

Online Library
Vulkan Cookbook:
Solutions To Next
Gen 3D Graphics
API

Vulkan Cookbook: Solutions To Next Gen 3D Graphics API

Work through

Online Library

Vulkan Cookbook:

Solutions To Next

recipes to unlock
the full potential

of the next

generation

graphics

API—Vulkan About

This Book This

book explores a

wide range of

modern graphics

programming

techniques and

GPU compute

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Gen 3D Graphics
API

methods to make
the best use of
the Vulkan API

Learn techniques
that can be
applied to a wide
range of platforms
desktop,
smartphones, and
embedded devices
Get an idea on the
graphics engine
with multi-

Online Library
Vulkan Cookbook:
Solutions To Next
Gen 3D Graphics
API
platform support
and learn exciting
imaging

processing and
post-processing
techniques Who
This Book Is For
This book is ideal
for developers
who know C/C++
languages, have
some basic
familiarity with

Online Library
Vulkan Cookbook:
Solutions To Next
generation
graphics
programming, and
now want to take
advantage of the
new Vulkan API in
the process of
building next
generation
computer
graphics. Some
basic familiarity of
Vulkan would be
useful to follow

Online Library
Vulkan Cookbook:
Solutions To Next
the recipes.

OpenGL
API
developers who
want to take
advantage of the
Vulkan API will
also find this book
useful. What You
Will Learn Work
with Swapchain to
present images on
screen Create,
submit, and

Online Library

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synchronize

operations

processed by the

hardware Create

buffers and

images, manage

their memory, and

upload data to

them from CPU

Explore

descriptor sets

and set up an

interface between

Online Library

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Solutions To Next

application and
shaders Organize

drawing

operations into a

set of render

passes and

subpasses

Prepare graphics

pipelines to draw

3D scenes and

compute pipelines

to perform

mathematical

Online Library
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Gen 3D Graphics
API
calculations
Implement
geometry
projection and
tessellation,
texturing, lighting,
and post-
processing
techniques Write
shaders in GLSL
and convert them
into SPIR-V
assemblies Find

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Gen 3D Graphics
API

out about and
implement a
collection of
popular, advanced
rendering
techniques found
in games and
benchmarks In
Detail Vulkan is
the next
generation
graphics API
released by the

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API

Khronos group. It is expected to be the successor to OpenGL and OpenGL ES, which it shares some similarities with such as its cross-platform capabilities, programmed pipeline stages, or nomenclature.

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Vulkan Cookbook: Solutions To Next

Vulkan is a low-level API that gives developers much more control over the hardware, but also adds new responsibilities such as explicit memory and resources management. With it, though, Vulkan

Online Library Vulkan Cookbook: Solutions To Next

is expected to be much faster. This book is your guide to understanding Vulkan through a series of recipes. We start off by teaching you how to create instances in Vulkan and choose the device on which operations

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will be performed.

You will then

explore more

complex topics

such as command

buffers, resources

and memory

management,

pipelines, GLSL

shaders, render

passes, and more.

Gradually, the

book moves on to

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API

teach you advanced rendering techniques, how to draw 3D scenes, and how to improve the performance of your applications. By the end of the book, you will be familiar with the latest advanced

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techniques
Gen 3D Graphics
API
implemented with
the Vulkan API,
which can be used
on a wide range of
platforms. Style
and approach This
recipe-based
guide will
empower you to
implement modern
graphic
programming

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Solutions To Next
Gen 3D Graphics
API
techniques and
help gain a solid
understanding of
the new Vulkan
API.

An introduction to
the basic concepts
of 3D computer
graphics that
offers a careful
mathematical
exposition within
a modern

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Solutions To Next
Gen 3D Graphics
API
computer graphics
application
programming
interface.

Computer
graphics
technology is an
amazing success
story. Today, all
of our PCs are
capable of
producing high-
quality computer-

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Gen 3D Graphics,
API

generated images,
mostly in the form
of video games

and virtual-life

environments;

every summer

blockbuster movie

includes jaw-

dropping

computer

generated special

effects. This book

explains the

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Solutions To Next
Gen 3D Graphics
API
fundamental
concepts of 3D
computer
graphics. It
introduces the
basic algorithmic
technology
needed to produce
3D computer
graphics, and
covers such topics
as understanding
and manipulating

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API

3D geometric transformations, camera transformations, the image-rendering process, and materials and texture mapping. It also touches on advanced topics including color representations,

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Gen 3D Graphics
API

light simulation,
dealing with
geometric
representations,
and producing
animated
computer
graphics. The
book takes special
care to develop an
original exposition
that is accessible
and concise but

Online Library Vulkan Cookbook: Solutions To Next

also offers a clear
explanation of the
more difficult and

subtle

mathematical

issues. The topics

are organized

around a modern

shader-based

version of

OpenGL, a widely

used computer

graphics

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API

application programming interface that provides a real-time “ rasterization-based ” rendering environment. Each chapter concludes with exercises.

The book is suitable for a rigorous one-semester

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API

introductory
course in
computer graphics
for upper-level
undergraduates or
as a professional
reference.

Readers should be
moderately
competent
programmers and
have had some
experience with

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Gen 3D Graphics
API

linear algebra.

After mastering
the material
presented, they
will be on the path
to expertise in an
exciting and
challenging field.
A tutorial-based
approach which
will help you
understand the
practical

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API

methodologies and
deploying of Cisco
UCS components.

If you are a
professional such
as a system,
network, or
storage
administrator who
is responsible for
Cisco UCS
deployments, this
is the perfect

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book for you. You
Gen 3D Graphics
API should have some
basic knowledge

of the server ' s
architecture,
network, and
storage
technologies.

Familiarity with
virtualization
technologies is
also recommended
(though not

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Gen 3D Graphics
API
(necessary) as the
majority of real-
world UCS

deployments run
virtualized loads.
Knowledge of
Nexus OS is not
necessary as the
majority of the
management tasks
are handled in a
graphical user
interface with

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API

very few
exceptions using
the CLI.

Design and code
your own 2D and
3D games
efficiently using
OpenGL and C++
About This Book
Create 2D and 3D
games completely,
through a series
of end-to-end

Online Library
Vulkan Cookbook:
Solutions To Next
game projects

Learn to render
high performance
2D and 3D

graphics using
OpenGL

Implement a
rudimentary game
engine using step-
by-step code Who

This Book Is For
If you are a
prospective game

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API
developer with
some experience
using C++ , then
this book is for
you. Both
prospective and
experienced game
programmers will
find nuggets of
wisdom and
practical advice as
they learn to code
two full games

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Gen 3D Graphics
API
using OpenGL,
C++ , and a host
of related tools.

What You Will
Learn Set up your
development
environment in
Visual Studio
using OpenGL Use
2D and 3D
coordinate
systems
Implement an

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API

input system to
handle the mouse
and the keyboard
Create a state
machine to handle
complex changes
in the game Load,
display, and
manipulate both
2D and 3D
graphics
Implement
collision detection

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Gen 3D Graphics
API

and basic physics
Discover the key
components
needed to
complete a
polished game
Handle audio files
and implement
sound effects and
music In Detail
OpenGL is one of
the most popular
rendering SDKs

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Gen 3D Graphics
API
used to develop
games. OpenGL
has been used to
create everything
from 3D
masterpieces
running on
desktop
computers to 2D
puzzles running on
mobile devices.
You will learn to
apply both 2D and

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API

3D technologies to bring your game idea to life. There is a lot more to making a game than just drawing pictures and that is where this book is unique! It provides a complete tutorial on designing and coding games

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API

from the setup of the development environment to final credits screen, through the creation of a 2D and 3D game. The book starts off by showing you how to set up a development environment using Visual Studio, and

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Gen 3D Graphics
API
create a code
framework for
your game. It then
walks you through
creation of two
games – a 2D
platform game
called Roboracer
2D and a 3D first-
person space
shooter
game – using
OpenGL to render

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Gen 3D Graphics

API

both 2D and 3D graphics using a 2D coordinate system. You'll create sprite classes, render sprites and animation, and navigate and control the characters. You will also learn how to implement

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Gen 3D Graphics
API
input, use audio,
and code basic
collision and
physics systems.
From setting up
the development
environment to
creating the final
credits screen,
the book will take
you through the
complete journey
of creating a game

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Gen 3D Graphics
API
engine that you
can extend to
create your own
games. Style and
approach An easy-
to-follow guide
full of code
examples to
illustrate every
concept and help
you build a 2D and
3D game from
scratch, while

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learning the key tools that surround a typical OpenGL project. Do you have crud in the blood? Millions of people suffer from autoimmunity whether they know it or not. The root cause of most weight gain,

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brain and mood problems, and fatigue, autoimmunity can take years--or even decades--for symptoms and a clear diagnosis to arise. Through years of research, Dr. Tom O ' Bryan has discovered that autoimmunity

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is actually a spectrum, and many people experiencing general malaise are already on it. And while autoimmune diseases, such as Alzheimer ' s, Multiple Sclerosis, osteoporosis, diabetes, and

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Lupus, have become the third leading cause of death behind heart disease and cancer, many people affected are left in the dark. The good news is that many autoimmune conditions can be reversed through

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a targeted protocol designed to heal the autoimmune system, 70 percent of which is located in the gut. The Autoimmune Fix includes two comprehensive 3-week plans: In the first 3 weeks,

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you ' ll follow a
Paleo-inspired
diet during which
you cut out gluten,
sweets, and
dairy--the three
primary culprits
behind
autoimmunity.

Once the dietary
changes have
been addressed,
The Autoimmune

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Fix focuses on the other causes of autoimmunity such as genetics, other dietary issues, and microbiome. The Autoimmune Fix provides a practical and much-needed guide to navigating these increasingly

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common
Gen 3D Graphics
API
conditions to help
you feel better
and develop a plan
that works for
you.

26th International
Conference on
Parallel and
Distributed
Computing,
Warsaw, Poland,
August 24 – 28,
Page 50/397

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Solutions To Next
Gen 3D Graphics
API
2020, Proceedings
The Science and
Wisdom of
Optimal Prenatal
Nutrition
The Female
Advantage
A comprehensive
guide to exploring
rendering
algorithms in
modern OpenGL
and Vulkan

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API

Over 140 recipes
to take your Unity
game development

skills to the next
level, 4th Edition

Learning Vulkan

The No-Guilt

Guide to Owning

What You Want

and Organizing

Everything

Unity 2021

Cookbook is a

Page 52/397

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Vulkan Cookbook:
Solutions To Next
Gen 3D Graphics
API
*practical guide
with recipes
covering a wide
variety of Unity's
essential
features. This
new edition has
been fully
updated for Unity
2021 to help you
discover not only
the latest
features but also*

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API
modern game
development
practices.

*The FreeBSD
Handbook is a
comprehensive
FreeBSD tutorial
and reference. It
covers
installation, day-
to-day use of
FreeBSD, and
much more, such*

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Gen 3D Graphics
API
*as the Ports
collection,
creating a custom
kernel, security
topics, the X
Window System,
how to use
FreeBSD's Linux
binary
compatibility, and
how to upgrade
your system from
source using the*

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Gen 3D Graphics
API
'make world'
command, to
name a few.

*Increase speed
and performance
of your
applications with
efficient data
structures and
algorithms About
This Book See
how to use data
structures such*

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Gen 3D Graphics

API

*as arrays, stacks,
trees, lists, and
graphs through
real-world*

examples Find

out about

important and

advanced data

structures such

as searching and

sorting algorithms

Understand

important

Online Library
Vulkan Cookbook:
Solutions To Next

*concepts such as
big-o notation,
dynamic*

*programming,
and functional*

data structured

Who This Book Is

For This book is

for R developers

who want to use

data structures

efficiently. Basic

knowledge of R is

Online Library
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Solutions To Next
Gen 3D Graphics
API

*expected. What
You Will Learn
Understand the
rationality behind
data structures
and algorithms
Understand
computation
evaluation of a
program
featuring
asymptotic and
empirical*

Online Library
Vulkan Cookbook:
Solutions To Next
Gen 3D Graphics
API
algorithm
analysis Get to
know the
fundamentals of
arrays and linked-
based data
structures
Analyze types of
sorting algorithms
Search algorithms
along with
hashing
Understand linear

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and tree-based indexing Be able to implement a graph including topological sort, shortest path problem, and Prim's algorithm Understand dynamic programming (Knapsack) and randomized

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Gen 3D Graphics
API
*algorithms In
Detail In this
book, we cover
not only classical
data structures,
but also
functional data
structures. We
begin by
answering the
fundamental
question: why
data structures?*

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Gen 3D Graphics
API

We then move on to cover the relationship between data structures and algorithms, followed by an analysis and evaluation of algorithms. We introduce the fundamentals of data structures,

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*such as lists,
stacks, queues,
and dictionaries,
using real-world
examples. We
also cover topics
such as indexing,
sorting, and
searching in
depth. Later on,
you will be
exposed to
advanced topics*

Online Library
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Solutions To Next
Gen 3D Graphics
API
*such as graph
data structures,
dynamic
programming,
and randomized
algorithms. You
will come to
appreciate the
intricacies of high
performance and
scalable
programming
using R. We also*

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cover special R data structures such as vectors, data frames, and atomic vectors. With this easy-to-read book, you will be able to understand the power of linked lists, double linked lists, and circular linked

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*Gen 3D Graphics
API*
*lists. We will also
explore the
application of
binary search and
will go in depth
into sorting
algorithms such
as bubble sort,
selection sort,
insertion sort, and
merge sort. Style
and approach
This easy-to-read*

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API

book with its fast-paced nature will improve the productivity of an R programmer and improve the performance of R applications. It is packed with real-world examples. Thoroughly revised, this third edition focuses on

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modern techniques used to generate synthetic three-dimensional images in a fraction of a second. With the advent of programmable shaders, a wide variety of new algorithms have

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Gen 3D Graphics
API
*arisen and
evolved over the
past few years.*

*This edition
discusses current,
practical
rendering
methods used in
games and other
applications. It
also presents a
solid theoretical
framework and*

Online Library
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relevant
Gen 3D Graphics
API
mathematics for
the field of
interactive
computer
graphics, all in an
approachable
style. The authors
have made the
figures used in
the book
available for
download for fair

Online Library
Vulkan Cookbook:
Solutions To Next
use.:Download
Gen 3D Graphics
API
Figures. Reviews
Rendering has
been a required
reference for
professional
graphics
practitioners for
nearly a decade.
This latest edition
is as relevant as
ever, covering
topics from

Online Library
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Gen 3D Graphics
API
*essential
mathematical
foundations to
advanced
techniques used
by today's cutting
edge games. --
Gabe Newell,
President, Valve,
May 2008
Rendering ... has
been completely
revised and*

Online Library
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Gen 3D Graphics
API
*revamped for its
updated third
edition, which
focuses on
modern
techniques used
to generate three-
dimensional
images in a
fraction of the
time old
processes took.
From practical*

Online Library
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*rendering for
games to math
and details for
better interactive
applications, it's
not to be missed.*

*-- The Bookwatch,
November 2008*

*You'll get
brilliantly lucid
explanations of
concepts like
vertex morphing*

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Gen 3D Graphics
API
*and variance
shadow
mapping—as well
as a new respect
for the incredible
craftsmanship
that goes into
today's PC
games. -- Logan
Decker, PC
Gamer Magazine ,
February 2009
Computer*

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API

*Graphics from
Scratch
demystifies the
algorithms used
in modern
graphics software
and guides
beginners
through building
photorealistic 3D
renders.*

*Computer
graphics*

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Gen 3D Graphics
API
*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*

Online Library
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*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*

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API

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.

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API

*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*

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*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

Online Library

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*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

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Gen 3D Graphics
API
graphics engineer
or a novice

programmer

curious about

how graphics

algorithms work,

Gabriel

Gambetta's

simple, clear

explanations will

quickly put

computer

graphics concepts

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Gen 3D Graphics
API
*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.*

*A practical guide
to cross-platform
AR development*

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Gen 3D Graphics
API
*with Unity 2020
and later versions*
Introduction to
Computer
Graphics and the
Vulkan API
Real-Time
Rendering, Fourth
Edition
The Home Edit
Workbook
A Programmer's
Introduction to 3D

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Solutions To Next
Gen 3D Graphics
API
*Rendering
Full Stack
AngularJS for Java
Developers
Third Edition*

A pragmatic
recipe book
for acquiring
a
comprehensive
understanding
of the

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Gen 3D Graphics
API
complexities
and core
fundamentals
of C++
programming
Key Features
Explore the
latest
language and
library
features of
C++20 such as

Online Library
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Solutions To Next
modules,
Gen 3D Graphics
coroutines,
API
concepts, and
rangesShed new
light on the
core concepts
in C++
programming,
including
functions,
algorithms,
threading, and

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concurrency,

Gen 3D Graphics

through

API

practical self-

contained reci-

pesLeverage

C++ features

like smart

pointers, move

semantics,

constexpr, and

more for

increased

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robustness and

performance Boo

API

k Description

C++ has come a

long way to be

one of the

most widely

used general-

purpose

languages that

is fast,

efficient, and

Online Library
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Solutions To Next
high-
Gen 3D Graphics
API
performance at
its core. The
updated second
edition of
Modern C++
Programming
Cookbook
addresses the
latest
features of
C++20, such as

Online Library
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Solutions To Next
modules,
Gen 3D Graphics
concepts,
API
coroutines,
and the many
additions to
the standard
library,
including
ranges and
text
formatting.
The book is

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organized in
Gen 3D Graphics
API
the form of
practical
recipes
covering a
wide range of
problems faced
by modern
developers.

The book also
delves into
the details of

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Solutions To Next
Gen 3D Graphics
API

all the core
concepts in
modern C++
programming,
such as
functions and
classes,
iterators and
algorithms,
streams and
the file
system,

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Gen 3D Graphics
API
threading and
concurrency,
smart pointers
and move
semantics, and
many others.
It goes into
the
performance
aspects of
programming in
depth,

Online Library
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Solutions To Next
teaching
Gen 3D Graphics
API
developers how
to write fast
and lean code
with the help
of best
practices.
Furthermore,
the book
explores
useful
patterns and

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delves into
the
implementation
of many
idioms,
including
pimpl, named
parameter, and
attorney-
client,
teaching
techniques

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such as

Gen 3D Graphics

avoiding

API

repetition

with the

factory

pattern. There

is also a

chapter

dedicated to

unit testing,

where you are

introduced to

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three of the
most widely
used libraries

for C++:

Boost.Test,
Google Test,
and Catch2. By
the end of the
book, you will
be able to
effectively
leverage the

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C++11/14/17/20

programming to
enhance the
performance,
scalability,
and efficiency
of your
applications.
What you will
learnUnderstan

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d the new
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C++20 language
API
and library
features and
the problems
they
solveBecome
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support for
threading and

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text searching
and

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different
types of
strings and
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aspects of com
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advantage of

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idiomsExplore
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frameworks for

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The book is
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programmers
who have a
basic
knowledge of
C++ and want

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to master the
language and
become

prolific
modern C++
developers.
Experienced
C++
programmers
can leverage
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strengthen

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their command
of C++ and
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reference to
many language
and library
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3D datasets
for many
common

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and 3D
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including the
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stunning
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platforms
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primitives to
plot 2-D

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3D volumetric
datasets with
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such as data
slicers and
multiple
viewpoint
projection

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video see-
through

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OpenGL is a
great multi-
platform, cros-
s-language,
and hardware-
accelerated
graphics
interface for
visualizing
large 2D and

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Gen 3D Graphics
Data
API
visualization

has become
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challenging
using
conventional
approaches as
datasets
become larger
and larger,

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especially
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in real time
for a wide
range of

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tutorials to
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appealing
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visualization

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tools with
minimal
development
time. We will
first
illustrate how
to quickly set
up the
development
environment in
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Linux. Next,
Gen 3D Graphics
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we will
demonstrate
how to
visualize data
for a wide
range of
applications
using OpenGL,
starting from
simple 2D
datasets to

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increasingly
Gen 3D Graphics
API
complex 3D
datasets with

more advanced
techniques.

Each chapter
addresses
different
visualization
problems
encountered in
real life and

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introduces the
relevant
API
OpenGL

features and
libraries in a
modular
fashion. By
the end of
this book, you
will be
equipped with
the essential

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skills to
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range of
impressive
OpenGL-based
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needs, on
platforms
ranging from

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and approach

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is explained

in a step-by-

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Vulkan, has
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giving
applications
direct control
over GPU
acceleration
for
unprecedented

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performance
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author
introduces
Vulkan, its
goals, and the
key concepts

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API, and
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system that
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both Vulkan's
uniqueness and
its
exceptional
power. You'll

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coverage of
topics ranging
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shaders. The
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especially
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API
handle tasks
such as synchr
onization,
scheduling,
and memory
management
that are now
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imaging, and s
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challenging
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problems.

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rendering
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multi-pass
architecture

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and multiple
processing
queues

Appendixes
presenting
Vulkan
functions and
SPIR-V
opcodes, as
well as a
complete
Vulkan

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glossary

Example code

can be found

here: Example

code can be

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amples

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Naughty Dog to
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the theory and
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software
development.
In this book,
the broad
range of
technologies

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and techniques
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used by AAA
API
game studios
are each
explained in
detail, and
their roles
within a real
industrial-
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engine are
illustrated.

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along with
updated
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compiler
optimizations,
C++ language s
tandardization
, the IEEE-754

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representation
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parallelism
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This book is

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serve as an
introductory
text, but it
also offers
the
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game
programmer a
useful
perspective on
aspects of

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Gen 3D Graphics
development
API
technology
with which
they may not
have deep
experience. As
always,
copious
references and
citations are
provided in

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this edition,
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API
making it an
excellent
jumping off
point for
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to dig deeper
into any
particular
aspect of the
game
development

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image and
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resources Get
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it offers
great

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graphics run
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hardware
requirements.
We begin with
a brief
introduction
to the Vulkan
system and

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show you its
distinct
features with
the successor
to the OpenGL
API. First,
you will see
how to
establish a
connection
with hardware
devices to

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query the
available
queues, memory
types, and
capabilities
offered.

Vulkan is
verbose, so
before diving
deep into
programing,
you'll get to

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grips with
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debugging
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overcome error
traps using
Vulkan's layer
and extension
features.

You'll get a
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command buffers and acquire the knowledge to record various operation commands into command buffer and submit it to a proper queue for GPU processing.

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you'll define
the drawing
operations as
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Render pass
with the help
of attachments
and subpasses.
You'll also
create frame

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buffers and
build a solid
graphics

pipeline, as
well as making
use of the
synchronizing
mechanism to
manage GPU and
CPU hand-
shaking. By
the end,

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need to know
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with the
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and you will
get to build
an application
throughout the
course of the
book. Since
you are

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makes it possible to
build a new
generation of 3D web***

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mathematics, or
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examples, building
your skills as you
move from simple to*

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plus 100*

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animating, and
texturing triangles,
all the way to
advanced techniques
such as fogging,
shadowing, shader*

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*switching, and
displaying 3D models
generated by Blender
or other authoring
tools. This book
won't just teach you
WebGL best
practices, it will give
you a library of code
to jumpstart your own
projects. Coverage
includes: • WebGL's
origin, core concepts,*

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(GLSL ES) • 3D
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Gen 3D Graphics
API
*shader switching, and
more • Valuable
reference appendixes
covering key issues
ranging from
coordinate systems to
matrices and shader
loading to web
browser settings This
is the newest text in
the OpenGL
Technical Library,
Addison-Wesley's*

Online Library
Vulkan Cookbook:
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API

*definitive collection
of programming
guides an reference
manuals for OpenGL
and its related
technologies. The
Library enables
programmers to gain
a practical
understanding of
OpenGL and the
other Khronos applic
ation-programming*

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API

***libraries including
OpenGL ES and
OpenCL. All of the
technologies in the
OpenGL Technical
Library evolve under
the auspices of the
Khronos Group, the
industry consortium
guiding the evolution
of modern, open-
standards media
APIs.***

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API

***Get Started Fast with
Modern OpenGL ES
Graphics***

***Programming for
iPhone, iPod touch,
and iPad OpenGL ES
technology underlies
the user interface and
graphical capabilities
of Apple's iPhone,
iPod touch, and
iPad—as well as
devices ranging from***

Online Library
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API
*video-game consoles
and aircraft-cockpit
displays to non-Apple
smartphones. In this
friendly, thorough
introduction, Erik M.
Buck shows how to
make the most of
Open GL ES in
Apple's iOS
environment. This
highly anticipated
title focuses on*

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API

*modern, efficient
approaches that use
the newest versions of
OpenGL ES, helping
you avoid the
irrelevant, obsolete,
and misleading
techniques that litter
the Internet. Buck
embraces Objective-C
and Cocoa Touch,
showing how to
leverage Apple's*

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API
*powerful, elegant
GLKit framework to
maximize your
productivity, achieve
tight platform
integration, and
deliver exceptionally
polished apps. If
you've written C or
C++ code and know
object-oriented
programming basics,
this title brings*

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API
*together everything
you need to fully
master OpenGL ES
graphics for
iOS—including
downloadable
examples specifically
designed to jumpstart
your own projects.
Coverage includes •
Understanding core
OpenGL ES
computer graphics*

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Solutions To Next
*concepts and iOS
graphics architecture*

*• Integrating Cocoa
Touch with OpenGL
ES to leverage the
power of Apple's
platform • Creating
textures from start to
finish: opacity,
blending, multi-
texturing, and
compression •
Simulating ambient,*

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Gen 3D Graphics
API

*diffuse, and specular
light • Using
transformations to
render 3D geometric
objects from any
point of view •*

*Animating scenes by
controlling time
through application
logic • Partitioning
data to draw
expansive outdoor
scenes with rolling*

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Gen 3D Graphics
API

*terrain • Detecting
and handling user
interaction with 3D*

geometry •

*Implementing special
effects ranging from
skyboxes to particles
and billboards •*

*Systematically
optimizing graphics
performance •*

*Understanding the
essential linear*

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Gen 3D Graphics
API
*algebra concepts used
in computer graphics*

- *Designing and
constructing a
complete simulation
that incorporates
everything you've
learned
Build a 3D rendering
engine from scratch
while solving
problems in a step-by-
step way with the help*

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Vulkan Cookbook:
Solutions To Next
Gen 3D Graphics
API
*of useful recipes Key
Features Learn to
integrate modern
rendering techniques
into a single
performant 3D
rendering
engine Leverage
Vulkan to render 3D
content, use AZDO in
OpenGL applications,
and understand
modern real-time*

Online Library
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Solutions To Next
rendering
Gen 3D Graphics
methods Implement a
API
physically based
rendering pipeline
from scratch in
Vulkan and
OpenGLBook
Description OpenGL
is a popular cross-
language, cross-
platform application
programming
interface (API) used

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Gen 3D Graphics
API
*for rendering 2D and
3D graphics, while
Vulkan is a low-
overhead, cross-
platform 3D graphics
API that targets high-
performance
applications. 3D
Graphics Rendering
Cookbook helps you
learn about modern
graphics rendering
algorithms and*

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Vulkan Cookbook:
Solutions To Next
Gen 3D Graphics
API
*techniques using C++
programming along
with OpenGL and
Vulkan APIs. The
book begins by setting
up a development
environment and
takes you through the
steps involved in
building a 3D
rendering engine with
the help of basic, yet
self-contained,*

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Solutions To Next

recipes. Each recipe will enable you to incrementally add features to your codebase and show you how to integrate different 3D rendering techniques and algorithms into one large project. You'll also get to grips with core techniques such as

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Gen 3D Graphics
API

*physically based
rendering, image-
based rendering, and
CPU/GPU geometry
culling, to name a
few. As you advance,
you'll explore
common techniques
and solutions that will
help you to work with
large datasets for 2D
and 3D rendering.*

Finally, you'll

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Solutions To Next
Gen 3D Graphics
API
*discover how to apply
optimization
techniques to build
performant and
feature-rich graphics
applications. By the
end of this 3D
rendering book, you'll
have gained an
improved
understanding of best
practices used in
modern graphics*

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API

*APIs and be able to
create fast and
versatile 3D
rendering
frameworks. What
you will learn
Improve
the performance of
legacy OpenGL
applications
Manage a
substantial amount of
content in real-time
3D rendering
engines
Discover how*

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Gen 3D Graphics
API
*to debug and profile
graphics applications*
*Understand how to
use the Approaching
Zero Driver Overhead
(AZDO) philosophy
in OpenGLIntegrate
various rendering
techniques into a
single
applicationFind out
how to develop
Vulkan applicationsI*

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Solutions To Next
Gen 3D Graphics
API

*implement a
physically based
rendering pipeline
from scratch*

*Integrate
a physics library with
your rendering
engine*

*Who this book
is for This book is for
3D graphics
developers who are
familiar with the
mathematical
fundamentals of 3D*

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Gen 3D Graphics
API
*rendering and want to
gain expertise in
writing fast rendering
engines with
advanced techniques
using C++ libraries
and APIs. A solid
understanding of C++
and basic linear
algebra, as well as
experience in
creating custom 3D
applications without*

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*using premade
rendering engines is
required.*

*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*

Online Library
Vulkan Cookbook:
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Gen 3D Graphics
API
*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*

Online Library
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Solutions To Next
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*

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API

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

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Gen 3D Graphics
API
*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*

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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

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Gen 3D Graphics
API

*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*

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API
*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*

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API
*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*

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monetization
Gen 3D Graphics
API
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

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API

*Swift, then this book
is for you. No prior
game development or
experience with Apple
ecosystem is needed.*

**COMPREHENSIVE
COVERAGE OF
SHADERS AND
THE
PROGRAMMABLE
PIPELINE** *From
geometric primitives
to animation to 3D*

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Gen 3D Graphics
API
*modeling to lighting,
shading and
texturing, Computer
Graphics Through
OpenGL®: From
Theory to
Experiments is a
comprehensive
introduction to
computer graphics
which uses an active
learning style to teach
key concepts. Equally*

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API

*emphasizing theory
and practice, the book
provides an
understanding not
only of the principles
of 3D computer
graphics, but also the
use of the OpenGL®
Application
Programming
Interface (API) to
code 3D scenes and
animation, including*

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games and movies.

*The undergraduate
core of the book takes
the student from zero
knowledge of
computer graphics to
a mastery of the
fundamental concepts
with the ability to
code applications
using fourth-
generation*

OpenGL®. The
Page 235/397

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API

*remaining chapters
explore more
advanced topics,
including the
structure of curves
and surfaces,
applications of
projective spaces and
transformations and
the implementation of
graphics pipelines.
This book can be
used for introductory*

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API

*undergraduate
computer graphics
courses over one to
two semesters. The
careful exposition
style attempting to
explain each concept
in the simplest terms
possible should
appeal to the self-
study student as well.
Features • Covers the
foundations of 3D*

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Solutions To Next
computer graphics,
Gen 3D Graphics
including animation,
API
visual techniques and
3D modeling •
Comprehensive
coverage of
OpenGL® 4.x,
including the GLSL
and vertex, fragment,
tessellation and
geometry shaders •
Includes 180
programs with 270

Online Library
Vulkan Cookbook:
Solutions To Next
Gen 3D Graphics
API
*experiments based on
them • Contains 750
exercises, 110 worked
examples, and 700
four-color
illustrations •
Requires no previous
knowledge of
computer graphics •
Balances theory with
programming
practice using a
hands-on interactive*

Online Library
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Solutions To Next
Gen 3D Graphics
API
*approach to explain
the underlying
concepts*

C++ Game

Development By

Example

Straightforward Pre-

Intermediate

From Theory to

Experiments

Augmented Reality

with Unity AR

Foundation

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API

Swift Game

Development

Computer Graphics

Through OpenGL®

Beginner's guide to

3D rendering and

game development

with OpenGL and

C++

This book

constitutes the

proceedings of the

26th International

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***Conference on
Parallel and
Distributed
Computing, Euro-
Par 2020, held in
Warsaw, Poland, in
August 2020. The
conference was
held virtually due
to the coronavirus
pandemic. The 39
full papers
presented in this***

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***volume were
carefully reviewed
and selected from
158 submissions.
They deal with
parallel and
distributed
computing in
general, focusing
on support tools
and environments;
performance and
power modeling,***

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***prediction and
evaluation;
scheduling and
load balancing;
high performance
architectures and
compilers; data
management,
analytics and
machine learning;
cluster, cloud and
edge computing;
theory and***

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***algorithms for
parallel and
distributed
processing;
parallel and
distributed
programming,
interfaces, and
languages;
multicore and
manycore
parallelism;
parallel numerical***

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Gen 3D Graphics
API
**methods and
applications; and
accelerator
computing.
A step-by-step
instructional guide
to understanding
the fundamentals
of game
development with
OpenGL. Right
from the setup to
the important**

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***features, we'll get
a better
understanding of
games and the
engines behind
them. Key
Features Learn the
basics of drawing
along with
fundamentals of
shading to create
amazing objects.
Get in-depth***

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API

***knowledge of
lighting and
materials to make
realistic objects.
Understand the
fundamentals of
model loading and
cube mapping.
Book Description
Learn OpenGL is
your one-stop
reference guide to
get started with***

Online Library
Vulkan Cookbook:
Solutions To Next
Gen 3D Graphics
API

**OpenGL and C++
for game
development.**

***From setting up
the development
environment to
getting started
with basics of
drawing and
shaders, along
with concepts
such as lighting,
model loading, and***

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API

cube mapping, this book will get you up to speed with the fundamentals.

You begin by setting up your development environment to use OpenGL on Windows and macOS. With GLFW and GLEW set up using

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***absolute and
relative linking
done, you are
ready to setup SDL
and SFML for both
the operating
systems. Now that
your development
environment is set
up, you'll learn to
draw using simple
shaders as well as
make the shader***

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***more adaptable
and reusable. Then
we move on to
more advanced
topics like
texturing your
objects with
images and
transforming your
objects using
translate, rotate
and scale. With
these concepts***

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***covered, we'll
move on to topics
like lighting to
enable you to
incorporate
amazing dynamic
lights in your
game world. By
the end of the
book, you'll learn
about model
loading, right from
setting up ASSIMP***

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Gen 3D Graphics
API
***to learning about
the model class
and loading a
model in your
game***

***environment. We
will conclude by
understanding
cube mapping to
bring advance
worlds to your
game. What you
will learn***

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Gen 3D Graphics
API

***GLFW and GLEW
on Windows and
macOS with
absolute, relative
Linking Set up
SDL and SFML on
your system using
absolute and
relative Linking
Draw using the
simple shaders
Create a camera
and learn to***

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API
***populate your
game world with
objects Learn
about color and
lighting concepts
to create an
amazing game
world Understand
model loading and
cube mapping to
advance your
game Who this
book is for This***

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***book is targeted
towards anyone
and everyone who
is interested in
creating games,
learning how game
engines work and
most importantly
for anyone who is
interested in
learning OpenGL.
The ideal reader
for this book***

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**would be anyone
with a passion for
learning game
development or
looking out for an
OpenGL reference
guide. The skills
that you'll learn in
this book will be
applicable to all
your game
development
needs. You'll**

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Vulkan Cookbook:
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API
***require a strong
foundation in C++
to understand and
apply the concepts
of this book.***

***Master the skills
you need to
develop portable,
highly-functional
Android
applications using
NDK About This
Book Develop***

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API

***portable games
using Android
NDK and debug
them on your
desktop
Familiarise
yourself with
different popular
C++ libraries on
Android and use
them in your
games Write multi-
threaded code with***

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API
**graphics, sound,
networking, and
resource storage**

Who This Book Is

**For If you want to
leverage your C++
skills in mobile
development and
increase the**

**performance of
your Android
applications, then
this is the book for**

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***you. Knowledge of
C or C++ is
assumed,
including pointer
manipulation,
multi-threading,
object-oriented
programming
concepts, and the
basics of C++11. It
would be an added
advantage if you
know how to***

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API
**develop
applications
without any IDE.
What You Will
LearnWhat You
Will Learn Explore
popular C++
libraries and use
them on Android
Write portable,
multithreaded
native networking
code Create**

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Gen 3D Graphics
API
**portable audio
framework using
OpenAL
Implement
portable rendering
framework using
OpenGL ES 3
Debug mobile
applications on
your desktop
machine Access
resources from
APK archives**

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API

***Render text with
FreeType In Detail
Android NDK is***

***used for
multimedia
applications that
require direct
access to system
resources. NDK is
also the key for
portability, which
in turn allows a
reasonably***

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Gen 3D Graphics
API

***comfortable
development and
debugging
process using
familiar tools such
as GCC and Clang
toolchains. This is
a hands-on guide
to extending your
game development
skills with Android
NDK. The book
takes you through***

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API

many clear, step-by-step example applications to help you further explore the features of Android NDK and some popular C++ libraries and boost your productivity by debugging the development process. Through

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the course of this book, you will learn how to write portable multi-threaded native code, use HTTP networking in C++, play audio files, use OpenGL ES 3, and render high-quality text. Each chapter aims to take you one step

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API

closer to building your application. By the end of this book, you will be able to create an engaging, complete gaming application. Style and approach This book adopts a step-by-step approach and each chapter is based on the

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API

material from the previous ones. The book focuses on putting to your knowledge of C++ use while you develop Android applications of your own.

A complete guide to designing and building fun games with Qt and

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***Qt Quick using
associated
toolsets Key
Features A step by
step guide to learn
Qt by building
simple yet
entertaining
games Get
acquainted with a
small yet powerful
addition—Qt
Gamepad Module,***

Online Library
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API
***that enables Qt
applications to
support the use of
gamepad hardware
Understand
technologies such
as QML, OpenGL,
and Qt Creator to
design intuitive
games Book
Description Qt is
the leading cross-
platform toolkit for***

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API

***all significant
desktop, mobile,
and embedded
platforms and is
becoming popular
by the day,
especially on
mobile and
embedded
devices. It's a
powerful tool that
perfectly fits the
needs of game***

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developers. This book will help you learn the basics of Qt and will equip you with the necessary toolsets to build apps and games. The book begins by how to create an application and prepare a working environment for

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Gen 3D Graphics

API

both desktop and mobile platforms.

You will learn how

to use built-in Qt

widgets and Form

Editor to create a

GUI application

and then learn the

basics of creating

graphical

interfaces and Qt's

core concepts.

Further, you'll

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***learn to enrich
your games by
implementing
network
connectivity and
employing
scripting. You will
learn about Qt's
capabilities for
handling strings
and files, data
storage, and
serialization.***

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Gen 3D Graphics
API

***Moving on, you
will learn about the
new Qt Gamepad
module and how to
add it in your
game and then
delve into OpenGL
and Vulkan, and
how it can be used
in Qt applications
to implement hard
ware-accelerated
2D and 3D***

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Gen 3D Graphics
API

graphics. You will then explore various facets of Qt Quick: how it can be used in games to add game logic, add game physics, and build astonishing UIs for your games. By the end of this book, you will have

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***developed the
skillset to develop
interesting games
with Qt. What you
will learn Install
the latest version
of Qt on your
system***

***Understand the
basic concepts of
every Qt game and
application***

Develop 2D object-

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Vulkan Cookbook:
Solutions To Next
Gen 3D Graphics
API
***oriented graphics
using Qt Graphics
View Build
multiplayer games
or add a chat
function to your
games with Qt
Network module
Script your game
with Qt QML
Explore the Qt
Gamepad module
in order to***

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Gen 3D Graphics

API

integrate gamepad support in C++ and QML applications

Program resolution

n-independent and

fluid UIs using

QML and Qt Quick

Control your game

flow in line with

mobile device

sensors Test and

debug your game

easily with Qt

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Creator and Qt

Test Who this

book is for If you

want to create

great graphical

user interfaces

and astonishing

games with Qt,

this book is ideal

for you. No

previous

knowledge of Qt is

required; however

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Gen 3D Graphics
API

***knowledge of C++
is mandatory.***

***This new edition
provides step-by-
step instruction on
modern 3D
graphics shader
programming in
OpenGL with C++,
along with its
theoretical
foundations. It is
appropriate both***

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Vulkan Cookbook:

Solutions To Next

Gen 3D Graphics
API

***for computer
science graphics
courses and for
professionals
interested in
mastering 3D
graphics skills. It
has been designed
in a 4-color, “teach-
yourself” format
with numerous
examples that the
reader can run just***

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Solutions To Next
as presented.

**Every shader
stage is explored,
from the basics of
modeling,
textures, lighting,
shadows, etc.,
through advanced
techniques such
as tessellation,
normal mapping,
noise maps, as
well as new**

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**chapters on
simulating water,
stereoscopy, and
ray tracing.**

FEATURES:

**Covers modern
OpenGL 4.0+
shader
programming in
C++, with
instructions for
both PC/Windows
and Macintosh**

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API

Adds new chapters on simulating water, stereoscopy, and ray tracing

Includes companion files with code, object models, figures, and more (also available for downloading by writing to the

Online Library
Vulkan Cookbook:
Solutions To Next
publisher)
Illustrates every
technique with
running code
examples.

Everything needed
to install the
libraries, and
complete source
code for each
example Includes
step-by-step
instruction for

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API
**using each GLSL
programmable
pipeline stage
(vertex,
tessellation,
geometry, and
fragment) Explores
practical examples
for modeling,
lighting, and
shadows
(including soft
shadows), terrain,**

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water, and 3D
Gen 3D Graphics
API
materials such as
wood and marble
Explains how to
optimize code for
tools such as
Nvidia's Nsight
debugger.
Real Food for
Pregnancy
Vulkan
Programming
Guide

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API

Learn IOS 12

Game

Development

Using SpriteKit,

SceneKit and

ARKit 2. 0, 3rd

Edition

OpenGL Data

Visualization

Cookbook

A Hands-on Guide

to Modern 3D

Graphics

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API

***Programming
Vulkan Cookbook
A Field Guide to***

***Curiosity,
Creativity, and
Tomfoolery***

Thoroughly updated, this fourth edition focuses on modern techniques used to generate synthetic three-dimensional images

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in a fraction of a second. With the advent of programmable shaders, a wide variety of new algorithms have arisen and evolved over the past few years. This edition discusses current, practical rendering methods used in

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API

games and o
Based on the New
York Times
bestsellers The
Home Edit and The
Home Edit Life,
this practical
workbook is the
essential,
hardworking
companion.

Organize and
maintain your

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API
living spaces with
52 challenges for
tackling every
corner of the
home...

This updated
bestseller provides
an introduction to
programming
interactive
computer graphics,
with an emphasis
on game

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development using DirectX 12. The book is divided into three main parts: basic mathematical tools, fundamental tasks in Direct3D, and techniques and special effects. It shows how to use new Direct12 features such as command lists,

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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

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API
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

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API
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.

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Provides an

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Gen 3D Graphics
API
introduction to
programming
interactive

computer graphics,
with an emphasis
on game
development using
DirectX 12 • Uses
new Direct3D 12
features to reduce
CPU overhead and
take advantage of
multiple CPU cores

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- 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,

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real-time
Gen 3D Graphics
API
reflections, normal
and displacement
mapping, shadow
rendering,
programming the
geometry shader,
and character
animation • Covers
a mathematics
review and 3D
rendering
fundamentals such

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as lighting,
texturing, blending
and stenciling •

Use the end-of-
chapter exercises
to test

understanding and
provide experience
with DirectX 12

For ease of use and
practicality

Straightforward

Second Edition is

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structured to provide one lesson per double-page spread (A/B/C/D), lasting around 90 minutes. All lessons are interlinked to promote better and more memorable learning, but there is the flexibility to pick out certain key sections to focus on

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certain language points.

Prenatal nutrition can be confusing. A lot of the advice you have been given about what to eat (or what not to eat) is well-meaning, but frankly, outdated or not evidenced-based. In Real Food

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API

for Pregnancy, you
will get clear
answers on what to
eat and why, with
research to back up
every
recommendation.
Author and
specialist in
prenatal nutrition,
Lily Nichols, RDN,
CDE, has taken a
long and hard look

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API

at the science and discovered a wide gap between current prenatal nutrition recommendations and what foods are required for optimal health in pregnancy and for your baby's development. There has never been a

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more

comprehensive and
well-referenced

resource on

prenatal nutrition.

With Real Food for
Pregnancy as your
guide, you can be
confident that your
food and lifestyle
choices support a
smooth, healthy
pregnancy.

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OpenGL Game
Development By
Example
The Home Edit Life
R Data Structures
and Algorithms
Learn Modern
OpenGL Graphics
Programming in a
Step-by-step

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Fashion.
Gen 3D Graphics
API
Foundations of 3D
Computer Graphics
Unity 2021
Cookbook

Introduction
to Computer
Graphics with
the Vulkan API
provides a
beginners
guide to

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Gen 3D Graphics
API

getting
started
developing
graphical
applications.
The book
focuses on the
practical
aspects with
details
regarding
technical

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API
changes to
previous
generation

approaches,
such as, the
shift towards
more efficient
multithreaded
solutions. The
book has been
formatted and
designed with

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API
sample program
listings and
support

material, so
whether or not
you are
currently an
expert in
computer
graphics,
actively
working with

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an existing
Gen 3D Graphics
API (OpenGL or
API
DirectX), or

completely in
the dark about
this

mysterious
topic, this
book has

something for
you. If you're
an experienced

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developer,
you'll find

this book a

light

refresher to

the subject,

and if you're

deciding

whether or not

to delve into

graphics and

the Vulkan

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API, this book
may help you
make that

significant
decision.

Explore the
world of
augmented
reality
development
with the
latest

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features of
Gen 3D Graphics
Unity and step-
API
by-step

tutorial-style

examples with

easy-to-

understand

explanations

Key

FeaturesBuild

functional and

interactive

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augmented
Gen 3D Graphics
reality
API
applications
using the
Unity 3D game
engineLearn to
use Unity's XR
and AR
components,
including AR
Foundation and
other standard

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Unity features
Gen 3D Graphics
Implement
API
Common AR
application
user
experiences
needed to
build engaging
applicationsBo
ok Description
Augmented
reality

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Solutions To Next
Gen 3D Graphics
API
applications
allow people
to interact
meaningfully
with the real
world through
digitally
enhanced
content. The
book starts by
helping you
set up for AR

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Solutions To Next
development,
Gen 3D Graphics
installing the
API
Unity 3D game
engine,
required
packages, and
other tools to
develop for
Android
(ARCore)
and/or iOS
(ARKit) mobile

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devices. Then

we jump right

into the

building and

running AR

scenes,

learning about

AR Foundation

components,

other Unity

features, C#

coding, troubleshoot

and more.

Unity

AR

Foundation

API

Online Library
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Solutions To Next
Gen 3D Graphics
API
eshooting, and
testing. We
create a
framework for
building AR
applications
that manages
user
interaction
modes, user
interface
panels, and AR

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onboarding
Gen 3D Graphics
API
graphics that
you will save
as a template
for reuse in
other projects
in this book.

Using this
framework, you
will build
multiple
projects,

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starting with
Gen 3D Graphics
API
a virtual
photo gallery
that lets you
place your
favorite
framed photos
on your real-
world walls,
and
interactively
edit these

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virtual
objects. Other
projects

include an
educational
image tracking
app for
exploring the
solar system,
and a fun
selfie app to
put masks and

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accessories on
Gen 3D Graphics
your face. The
API
book provides
practical
advice and
best practices
that will have
you up and
running
quickly. By
the end of
this AR book,

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you will be
able to build
your own AR
applications,
engaging your
users in new
and innovative
ways. What you
will

learnDiscover
Unity engine
features for

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building AR
Gen 3D Graphics
API applications
and gamesGet
up to speed
with Unity AR
Foundation
components and
the Unity
APIBuild a
variety of AR
projects using
best practices

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API
and important
AR user experi
encesUnderstan
d the core
concepts of
augmented
reality
technology and
development
for real-world
projectsSet up
your system

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API
for AR
development
and learn to
improve your
development
workflow
Create
an AR user
framework with
interaction
modes and UI,
saved as a
template for

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new

Gen 3D Graphics

projectsWho

API

this book is

for This

augmented

reality book

is for game

developers

interested in

adding AR

capabilities

to their games

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and apps. The
Gen 3D Graphics
API
book assumes
beginner-level
knowledge of
Unity
development
and C#
programming,
familiarity
with 3D
graphics, and
experience in

Online Library

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using existing
AR

API
applications.

Beginner-level

experience in

developing

mobile

applications

will be

helpful to get

the most out

of this AR

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Unity book.

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TIMES

BESTSELLER

From the

YouTube

superstars and

creators of

Good Mythical

Morning comes

the ultimate

guide to

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living a
Gen 3D Graphics
“Mythical”
API

life,
featuring
stories and
photos from
their lifelong
friendship, as
well as
awesomely
illustrated
guides,

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charts, and
activities

aimed at

laughing more,

learning more,

and never

taking

yourself too

seriously.

Thanks for

reading this

description.

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API

You're obviously a curious person, which means you've already taken your first step towards achieving Mythicality. Lucky for you, opening this

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book is even
Gen 3D Graphics
API
more rewarding
than reading

about it

online. Within
its pages,

you'll

discover

twenty ways to
fill your life

with

curiosity,

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creativity,
Gen 3D Graphics
and
API
tomfoolery,
including Eat
Something That
Scares You,
Make a Bold
Hair Choice,
Say “I Love
You” Like It’s
Never Been
Said, and

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more. Along
the way,
you'll also

find: •

Embarrassing
stories and
photos we'll
probably
regret sharing

• Character

Building: The
Board Game •

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API
An important
message from
the year 2075

- A quiz to help you determine if you should get a dog
- A eulogy you can read at any funeral
- Grownup merit

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badges to earn

•
API

Contributions
from Mythical
Beasts, and
much more If
you decide to
read this
book, be
warned—there
is a high
likelihood of

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Gen 3D Graphics
API

increased
Mythicality in
your life,
which means
you may soon
find yourself
laughing more,
learning more,
and not taking
yourself too
seriously.
This mentality

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has been known
to spread
easily to

friends and
loved ones.

Get introduced
to full stack
enterprise
development.

Whether you
are new to
AngularJS and

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Spring RESTful
Gen 3D Graphics
web services,
API
or you are a
seasoned
expert, you
will be able
to build a
full-featured
web
application
from scratch
using

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AngularJS and
Spring RESTful
web services.

Full stack web
development is
in demand
because you
can explore
the best of
different
tools and
frameworks and

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Solutions To Next
Gen 3D Graphics
API
yet make your
apps solid and
reliable in
design,
scalability,
robustness,
and security.
This book
assists you in
creating your
own full stack
development

Online Library
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environment
Gen 3D Graphics
API
that includes
the powerful
and revamped
AngularJS, and
Spring REST.
The
architecture
of modern
applications
is covered to
prevent the

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API
development of
isolated
desktop and
mobile
applications.
By the time
you reach the
end of this
book you will
have built a
full-featured
dynamic app.

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API

You will start your journey by setting up a Spring Boot development environment and creating your RESTful services to perform CRUD operations. Then you will

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migrate the
front-end tool
s—AngularJS

and

Bootstrap—into
your Spring
Boot

application to
consume

RESTful

services. You
will secure

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your REST API
Gen 3D Graphics
using Spring

API
Security and

consume your

secured REST

API using

AngularJS.

What You'll

Learn Build a

REST

application

with Spring

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API
Boot Expose
CRUD
operations
using RESTful
endpoints
Create a
single page
application by
integrating
Angular JS and
Bootstrap in
Spring Boot

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API
Secure REST
APIs using
Spring
Security
Consume
secured
RESTful
Services using
Angular JS
Build a REST
client using a
REST template

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to consume
Gen 3D Graphics
RESTful
API
services Test
RESTful
services using
the Spring MVC
Test Framework
Who This Book
Is For Web
application
developers
with previous

Online Library

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Java
Gen 3D Graphics
API
programming
experience who
want to create
enterprise-
grade,
scalable Java
apps using
powerful front
tools such as
AngularJS and
Bootstrap

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along with
Gen 3D Graphics
API
popular back-
end frameworks
such as Spring
Boot

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BESTSELLER •

The authors of
The Home Edit
and stars of
the Netflix

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Solutions To Next
series Get
Gen 3D Graphics
API
Organized with
The Home Edit
teach you how
to apply their
genius,
holistic
approach to
your work
life, on-the-
go
necessities,

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and
Gen 3D Graphics
API
technology. At

home or on the
go, you don't
have to live
like a
minimalist to
feel happy and
calm. The Home
Edit mentality
is all about
embracing your

Online Library

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life—whether
Gen 3D Graphics
API
you're a busy
mom, a
roommate
living with
three, or
someone who's
always
traveling for
work. You just
need to know
how to set up

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API
a system that
works for you.

In the next
phase of the
home
organizing
craze, Clea
Shearer and
Joanna Teplin
go beyond the
pantry and
bookshelf to

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API

show you how
to contain the
chaos in all
aspects of
your life,
from office
space and
holiday
storage to
luggage and
pet supplies.
Get to know

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your
Gen 3D Graphics
organizing
API
style, tailor
it to your
family's
lifestyle, and
lead the low-
guilt life as
you apply more
genius ideas
to every
aspect of your

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life. Clea and
Joanna are
here to remind
you that “it’s
okay to own
things” in the
quest for
pretty and
smart spaces.
With The Home
Edit Life,
you’ll soon be

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corralling
phone cords,
archiving old
photos,
arranging your
phone apps by
color, and
packing your
suitcase like
a pro.

Interactive 3D
Graphics

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Create amazing
games with Qt
5, C++, and Qt
Quick, 2nd
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Game Engine
Architecture,
Third Edition
Modern C++
Programming

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Cookbook
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Master C++
core language
and standard
library
features, with
over 100
recipes,
updated to
C++20, 2nd
Edition

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Implementing
Cisco UCS
Solutions
Vulkan
CookbookPackt
Publishing Ltd
Intended to
anyone
interested in
numerical
computing and
data science:

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students,
researchers,
teachers,
engineers,
analysts,
hobbyists...

Basic knowledge
of Python/NumPy
is recommended.

Some skills in
mathematics
will help you
understand the

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theory behind
the
computational
methods.

A biohacking
program for
women, teaching
them how to use
their natural
28-day cycle to
optimize their
time, diet,
fitness, work,

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and
Gen 3D Graphics
relationships.

API
Presents a
4-week solution
to manage
energy and time
according to
female
biochemistry.

By working with
each phase,
you'll support
your hormones,

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unlock peak
creativity and
performance,
and avoid
burnout. You'll
know exactly
when to eat
certain foods,
clear your
social
calendar, or
ask for a
raise--and

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you'll have the
tools to do so.

Includes meal
plans and
recipes for
each phase;
carts for phase-
specific
exercises, work
tasks, and
relationship
activities; a
daily planner

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that helps you align with your strengths in each phase; and a biohacking toolkit for navigating period problems and hormonal birth control.

Learn OpenGL will teach you the basics, the

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API

intermediate,
and tons of
advanced
knowledge,
using modern
(core-profile)
OpenGL. The aim
of this book is
to show you all
there is to
modern OpenGL
in an easy-to-
understand

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API

fashion, with
clear examples
and step-by-
step
instructions,
while also
providing a
useful
reference for
later studies.
Explore modern
game
programming and

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rendering
techniques to
build games
using C++
programming
language and
its popular
libraries Key
Features Learn
how you can
build basic 2D
and complex 3D
games with C++

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Understand
shadows,
texturing,
lighting, and
rendering in 3D
game
development
using OpenGL
Uncover modern
graphics
programming
techniques and
GPU compute

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API
Book

Description

Although
numerous
languages are
currently being
used to develop
games, C++
remains the
standard for
fabricating

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Vulkan Cookbook:
Solutions To Next
expert
Gen 3D Graphics
libraries and
API
tool chains for

game
development.
This book
introduces you
to the world of
game
development
with C++. C++
Game

Development By
Page 381/397

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Example starts by touching upon the basic concepts of math, programming, and computer graphics and creating a simple side-scrolling action 2D game. You'll build a

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API

solid
foundation by
studying basic
game concepts
such as
creating game
loops,
rendering 2D
game scenes
using SFML, 2D
sprite creation
and animation,
and collision

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detection. The book will help you advance to creating a 3D physics puzzle game using modern OpenGL and the Bullet physics engine. You'll understand the graphics pipeline, which

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entails

creating 3D

objects using

vertex and

index buffers

and rendering

them to the

scene using

vertex and

fragment

shaders.

Finally, you'll

create a basic

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project using
the Vulkan
library that'll
help you get to
grips with
creating swap
chains, image
views, render
passes, and
frame buffers
for building hi
gh-performance
graphics in

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your games. By the end of this book, you'll be ready with 3 compelling projects created with SFML, the Vulkan API, and OpenGL, and you'll be able to take your game and graphics

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programming
skills to the
next level.

What you will
learn

Understand
shaders and how
to write a
basic vertex
and fragment
shader Build a
Visual Studio
project and add

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API
SFML to it
Discover how to
create sprite
animations and
a game
character class
Add sound
effects and
background
music to your
game Grasp how
to integrate
Vulkan into

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Visual Studio
Create shaders
and convert
them to the
SPIR-V binary
format Who this
book is for If
you're a
developer keen
to learn game
development
with C++ or get
up to date with

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game
development,
this book is
for you. Some
knowledge of
C++ programming
is assumed.

Computer
Graphics from
Scratch
Rhett & Link's
Book of
Mythicality

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Parallel
Processing
FreeBSD
Handbook
Learning OpenGL
ES for iOS
The Autoimmune
Fix
Introduction to
3D Game
Programming
with DirectX 12

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A systematic guide consisting of over 70 recipes which focus on helping you build portable mobile games and aims to enhance your game development skills with clear instructions. If you are a C++ developer who wants to jump

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into the world of
Android game
development and
who wants to use the
power of existing
C++ libraries in your
existing Android
Java applications,
then this book is for
you. You need to
have basic
knowledge of C or

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C++ including
pointer
manipulation,
multithreading, and
object-oriented
programming
concepts as well as
some experience
developing
applications without
using an IDE.

Real-Time

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Rendering
Learn OpenGL
Android NDK Game
Development
Cookbook
Mastering Android
NDK
The Official Guide
to Learning Vulkan
Game Programming
using Qt 5
Beginner's Guide

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How to Work in
Sync with Your
Biochemistry to
Unlock Peak
Productivity, Health,
and Happiness