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Descrizione fisica	1 online resource (xix, 296 pages) : illustrations (some color)
Collana	Gale eBooks
Disciplina	004 794.815268
Soggetti	Application software - Development Mobile computing - Programming C++ (Computer program language)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Take your Android game apps to the next level with the power of C++" --Cover. Includes index.
Nota di contenuto	""Contents at a Glance""; ""Contents""; ""About the Author""; ""About the Technical Reviewer ""; ""Acknowledgments""; ""Introduction""; ""Chapter 1: An Introduction to Game Development""; ""A Brief History of Video Games""; ""Who Makes Games?""; ""The Difference between Computer Games and Board Games""; ""Comparing Mobile Phones to Game Consoles""; ""An Overview of Game Engines""; ""Summary""; ""Chapter 2: An Introduction to the Android Game Development Ecosystem""; ""Java and the Dalvik Virtual Machine""; ""C++ and the NDK""; ""Fragmentation and the Android Ecosystem""; ""Android Versions"" ""Screen Resolution and Aspect Ratio""""Input Device Support""; ""GPUs""; ""HelloDroid - Our First Android Game""; ""Creating a New Eclipse Project""; ""Adding NDK Support""; ""A Look at the NDK Build System""; ""Modifying the Build File""; ""Adding Application-Level Build Options""; ""Enabling Debugging""; ""Running the Game""; ""Summary""; ""Chapter 3: Game Design for Beginners: Droid Runner""; ""An Introduction to Design Documents""; ""Creating a World, Telling a Story, and Setting the Scene""; ""The Droid Runner Design Overview""; ""Section 1 - Game Overview"" ""Defining the Gameplay and Mechanics""""Section 2 - Gameplay and

Mechanics"; "Section 2.1 - Gameplay"; "Section 2.2 - Mechanics";  
"Section 2.2.1 - Movement"; "Section 2.2.2 - Obstacles"; "Section  
2.2.3 - Pickups"; "Level Design"; "Pacing"; "Aesthetics"; "Scale";  
"Technical Requirements"; "Summary"; "Chapter 4: Building a Game  
Engine"; "Creating an Application Object"; "Creating the Game Loop  
Using a Kernel and Tasks"; "Starting the Kernel Class"; "Defining the  
Task Interface"; "Examining the Kernel Methods"; "Androida€s  
Native App Glue"; "Timekeeping"  
"Summary""Chapter 5: Writing a Renderer"; "Initializing the Window  
and OpenGL Using EGL"; "An Introduction to Shaders"; "An  
Introduction to Vertex Shaders in OpenGL ES 2.0"; "An Introduction to  
Fragment Shaders in OpenGL ES 2.0"; "Creating a Shader Program";  
"Rendering a Quad with OpenGL"; "Representing Geometry";  
"Creating a Renderable"; "Creating the Basic Shader"; "Creating an  
App-Specific Application and Task"; "Applying Textures to  
Geometry"; "Loading a File"; "Loading a TGA File"; "Representing a  
GL Texture"; "Creating TextureShader"  
"Initializing Textures and Shaders""Loading Textures in a Task";  
"Summary"; "Chapter 6: Game Entities"; "What Is a Game Entity?";  
"Communicating with Game Objects via Events"; "The Event Class";  
"The EventHandler Classes"; "The EventManager"; "EventManagera€s  
s Friend Functions"; "Big O Notation"; "EventManagera€s Interface  
Methods"; "Rendering an Object"; "The TransformComponent  
Class"; "The Transform Class"; "The RenderableComponent"; "The  
TransformShader Class"; "The Player Object"; "Making the Player  
Jump"; "A Basic AI Entity"; "Summary"  
"Chapter 7: Building Game Levels with Collision"

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## Sommario/riassunto

Beginning Android C++ Game Development introduces general and Android game developers like you to Android's powerful Native Development Kit (NDK). The Android NDK platform allows you to build the most sophisticated, complex and best performing game apps that leverage C++. In short, you learn to build professional looking and performing game apps like the book's case study, Droid Runner. In this book, you'll learn all the major aspects of game design and programming using the Android NDK and be ready to submit your first professional video game app to Google Play and Amazon Appstore for today's Android smartphones and tablet users to download and play. The techniques contained in this book include building a game engine, writing a renderer, and building a full game app with entities, game levels and collisions. As part of the tutorial you'll also learn about inserting perspectives using cameras and including audio in your game app.

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