-quality multiplayer RPGAbout This Book- Learn to build a multiplayer real-time strategy game from scratch using Unity- Gain knowledge of Unity's UI system to build complex user interfaces- See how to build and customize your framework for your RPG gamesWho This Book Is ForIf you have always wanted to create a high-end RPG using Unity, then this book is for you. Prior knowledge of game development is required and experience working with Unity will be beneficial.What You Will Learn-Construct a framework for inventory, equipment, characters, enemies, quests, and game events- See how to load and unload scenes and assets-Create multiplayer game settings for our RPG- Design a UI for user input and feedback- Enhance Game Master to handle all aspects of the RPG-Develop a custom pathfinding system- Implement AI for character and non-character playersIn DetailUnity is one of the most cutting-edge game engines in the world. Developers are looking for the best ways to create games of any genre in the engine. This comprehensive guide on building an RPG with Unity teaches you high-end techniques currently used in developing modern games - the tips, tricks, and techniques can be applied to your own role RPG.We begin with an introduction to, and the fundamentals of, RPG games. Moving further, you will learn the necessary parts of building an RPG, such as structuring the game environment, customizing characters, controlling the camera, and designing other attributes like inventory, weapons, and so on. We also cover designing levels of the game by adding more features to it and making the game more interesting. You will also learn how to get around the obstacle of networking in Unity and be able to implement Multi-Player mode for your RPG games.By the end of the book, you will be able to build upon core the RPG framework elements to create your own game experience.Style and approachThis step-by-step tutorial will teach you how to build a multiplayer RPG. In this book you will explore the core concepts of what typical strategy one might need to build a complete game.

Unity Networking Fundamentals - Sloan Kelly 2021-11-14

Learn the fundamentals of networking with Unity and C#. This book covers a variety of topics, including accessing data using RESTful APIs, local networked games, and creating multiplayer online games using client-server architecture. The book provides the basics of networking, sockets, TCP vs. UDP, client-server architecture, serialization, RESTful APIs, network latency, and client-side prediction. Projects are presented to illustrate the concepts, including a chat client/server overlay for your game, and a 3D maze game that allows up to four players to connect over the network. By the end of the book, you will be familiar with low-level networking concepts such as protocols and architecture as well as high-level knowledge on how to create applications that use a client/server architecture for multiplayer games. What You Will Learn Know the difference between TCP and UDP, and the pros and cons of these protocols Create client-server multiplayer games in Unity using C# Receive and process data from a remote server using RESTful APIs Understand latency and how to mitigate its impact Who This Book Is For Readers familiar with Unity and C# development who want to create multiplayer games

ActionScript for Multiplayer Games and Virtual Worlds - Jobe Makar 2009-09-22

The demand for multiplayer games and virtual worlds has exploded over the last few years. Not only do companies want them for site stickiness through social networking, but developers have tremendous interest in exploring this niche area. While developing multiplayer content is challenging, it isn’t as difficult as you might think, and it is fun and highly rewarding! ActionScript for Multiplayer Games and Virtual Worlds explains fundamental multiplayer concepts from connecting to a server to real-time latency hiding techniques. In this book you’ll learn: How to connect users to achieve real-time interaction When to make decisions on the server versus the game client Time synchronization techniques How to use dead reckoning smoothing to hide network latency About tile-based games the isometric view Techniques for customizing and rendering avatars in a virtual world In addition, you’ll learn everything that goes into building: A real-time multiplayer tank battle game A real-time multilayer cooperative game A virtual world

Unity 5 from Zero to Proficiency (Advanced) - Patrick Felicia 2016-10-14
In this book, the fourth book in the series, you will learn to create a simple network game, generate levels procedurally, and optimize the performance of your game. This book can be read as a standalone (you don't need to have read the previous books in the series, although it may help) and focuses on four aspects: procedural level creation, database access, multi-player networked games, and code and project optimization (i.e., memory and speed).The main idea behind this book is to save you some headaches when you need to maintain your code or expand your game, and to help you to find the time to actually code your game, by explaining simple and effective ways and best coding and organizational practices that you can use easily to create more code (and games) in less time with less stress and more fun.The content of each chapter is as follows: Chapter 1 explains how you can create procedural levels, using arrays, text files, XML files, or images, and avoid spending a lot of time creating your scene manually. Chapter 2 explains how you can read and write data from/to a database through Unity to save and update user preferences. Chapter 3 explains how to create a simple (but fun) network tank game that can be played by two remote players. Chapter 4 explains advanced techniques to boost the performance of your game, and to make your code and project easily maintainable. Chapter 5 provides answers to frequently-asked questions. The book includes: Step-by-step activities. Challenges at the end of each chapter. Quizzes. Code solutions for each chapter. Cheat-sheets (i.e., shortcuts, best practice, etc.) that you can download.

Unity Virtual Reality Projects - Jonathan Linowes 2015-09-01
Explore the world of Virtual Reality by building immersive and fun VR projects using Unity 3D About This Book Learn the basic principles of virtual reality applications and get to know how they differ from games and desktop apps Build various types of VR experiences, including diorama, first-person characters, riding on rails, 360 degree projections, and social VR A project-based guide that teaches you to use Unity to develop VR applications, which can be experienced with devices such as the Oculus Rift or Google Cardboard Who This Book Is For If you're a non-programmer unfamiliar with 3D computer graphics, or experienced in both but new to virtual reality, and are interested in building your own VR games or applications then this book is for you. Any experience in Unity is an advantage. What You Will Learn Create 3D scenes with Unity and Blender while learning about world space and scale Build and run VR applications for consumer headsets including Oculus Rift and Google Cardboard Build interactive environments with physics, gravity, animations, and lighting using the Unity engine Experiment with various user interface (UI) techniques that you can use in your VR applications Implement the first-person and third-person experiences that use only head motion gestures for input Create animated walkthroughs, use 360-degree media, and build multi-user social VR experiences Learn about the technology and psychology of VR including rendering, performance and VR motion sickness Gain introductory and advanced experience in Unity programming with the C# language In Detail What is consumer “virtual reality”? Wearing a head-mounted display you view stereoscopic 3D scenes. You can look around by moving your head, and walk around using hand controls or motion sensors. You are engaged in a fully immersive experience. On the other hand, Unity is a powerful game development engine that provides a rich set of features such as visual lighting, materials, physics, audio, special effects, and animation for creating 2D and 3D games. Unity 5 has become the leading platform for building virtual reality games, applications and experiences for this new generation of consumer VR devices. Using a practical and project-based approach, this book will educate you about the specifics of virtual reality development in Unity. You will learn how to use Unity to develop VR applications which can be experienced with devices such as the Oculus Rift or Google Cardboard. We will then learn how to engage with virtual worlds from a third person and first person character point of view. Furthermore, you will explore the technical considerations especially important and possibly unique to VR. The projects in the book will demonstrate how to build a variety of VR experiences. You will be diving into the Unity 3D game engine via the interactive Unity Editor as well as C-Sharp programming. By the end of the book, you will be equipped to

develop rich, interactive virtual reality experiences using Unity. So, let's get to it! Style and approach This book takes a practical, project-based approach to teach specifics of virtual reality development in Unity. Using a reader-friendly approach, this book will not only provide detailed step-by-step instructions but also discuss the broader context and applications covered within.

Development and Deployment of Multiplayer Online Games, Vol. I - 'No Bugs' Hare 2017-07

Trying to develop your own multiplayer online game can be overwhelming, especially as information on multiplayer specifics is very scarce. The nine-volume Development and Deployment of Multiplayer Games series is an attempt to summarize a body of knowledge that is known in the industry, but is rarely published, let alone published together. The series is highly praised by prominent representatives of the multiplayer gamedev industry. An "Early Praise" page within the book lists several testimonials by people from billion-dollar and/or AAA companies with job titles ranging from Managing Director and CTO to Backend Technical Director and Principal Software Engineer. Genres: From Social Games to MMOFPS, with Stock Exchanges In Between. Development and Deployment of Multiplayer Online Games aims to cover pretty much all the MOG genres - ranging from social games to MMORPGs and MMOFPS. While there are certainly differences between the genres, around 80% of the discussed concepts apply across the board. Level: Intermediate+. This series is not trying to teach very basics of the programming (and is not a book to copy-paste your MOG from). Rather, it is intended for those intermediate developers who want to progress into senior ones, and all the way up to CTOs and architects. In particular, there is no explanation of what event-driven programming is about, what the difference is between optimistic locking and pessimistic locking, why do you need a source control system, and so on. Instead, there will be discussions on how the concept of futures fits into event-driven programming, when the use of optimistic locking makes sense for games, and how to use source control in the presence of unmergeable files. This Volume: Vol. I Vol. I starts Part ARCH(itecture), and includes three Chapters. Chapter 1 discusses Game Design Document (GDD) - mostly concentrating on its multiplayer specifics of GDDs. Chapter 2 explores the all-important aspects of cheating - which is virtually non-existent in single-player games and games between friends, but plays an enormous role in multiplayer games; the resulting analysis leads to Authoritative Server architectures (note that discussion on implementing anti-cheating measures is much longer than it is possible to fit into Vol. I, and will take the whole Vol. VIII). The largest chapter of Vol. I, Chapter 3, is dedicated to typical multiplayer communication flows. Along the course of this discussion, it will cover lots of different topics, including such different things as Client-Side Prediction, Low-Latency Compressible State Sync, Lag Compensation and its dangers, and Inter-DB Async Transfer with Transactional Integrity

Unity 4.x Game Development by Example Beginner's Guide - Ryan Henson Creighton 2013-12-26

This is a practical and light-hearted guide to get to grips with creating your first games, with easy-to-follow, step-by-step tutorials using the award winning Unity engine. If you’ve ever wanted to enter the world of independent game development but have no prior knowledge of programming or game development, then this is the book for you. Game developers transitioning from other tools like GameMaker and Flash will find this a useful tool to get them up to speed on the Unity engine, as will anyone who has never handled the Unity engine before.

Unity 3D Game Development by Example - Ryan Henson Creighton 2010-09-24

Beginner game developers are wonderfully optimistic, passionate, and ambitious. But that ambition is often dangerous! Too often, budding indie developers and hobbyists bite off more than they can chew. Some of the most popular games in recent memory – Doodle Jump, Paper Toss, and Canabalt, to name a few – have been fun, simple games that have delighted players and delivered big profits to their creators. This is the perfect climate for new game developers to succeed by creating simple games with Unity 3D, starting today. This book starts you off on the right foot, emphasizing small, simple game ideas and playable projects that

you can actually finish. The complexity of the games increases gradually as we progress through the chapters. The chosen examples help you learn a wide variety of game development techniques. With this understanding of Unity 3D and bite-sized bits of programming, you can make your own mark on the game industry by finishing fun, simple games. This book shows you how to build crucial game elements that you can reuse and re-skin in many different games, using the phenomenal (and free!) Unity 3D game engine. It initiates you into indie game culture by teaching you how to make your own small, simple games using Unity3D and some gentle, easy-to-understand code. It will help you turn a rudimentary keep-up game into a madcap race through hospital hallways to rush a still-beating heart to the transplant ward, program a complete 2D game using Unity's User Interface controls, put a dramatic love story spin on a simple catch game, and turn that around into a classic space shooter with spectacular explosions and "pew" sounds! By the time you're finished, you'll have learned to develop a number of important pieces to create your own games that focus in on that small, singular piece of joy that makes games fun. This book shoots straight for the heart of fun, simple game design and keeps shooting until you have all the pieces you need to assemble your own great games.

Beginning 3D Game Development with Unity 4 - Sue Blackman 2013-08-27

Beginning 3D Game Development with Unity 4 is perfect for those who would like to come to grips with programming Unity. You may be an artist who has learned 3D tools such as 3ds Max, Maya, or Cinema 4D, or you may come from 2D tools such as Photoshop and Illustrator. On the other hand, you may just want to familiarize yourself with programming games and the latest ideas in game production. This book introduces key game production concepts in an artist-friendly way, and rapidly teaches the basic scripting skills you'll need with Unity. It goes on to show how you, as an independent game artist, can create interactive games, ideal in scope for today's casual and mobile markets, while also giving you a firm foundation in game logic and design. The first part of the book explains the logic involved in game interaction, and soon has you creating game assets through simple examples that you can build upon and gradually expand. In the second part, you'll build the foundations of a point-and-click style first-person adventure game—including reusable state management scripts, dialogue trees for character interaction, load/save functionality, a robust inventory system, and a bonus feature: a dynamically configured maze and mini-map. With the help of the provided 2D and 3D content, you'll learn to evaluate and deal with challenges in bite-sized pieces as the project progresses, gaining valuable problem-solving skills in interactive design. By the end of the book, you will be able to actively use the Unity 3D game engine, having learned the necessary workflows to utilize your own assets. You will also have an assortment of reusable scripts and art assets with which to build future games. What you'll learn How to build interactive games that work on a variety of platforms Take the tour around Unity user interface fundamentals, scripting and more Create a test environment and gain control over functionality, cursor control, action objects, state management, object metadata, message text and more What is inventory logic and how to manage it How to handle 3D object visibility, effects and other special cases How to handle variety of menus and levels in your games development How to handle characters, scrollers, and more How to create or integrate a story/walkthrough How to use the new Mecanim animation Who this book is for Students or artists familiar with tools such as 3ds Max or Maya who want to create games for mobile platforms, computers, or consoles, but with little or no experience in scripting or the logic behind games development. Table of Contents 01. Introduction to Game Development 02. Unity UI basics 03. Introduction to Scripting 04. Terrain Generation and Environment 05. Exploring Navigation 06. Cursor Control and Interaction 07. Importing Assets 08. Action Objects 09. Managing State 10. Exploring Transitions 11. Physics and Special Effects 12. Message Text and HUD 13. Inventory Logic 14. Managing Inventory 15. Dialogue Trees 16. Mecanim 17. Game Environment 18. Setting up the Game 19. Menus and Levels

Holistic Mobile Game Development with Unity - Penny de Byl 2014-07-11

Holistic Mobile Game Development with Unity: An All-In-One Guide to

Implementing Mechanics, Art Design and Programming for iOS and Android Games Master mobile game design and development in this all-in-one guide to creating iOS and Android games in the cutting-edge game engine, Unity. By using Penny de Byl's holistic method, you will learn about the principles of art, design, and code and gain multidisciplinary skills needed to succeed in the independent mobile games industry. In addition, hands-on exercises will help you throughout the process from design to publication in the Apple App Store and Google Play Store. Over 70 practical step-by-step exercises recreating the game mechanics of contemporary mobile games, including Angry Birds, Temple Run, Year Walk, Minecraft, Curiosity Cube, Fruit Ninja, and more. Design principles, art, and programming in unison – the one-stop shop for indie developers requiring interdisciplinary skills in their small teams. An introduction to essential two- and three-dimensional mathematics, geometry and physics concepts. A portfolio of royalty free reusable game mechanics and assets. Accompanying website, www.holistic3d.com, features project source code, instructional videos, art assets, author blog, and teaching resources. Challenge questions and lesson plans are available online for an enhanced learning experience.