Game Audio Implementation offers a unique practical approach to learning all about game audio. If you've always wanted to hear your sound or music in a real game then this is the book for you. Each chapter is accompanied by its own game level where you can see the techniques and theories in action before working through over 70 exercises to develop your own demo level. Taking you all the way from first principles to complex interactive systems in the industry standard Unreal Engine® you'll gain the skills to implement your sound and music along with a deep transferable knowledge of the principles you can apply across a range of other game development tools. The accompanying website (www.gameaudioimplementation.com) includes: 12 downloadable demonstration games A unique exercise level for you to develop for your portfolio An up-to-date online bibliography with further reading for each chapter A free sound library with hundreds of game SFX
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Unity Game Audio Implementation - ANDREW. COGGAN - 2021-11-26

Unity Game Audio Implementation offers a unique, practical project based approach to learning about aspects of Interactive Game Audio for those who have never used a game engine before and don't want to learn computer programming right now. The book offers insight into the skills needed to design game-ready sounds in current DAW and shows how to implement these sounds within the Unity game engine. The reader will also learn about interactive music and how to set this up to respond to a variety of events in the game with the option of adding in their own story and dialogue. All the information is presented in a practical working context from an established Game Audio Sound Designer with AAA games experience. The chapters are accompanied by several game levels teaching all about the techniques and theories before offering instructive steps on how to put them into action. After completing the practical tasks in this book, not only will the reader create an interactive soundscape for a multi-level playable game featuring all their own audio. They will also receive tips on how to use their finished project in support of an application for Game Sound Design jobs.

Principles of Game Audio and Sound Design - Jean-Luc Sinclair - 2020-04-28

Principles of Game Audio and Sound Design is a comprehensive introduction to the art of sound for games and interactive media using Unity. This accessible guide encompasses both the conceptual challenges of the artform as well as the technical and creative aspects, such as sound design, spatial audio, scripting, implementation and mixing. Beginning with basic techniques, including linear and interactive sound design, before moving on to advanced techniques, such as procedural audio, Principles of Game Audio and Sound Design is supplemented by a host of digital resources, including a library of ready-to-use, adaptable scripts. This thorough introduction provides the reader with the skills and tools to combat the potential challenges of game audio independently. Principles of Game Audio and Sound Design is the perfect primer for beginner- to intermediate-level readers with a basic understanding of audio production and Unity who want to learn how to gain a foothold in the exciting world of game and interactive audio.
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Game Audio Implementation - Richard
Stevens - 2015
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The Game Audio Strategy Guide - Gina
Zdanowicz - 2019-12-10
The Game Audio Strategy Guide is a
comprehensive text designed to turn both
novices and experienced audio designers into
technical game audio pros. Providing both a
theoretical foundation and practical insights, The
Game Audio Strategy Guide offers a thorough
look at the tools and methods needed to create
industry-quality music and sound design for
games. The text is supported by an extensive
companion website, featuring numerous practical
tutorials and exercises, which allows the reader
to gain hands-on experience creating and
implementing audio assets for games. The Game
Audio Strategy Guide is the essential manual for
anyone interested in creating audio for games,
inside or outside the classroom.

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Good quality audio has always been important to Horowitz - 2014-03-05
The Essential Guide to Game Audio: The Theory and Practice of Sound for Games is a first of its kind textbook and must-have reference guide for everything you ever wanted to know about sound for games. This book provides a basic overview of game audio, how it has developed over time, and how you can make a career in this industry. Each chapter gives you the background and context you will need to understand the unique workflow associated with interactive media. The practical, easy to understand interactive examples provide hands-on experience applying the concepts in real world situations.

The Essential Guide to Game Audio - Steve Horowitz - 2014-03-05
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New Realities in Audio - Stephan Schütze - 2018-01-29
The new realities are here. Virtual and Augmented realities and 360 video technologies are rapidly entering our homes and office spaces. Good quality audio has always been important to the user experience, but in the new realities, it is more than important, it’s essential. If the audio doesn’t work, the immersion of the experience fails and the cracks in the new reality start to show. This practical guide helps you navigate the challenges and pitfalls of designing audio for these new realities. This technology is different from anything we’ve seen before and requires an entirely new approach; this book will introduce the broad concepts you need to know before delving into the practical detail you need.

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Unity Game Audio Implementation - Andrew Coggan - 2021-12-03
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**Game Audio Programming 2** - Guy Somberg - 2018-08-30
Welcome to the second volume of Game Audio Programming: Principles and Practices - the first series of its kind dedicated to the art of game audio programming! This volume features more than 20 chapters containing advanced techniques from some of the top game audio programmers and sound designers in the industry. This book continues the tradition of collecting more knowledge and wisdom about game audio programming than any other volume in history. Both audio programming beginners and seasoned veterans will find content in this book that is valuable, with topics ranging from extreme low-level mixing to high-level game integration. Each chapter contains techniques that were used in games that have shipped, and there is a plethora of code samples and diagrams. There are chapters on threading, DSP implementation, advanced middleware techniques in FMOD Studio and Audiokinetic Wwise, ambiences, mixing, music, and more. This book has something for everyone who is programming audio for a game: programmers new to the art of audio programming, experienced audio programmers, and those souls who just got assigned the audio code. This book is for you!

**Getting Started with C++ Audio Programming for Game Development** - David Gouveia - 2013-01-01
This book is a standard tutorial targeted at game developers which aims to help them incorporate audio programming techniques to enhance their gameplay experience. This book is perfect for C++ game developers who have no experience with audio programming and who would like a quick introduction to the most important topics required to integrate audio into a game.

**Aaron Marks’ Complete Guide to Game Audio** - Aaron Marks - 2017-03-16
Whether trying to land that first big gig or working to perfect the necessary skills to fill a game world with sound, Aaron Marks’ Complete Guide to Game Audio 3rd edition will teach the reader everything they need to know about the audio side of the multi-million dollar video game industry. This book builds upon the success of the second edition with even more expert advice
Richard Jacques and Tom Salta, use to create changes within the growing video game industry. The tools of the trade excerpts will showcase what professionals, like Marty O’Donnell, Richard Jacques and Tom Salta, use to create their work and to help newcomers in the field prepare their own sound studios. Sample contracts are reviewed within the text as well as helpful advice about contractual terms and negotiable points. These sample contracts can also be found as a downloadable zip for the reader’s convenience. Aaron Marks also explores how to set your financial terms and network efficiently along with examples of how projects can go completely awry and achieving the best results in often complicated situations. Aaron Marks’ Complete Guide to Game Audio serves as the ultimate survival guide to navigating an audio career in the video game industry. Key Features New, full color edition with a complete update of information. Added and expanded coverage of field recording for games, creating voiceovers, adaptive and interactive audio and other cutting edge sound creation and implementation techniques used within games. Update/Replacement of interviews. Include interviews/features on international game audio professionals New and expanded interview features from game composers and sound designers of every experience level such as Keith Arem, Bradley Meyer, Christopher Tin and Rodney Gates including many international professionals like Pasi Pitkanen, Henning Nugel and Christos Panayides. Expanded and updated game console coverage of the Wii, Wii U, Xbox 360, Xbox One, PS3 and PS4. Includes new scripting and middleware concepts and techniques and review of powerful tools such as FMOD and Wwise.

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Designing Audio Effect Plug-ins in C++ with Digital Audio Signal Processing Theory - William C. Pirkle - 2012-10-01
The professional recording industry is rapidly moving from a hardware paradigm (big studios with expensive gear) to a software paradigm, in which lots of expensive hardware is replaced with a single computer loaded with software plug-ins. Complete albums are now being recorded and engineered “inside the box”—all within a computer without hardware processing or mixing gear. Audio effect plug-ins, which are small software modules that work within audio host applications, like Avid Pro Tools, Apple Logic, Ableton Live, and Steinberg Cubase, are big business. Designing Audio Effect Plug-Ins in C++ gives readers everything they need to know to create real-world, working plug-ins in the
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Game Sound - Canada Research Chair in Interactive Audio Karen Collins - 2008
A distinguishing feature of video games is their interactivity, and sound plays an important role in this: a player's actions can trigger dialogue, sound effects, ambient sound, and music. This book introduces readers to the various aspects of game audio, from its development in early games to theoretical discussions of immersion and realism.

Writing Interactive Music for Video Games - Michael Sweet - 2014-08-11
"This book is a must read for newcomers and experienced composers wanting to learn more about the art of video game composition."
—Chuck Doud, Director of Music, Sony Computer Entertainment Worldwide Studios All You Need to Know to Create Great Video Game Music
Written by the developer of Berklee School of Music's pioneering game scoring program, this guide covers everything professional composers and music students need to know about composing interactive music for video games, and contains exclusive tools for interactive scoring—tools that were previously available only at Berklee. Drawing on twenty years of professional experience in the game industry, Michael Sweet helps you master the unique language of music storytelling in games. Next, he walks you through the entire music composition process, from initial conceptualization and
Inside, you’ll find dozens of examples that illustrate adaptive compositional techniques, from small downloadable games to multimillion dollar console titles. In addition, this guide covers the business side of video game composition, sharing crucial advice about contracts, pricing, sales, and marketing. Coverage includes Overcoming the unique challenges of writing for games Composing music that can adapt in real time to player actions Developing thematic ideas Using audio middleware to create advanced interactive scores Working effectively with game development teams Understanding the life of a video game composer Managing contracts, rights, estimating, and negotiation Finding work The companion website contains software tools to help you master interactive music concepts explored in this book, with additional resources and links to learn more about scoring for games. See Appendix A for details.

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**Practical Game Design** - Ennio De Nucci - 2018-04-19

Design accessible and creative games across genres, platforms, and development realities

Key Features

- Implement the skills and techniques required to work in a professional studio
- Ace the core principles and processes of level design, world building, and storytelling
- Design interactive characters that animate the gaming world

Book Description

If you are looking for an up-to-date and highly applicable guide to game design, then you have come to the right place! Immerse yourself in the fundamentals of game design with this book, written by two highly experienced industry professionals to share their profound insights as well as give valuable advice on creating games across genres and development platforms. Practical Game Design covers the basics of game design one piece at a time. Starting with learning how to conceptualize a game idea and present it to the development team, you will gradually move on to devising a design plan for the whole project and adapting solutions from other games. You will also discover how to produce original game mechanics without relying on existing reference material, and test and eliminate anticipated design risks. You will then design elements that compose the playtime of a game, followed by making game mechanics, content, and interface accessible to all players. You will also find out how to simultaneously ensure that the gameplay mechanics and content are working as intended. As the book reaches its final chapters, you will learn to wrap up a game ahead of its release date, work through the different challenges of designing free-to-play games, and understand how to significantly improve their quality through iteration, polishing and playtesting. What you will learn Define the scope and structure of a game project Conceptualize a
design, work through the different challenges of game mechanics. Design successful business models and prepare your games for live operations. Master the principles behind level design, worldbuilding, and storytelling. Improve the quality of a game by playtesting and polishing it. Who this book is for: Whether you are a student eager to design a game or a junior game designer looking for your first role as a professional, this book will help you with the fundamentals of game design. By focusing on best practices and a pragmatic approach, Practical Game Design provides insights into the arts and crafts from two senior game designers that will interest more seasoned professionals in the game industry.

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**3D Game Engine Design** - David Eberly - 2006-11-03

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**New Traditional Games for Learning** - Alex Moseley - 2013-09-05

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A practitioner's guide to the basic principles of creating sound effects using easily accessed free software. Designing Sound teaches students and professional sound designers to understand and create sound effects starting from nothing. Its thesis is that any sound can be generated from first principles, guided by analysis and synthesis. The text takes a practitioner's perspective, exploring the basic principles of making ordinary, everyday sounds using an easily accessed free software. Readers use the Pure Data (Pd) language to construct sound objects, which are more flexible and useful than recordings. Sound is considered as a process, rather than as data—an approach sometimes known as “procedural audio.” Procedural sound is a living sound effect that can run as computer code and be changed in real time according to unpredictable events. Applications include video games, film, animation, and media in which sound is part of an interactive process. The book takes a practical, systematic approach to the subject, teaching by example and providing background information that offers a firm theoretical context for its pragmatic stance. [Many of the examples follow a pattern, beginning with a discussion of the nature and physics of a sound, proceeding through the development of models and the implementation of examples, to the final step of producing a Pure Data program for the desired sound. Different synthesis methods are discussed, analyzed, and refined throughout.] After mastering the techniques presented in Designing Sound, students will be able to build their own sound objects for use in interactive applications and other projects.

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**Game Audio with FMOD and Unity** - Ciarán
Robinson - 2019-03-04

Game Audio with FMOD and Unity introduces
readers to the principles and practice of game
audio through the process of creating their own
First Person Shooter (FPS) game. All the basics
are covered, as well as a simple introduction to
coding. Using the free software Unity and FMOD
Audio Middleware, the reader will be able to
create a game of their own and develop a
portfolio that demonstrates their capacities in
interactive sound design. Perfect for classroom
use or independent study, Game Audio with
FMOD and Unity also comes with a full suite of
audio assets provided on a companion website.

**Digital Audio Theory** - Christopher L. Bennett -
2020-12-27

"Digital Audio Theory: A Practical Guide bridges
the fundamental concepts and equations of
digital audio with their real-world
implementation in an accessible introduction,
with dozens of programming examples and
projects. Starting with digital audio conversion,
then segueing into filtering and finally real-time
spectral processing, Digital Audio Theory
introduces the uninitiated reader to signal
processing principles and techniques used in
audio effects and virtual instruments that are
found in digital audio workstations. Every
chapter includes programming snippets for the
reader to hear, explore, and experiment with
digital audio concepts. Practical projects
challenge the reader, providing hands-on
experience in designing real-time audio effects,
building FIR and IIR filters, applying noise
reduction and feedback control, measuring
impulse responses, software synthesis, and much
more. Music technologists, recording engineers,
and students of these fields will welcome
Bennett's approach, which targets readers with a
background in music, sound, and recording. This
guide is suitable for all levels of knowledge in
mathematics, signals and systems, and linear
circuits. Code for the programming examples and
accompanying videos made by the author can be
found on the companion website,
DigitalAudioTheory.com"--

**The Great Game of Business** - Jack Stack -
2013
In this expanded 20th Anniversary Edition of the book that started a business revolution, a successful businessman shares his philosophy of management that puts the concerns of the employees first and creates a company that will provide people with lifelong livelihood. Original. 50,000 first printing.

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_Rules of Play_ - Katie Salen Tekinbas - 2003-09-25
An impassioned look at games and game design that offers the most ambitious framework for understanding them to date. As pop culture, games are as important as film or television—but game design has yet to develop a theoretical framework or critical vocabulary. In Rules of Play Katie Salen and Eric Zimmerman present a much-needed primer for this emerging field. They offer a unified model for looking at all kinds of games, from board games and sports to computer and video games. As active participants in game culture, the authors have written Rules of Play as a catalyst for innovation, filled with new concepts, strategies, and methodologies for creating and understanding games. Building an aesthetics of interactive systems, Salen and Zimmerman define core concepts like "play," "design," and "interactivity." They look at games through a series of eighteen "game design schemas," or conceptual frameworks, including games as systems of emergence and information, as contexts for social play, as a storytelling medium, and as sites of cultural resistance. Written for game scholars, game developers, and interactive designers, Rules of Play is a textbook, reference book, and theoretical guide. It is the first comprehensive attempt to establish a solid theoretical framework for the emerging discipline of game design.

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_Rules of Play_ - Katie Salen Tekinbas - 2003-09-25
An impassioned look at games and game design that offers the most ambitious framework for
who wish to improve their teaching or coaching gameplay. If you are a sound designer or composer and want to do more than just create audio elements and hand them over to someone else for insertion into the game, this book is for you. You’ll understand the game development process and implement vital audio experiences—not just create music loops or one-off sound effects. The Game Audio Tutorial isn't just a book—you also get a powerful website (www.thegameaudiotutorial.com)

The Game-Centred Approach to Sport Literacy - Sixto González-V illora - 2020-10-23
The Game Centred Approach (GCA) is the ideal framework for coaches and teachers to develop comprehensive tactical or technical lessons for any game, both in physical education and in extracurricular sport contexts. Learning about the pedagogical models included in this approach has never been easier thanks to this short introductory guide. The book helps the reader acquire the skills needed to design effective session plans, regardless of the sport that is being taught or coached. It introduces the core concepts underpinning the GCA model, complemented by practical examples of tasks and strategies for each game category and assessment instrument. This is essential reading for all educators, coaches or sports professionals who wish to improve their teaching or coaching to enhance their students and players’ physical literacy and sport competence. It is also invaluable reading for any student or researcher working in physical education, sport coaching or sport pedagogy.

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From Pac-Man to Pop Music - Karen Collins - 2017-10-03
Digital interactive audio is the future of audio in media - most notably video games, but also web pages, theme parks, museums, art installations and theatrical events. Despite its importance to contemporary multi-media, this is the first book that provides a framework for understanding the history, issues and theories surrounding interactive audio. Karen Collins presents the work of academics, composers and sound programmers to introduce the topic from a variety of angles in order to provide a supplementary text for music and multimedia courses. The contributors cover practical and theoretical approaches, including historical perspectives, emerging theories, socio-cultural approaches to fandom, reception theory and case study analyses. The book offers a fresh perspective on media music, one that will complement film studies, but which will show the necessity of a unique approach when considering games music.

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Implementing Evidence-Based Practice in Healthcare - Gill Harvey - 2015-03-24

The successful implementation of evidence into practice is dependent on aligning the available evidence to the particular context through the active ingredient of facilitation. Designed to support the widely recognised PARIHS framework, which works as a guide to plan, action and evaluate the implementation of evidence into practice, this book provides a very practical ‘how-to’ guide for facilitating the whole process. This text discusses: undertaking an initial diagnosis of the context and reaching a consensus on the evidence to be implemented; how to link the research evidence with clinical and patients’ experience and local information in the form of audit data or patient and staff feedback; the range of diagnostic, consensus building and stakeholder consultation methods that can be helpful; a description of facilitator roles and facilitation methods, tools and techniques; some of theories that underpin the PARIHS framework and how these have been integrated to inform a revised version of PARIHS including internationally-sourced case study examples to illustrate how the facilitation role and facilitation skills have been applied in a range of different health care settings, this is the ideal text for those interested in leading or facilitating evidence based implementation projects, from the planning stage through to evaluation.

Effective Peer Learning - Keith Topping - 2017-03-31

Peer learning allows a positive use of differences between pupils, turning them into learning opportunities. Yet education professionals often remain unfamiliar with the principles necessary to guarantee its effectiveness. The aim of this book is to help practitioners establish well-structured and effective peer learning projects using a variety of methods. It introduces and defines cooperative learning (mutual peer interaction) and peer tutoring (directional peer interaction) – outlining general organisational principles that will help practitioners implement peer learning in either of these forms. The authors consider how to prepare and train learners to undertake their roles effectively, and how to organise and monitor the process of interaction as it is happening. They then look at how these systems actually operate in the classroom, exploring how the organisational principles work in practice and giving many practical examples. Subsequently three successive chapters consider how to structure peer interactions in cooperative learning, same-age peer tutoring and cross-age peer tutoring. Finally, the advantages and problems, and the potential and challenges, of peer learning are examined. The book should be read in stages, with each part being able to be read on its own – thus providing time for reflection. Within each part, readers can choose to focus on cooperative learning or peer tutoring. The successive focuses on definitions, general principles of implementation and practical issues of implementation should help practitioners build their skills and confidence. Many choices between methods are described, and when teachers are confident in one method they may then consider trying a new method. It is the authors' hope that the book will become a model for peer learning by sharing with readers the
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Foundations in Sound Design for Interactive Media - Michael Filimowicz - 2019-06-21

This volume provides a comprehensive introduction to foundational topics in sound design for interactive media, such as gaming and virtual reality; compositional techniques; new interfaces; sound spatialization; sonic cues and semiotics; performance and installations; music on the web; augmented reality applications; and sound producing software design. The reader will gain a broad understanding of the key concepts and practices that define sound design for its use in computational media and design. The chapters are written by international authors from diverse backgrounds who provide multidisciplinary perspectives on sound in its interactive forms. The volume is designed as a textbook for students and teachers, as a handbook for researchers in sound, design and media, and as a survey of key trends and ideas for practitioners interested in exploring the boundaries of their profession.

Implementing Occupation-centred Practice - Karina Dancza - 2018-04-11

This practical text supports occupational therapy students and educators as they navigate the opportunities and challenges of practice learning. Reflecting contemporary and innovative occupation-centred practice, it sets out a step-by-step guide to using this knowledge across a range of settings. The clear structure, templates, examples and strategies it presents demonstrate how contemporary theory can be used to inform and guide practice. Implementing Occupation-centred Practice is an essential resource for occupational therapy students during their placement preparation and throughout their placement. It also serves as a tool for practice
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Get in the Game - Rich Armstrong - 2019-10
Though technology has evolved at hyper speed over the past hundred years, management styles have mostly stayed the same. The higher-ups make the decisions, and the employees grind it out, often without knowing the endgame. In 1983, Jack Stack created a new game: The Great Game of Business. Get In The Game further explains the rules of this Game: to win, you must get everyone at all levels of the business as informed, involved, and engaged as the owner. This book offers a step-by-step guide on how to teach employees the numbers, show them the big picture, and let them have a say in the company's future. The Game has already benefited thousands of companies: Is yours ready to get in The Game?

Audio Effects - Joshua D. Reiss - 2014-10-23
Audio Effects: Theory, Implementation and Application explores digital audio effects relevant to audio signal processing and music informatics. It supplies fundamental background information on digital signal processing, focusing on audio-specific aspects that constitute the building block on which audio effects are developed. The text integrates theory and practice, relating technical implementation to musical implications. It can be used to gain an understanding of the operation of existing audio effects or to create new ones. In addition to delivering detailed coverage of common (and unusual) audio effects, the book discusses current digital audio standards, most notably VST and AudioUnit. Source code is provided in C/C++ and implemented as audio effect plug-ins with accompanying sound samples. Each section of the book includes study questions, anecdotes from the history of music technology, and examples that offer valuable real-world insight, making this an ideal resource for researchers and for students moving directly into industry.
Although international development discourse considers the state as a crucial development actor, there remains a significant discrepancy between the official norms of the state and public services and the actual practices of political elites and civil servants. This text interrogates the variety of ways in which state policies and legal norms have been translated into the set of practical norms which make up real governance in sub-Saharan Africa. It argues that the concept of practical norms is an appropriate tool for an ethnographic investigation of public bureaucracies, interactions between civil servants and users, and the daily functioning of the state in Africa. It demonstrates that practical norms are usually different from official norms, complementing, bypassing and even contradicting them. In addition, it explores the positive and negative effects of different aspects of this ‘real governance’. This text will be of key interest to academics, students and researchers in the fields of development, political science, anthropology and development studies, African studies, international comparative studies, implementation studies, and public policy.

Real Governance and Practical Norms in Sub-Saharan Africa - Tom De Herdt - 2015-05-15
Although international development discourse considers the state as a crucial development actor, there remains a significant discrepancy between the official norms of the state and public services and the actual practices of political elites and civil servants. This text interrogates the variety of ways in which state policies and legal norms have been translated into the set of practical norms which make up real governance in sub-Saharan Africa. It argues that the concept of practical norms is an appropriate tool for an ethnographic investigation of public bureaucracies, interactions between civil servants and users, and the daily functioning of the state in Africa. It demonstrates that practical norms are usually different from official norms, complementing, bypassing and even contradicting them. In addition, it explores the positive and negative effects of different aspects of this ‘real governance’. This text will be of key interest to academics, students and researchers in the fields of development, political science, anthropology and development studies, African studies, international comparative studies, implementation studies, and public policy.
distributed systems and data science. Together, Toward deep learning: a machine-learning introduction Go as a machine-learning problem Implementing your first Go bot PART 2 - MACHINE LEARNING AND GAME AI Playing games with tree search Getting started with neural networks Designing a neural network for Go data Learning from data: a deep-learning bot Deploying bots in the wild Learning by practice: reinforcement learning Reinforcement learning with policy gradients Reinforcement learning with value methods Reinforcement learning with actor-critic methods PART 3 - GREATER THAN THE SUM OF ITS PARTS AlphaGo: Bringing it all together AlphaGo Zero: Integrating tree search with reinforcement learning

Deep Learning and the Game of Go - Kevin Ferguson - 2019-01-06
Summary Deep Learning and the Game of Go teaches you how to apply the power of deep learning to complex reasoning tasks by building a Go-playing AI. After exposing you to the foundations of machine and deep learning, you'll use Python to build a bot and then teach it the rules of the game. Foreword by Thore Graepel, DeepMind Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology The ancient strategy game of Go is an incredible case study for AI. In 2016, a deep learning-based system shocked the Go world by defeating a world champion. Shortly after that, the upgraded AlphaGo Zero crushed the original bot by using deep reinforcement learning to master the game. Now, you can learn those same deep learning techniques by building your own Go bot! About the Book Deep Learning and the Game of Go introduces deep learning by teaching you to build a Go-winning bot. As you progress, you'll apply increasingly complex training techniques and strategies using the Python deep learning library Keras. You'll enjoy watching your bot master the game of Go, and along the way, you'll discover how to apply your new deep learning skills to a wide range of other scenarios! What's inside Build and teach a self-improving game AI Enhance classical game AI systems with deep learning Implement neural networks for deep learning About the Reader All you need are basic Python skills and high school-level math. No deep learning experience required. About the Author Max Pumperla and Kevin Ferguson are experienced deep learning specialists skilled in

Max and Kevin built the open source bot BetaGo. Table of Contents PART 1 - FOUNDATIONS Toward deep learning: a machine-learning introduction Go as a machine-learning problem Implementing your first Go bot PART 2 - MACHINE LEARNING AND GAME AI Playing games with tree search Getting started with neural networks Designing a neural network for Go data Learning from data: a deep-learning bot Deploying bots in the wild Learning by practice: reinforcement learning Reinforcement learning with policy gradients Reinforcement learning with value methods Reinforcement learning with actor-critic methods PART 3 - GREATER THAN THE SUM OF ITS PARTS AlphaGo: Bringing it all together AlphaGo Zero: Integrating tree search with reinforcement learning

Deep Learning with PyTorch - Luca Pietro Giovanni Antiga - 2020-07-01
“We finally have the definitive treatise on PyTorch! It covers the basics and abstractions in great detail. I hope this book becomes your extended reference document.” —Soumith Chintala, co-creator of PyTorch Key Features Written by PyTorch’s creator and key contributors Develop deep learning models in a familiar Pythonic way Use PyTorch to build an image classifier for cancer detection Diagnose problems with your neural network and improve training with data augmentation Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About The Book Every other day we hear about new ways to put deep learning to good use: improved medical imaging, accurate credit card fraud detection, long range weather forecasting, and more. PyTorch puts these superpowers in your hands. Instantly familiar to anyone who knows Python data tools like NumPy and Scikit-learn, PyTorch simplifies deep learning without sacrificing advanced features. It’s great for building quick models, and it scales smoothly from laptop to enterprise. Deep Learning with PyTorch teaches you to create deep learning and neural network systems with PyTorch. This practical book gets you to work right away building a tumor image classifier from scratch. After covering the basics, you’ll learn best practices for the entire deep learning pipeline, tackling advanced projects as your PyTorch skills become more sophisticated. All code samples are easy to explore in downloadable Jupyter
Deep Learning with PyTorch - Luca Pietro Giovanni Antiga - 2020-07-01

“We finally have the definitive treatise on PyTorch! It covers the basics and abstractions in great detail. I hope this book becomes your extended reference document.” — Soumith Chintala, co-creator of PyTorch

Key Features
Written by PyTorch’s creator and key contributors
Develop deep learning models in a familiar Pythonic way
Use PyTorch to build an image classifier for cancer detection
Diagnose deep learning data structures such as tensors and neural networks
Best practices for the PyTorch Tensor API, loading data in Python, and visualizing results
Implementing modules and loss functions
Utilizing pretrained models from PyTorch Hub
Methods for training networks with limited inputs
Sifting through unreliable results to diagnose and fix problems in your neural network
Improve your results with augmented data, better model architecture, and fine tuning

This Book Is Written For Python
Programmers with an interest in machine learning.
No experience with PyTorch or other deep learning frameworks is required.

About The Authors
Eli Stevens has worked in Silicon Valley for the past 15 years as a software engineer, and the past 7 years as Chief Technical Officer of a startup making medical device software.
Luca Antiga is co-founder and CEO of an AI engineering company located in Bergamo, Italy, and a regular contributor to PyTorch.
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3 It starts with a tensor
4 Real-world data representation using tensors
5 The mechanics of learning
6 Using a neural network to fit the data
7 Telling birds from airplanes: Learning from images
8 Using convolutions to generalize
PART 2 - LEARNING FROM IMAGES IN THE REAL WORLD: EARLY DETECTION OF LUNG CANCER
9 Using PyTorch to fight cancer
10 Combining data sources into a unified dataset
11 Training a classification model to detect suspected tumors
12 Improving training with metrics and augmentation
13 Using segmentation to find suspected nodules
14 End-to-end nodule analysis, and where to go next
PART 3 - DEPLOYMENT
15 Deploying to production

Deep Learning with PyTorch puts these superpowers in your hands. Instantly familiar to anyone who knows Python data tools like NumPy and Scikit-learn, PyTorch simplifies deep learning without sacrificing advanced features. It’s great for building quick models, and it scales smoothly from laptop to enterprise.

After covering the basics, you’ll learn best practices for the entire deep learning pipeline, tackling advanced projects as your PyTorch skills become more sophisticated. All code samples are easy to explore in downloadable Jupyter notebooks.

What You Will Learn
Understanding deep learning data structures such as tensors and neural networks
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**Practical Game AI Programming** - Micael DaGraca - 2017-06-30
Jump into the world of Game AI development

About This Book Move beyond using libraries to create smart game AI, and create your own AI projects from scratch Implement the latest algorithms for AI development and in-game interaction Customize your existing game AI and make it better and more efficient to improve your overall game performance Who This Book Is For This book is for game developers with a basic knowledge of game development techniques and some basic programming techniques in C# or C++. What You Will Learn Get to know the basics of how to create different AI for different type of games Know what to do when something interferes with the AI choices and how the AI should behave if that happens Plan the interaction between the AI character and the environment using Smart Zones or Triggering Events Use animations correctly, blending one animation into another and rather than stopping one animation and starting another Calculate the best options for the AI to move using Pruning Strategies, Wall Distances, Map Preprocess Implementation, and Forced Neighbours Create Theta algorithms to the AI to find short and realistic looking game paths.

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You'll explore which methods and algorithms, such as possibility maps, Forward Chaining Plan, Rete Algorithm, Pruning Strategies, Wall Distances, and Map Preprocess Implementation should be used on different occasions. You'll discover how to overcome some limitations, and how to deliver a better experience to the player. By the end of the book, you think differently about AI. Style and approach The book has a step-by-step tutorial style approach. The algorithms are explained by implementing them in #.
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Playing with Sound - Karen Collins - 2013-01-11
An examination of the player's experience of sound in video games and the many ways that players interact with the sonic elements in games. In Playing with Sound, Karen Collins examines video game sound from the player's perspective. She explores the many ways that players interact with a game's sonic aspects—which include not only music but also sound effects, ambient sound, dialogue, and interface sounds—both within and outside of the game. She investigates the ways that meaning is found, embodied, created, evoked, hacked, remixed, negotiated, and renegotiated by players in the space of interactive sound in games. Drawing on disciplines that range from film studies and philosophy to psychology and computer science, Collins develops a theory of interactive sound experience that distinguishes between interacting with sound and simply listening without interacting. Her conceptual approach combines practice theory (which focuses on productive and consumptive practices around media) and embodied cognition (which holds that our understanding of the world is shaped by our physical interaction with it). Collins investigates the multimodal experience of sound, image, and touch in games; the role of interactive sound in creating an emotional experience through immersion and identification with the game character; the ways in which sound acts as a mediator for a variety of performative activities; and embodied interactions with sound beyond the game, including machinima, chip-tunes, circuit bending, and other practices that use elements from games in sonic performances.