

## Lua Scripting Made Stupid Simple

"The essays in this collection offer a timely intervention in digital humanities scholarship, bringing together established and emerging scholars from a variety of humanities disciplines across the world. The first section offers views on the practical realities of teaching digital humanities at undergraduate and graduate levels, presenting case studies and snapshots of the authors' experiences alongside models for future courses and reflections on pedagogical successes and failures. The next section proposes strategies for teaching foundational digital humanities methods across a variety of scholarly disciplines, and the book concludes with wider debates about the place of digital humanities in the academy, from the field's cultural assumptions and social obligations to its political visions." (4e de couverture).

LUA SCRIPTING MADE STUPID SIMPLE! Are you sick of How-To publishers calling you an "Idiot" or one of their "Dummies"? Well, we give you the respect you deserve but we make the SUBJECT Stupid Simple. In "Lua Scripting Made Stupid Simple" we get you scripting really quick in an easy and enjoyable manner. We cover the following subjects quickly in a way easy to absorb: Commenting in Lua Variables and Data Types Math functions Conditionals Strings Cases Looping For Loops Tables Functions Variadic Functions Closure Coroutines File I/O Modules Metatable Object-oriented programming Inheritance Plus free downloadable code at <http://sixfigureteen.com/luabook> Follow us @Jordan\_RK

Authored by Roberto Ierusalimsky, the chief architect of the language, this volume covers all aspects of Lua 5---from the basics to its API with C---explaining how to make good use of its features and giving numerous code examples. (Computer Books)

This fast-moving tutorial introduces you to OCaml, an industrial-strength programming language designed for expressiveness, safety, and speed. Through the book's many examples, you'll quickly learn how OCaml stands out as a tool for writing fast, succinct, and readable systems code. Real World OCaml takes you through the concepts of the language at a brisk pace, and then helps you explore the tools and techniques that make OCaml an effective and practical tool. In the book's third section, you'll delve deep into the details of the compiler toolchain and OCaml's simple and efficient runtime system. Learn the foundations of the language, such as higher-order functions, algebraic data types, and modules Explore advanced features such as functors, first-class modules, and objects Leverage Core, a comprehensive general-purpose standard library for OCaml Design effective and reusable libraries, making the most of OCaml's approach to abstraction and modularity Tackle practical programming problems from command-line parsing to asynchronous network programming Examine profiling and interactive debugging techniques with tools such as GNU gdb

This text is written for all levels of game AI developers who wish to further their knowledge of the myriad AI games used in various genres. It provides the knowledge and techniques needed to create an AI engine

A multi-user game, web site, cloud application, or networked database can have thousands of users all interacting at the same time. You need a powerful, industrial-strength tool to handle the really hard problems inherent in parallel, concurrent environments. You need Erlang. In this second edition of the bestselling Programming Erlang, you'll learn how to write parallel programs that scale effortlessly on multicore systems. Using Erlang, you'll be surprised at how easy it becomes to deal with parallel problems, and how much faster and more efficiently your programs run. That's because Erlang uses sets of parallel processes-not a single sequential process, as found in most programming languages. Joe Armstrong, creator of Erlang, introduces this powerful language in small steps, giving you a complete overview of Erlang and how to use it in common scenarios. You'll start with sequential programming, move to parallel programming and handling errors in parallel programs, and learn to work confidently with distributed programming and the standard Erlang/Open Telecom Platform (OTP) frameworks. You need no previous knowledge of functional or parallel programming. The chapters are packed with hands-on, real-world tutorial examples and insider tips and advice, and finish with exercises for both beginning and advanced users. The second edition has been extensively rewritten. New to this edition are seven chapters covering the latest Erlang features: maps, the type system and the Dialyzer, WebSockets, programming idioms, and a new stand-alone execution environment. You'll write programs that dynamically detect and correct errors, and that can be upgraded without stopping the system. There's also coverage of rebar (the de facto Erlang build system), and information on how to share and use Erlang projects on github, illustrated with examples from cowboy and bitcask. Erlang will change your view of the world, and of how you program. What You Need The Erlang/OTP system. Download it from [erlang.org](http://erlang.org).

Practical Software Architecture Solutions from the Legendary Robert C. Martin ("Uncle Bob") By applying universal rules of software architecture, you can dramatically improve developer productivity throughout the life of any software system. Now, building upon the success of his best-selling books Clean Code and The Clean Coder, legendary software craftsman Robert C. Martin ("Uncle Bob") reveals those rules and helps you apply them. Martin's Clean Architecture doesn't merely present options. Drawing on over a half-century of experience in software environments of every imaginable type, Martin tells you what choices to make and why they are critical to your success. As you've come to expect from Uncle Bob, this book is packed with direct, no-nonsense solutions for the real challenges you'll face--the ones that will make or break your projects. Learn what software architects need to achieve--and core disciplines and practices for achieving it Master essential software design principles for addressing function, component separation, and data management See how programming paradigms impose discipline by restricting what developers can do Understand what's critically important and what's merely a "detail" Implement optimal, high-level structures for web, database, thick-client, console, and embedded applications Define appropriate boundaries and layers, and organize components and services See why designs and architectures go wrong, and how to prevent (or fix) these failures Clean Architecture is essential reading for every current or aspiring software architect, systems analyst, system designer, and software manager--and for every programmer who must execute someone else's designs. Register your product for convenient access to downloads, updates, and/or corrections as they become available.

"...a must-read text that provides a historical lens to see how ubicomp has matured into a multidisciplinary endeavor. It will be an essential reference to researchers and those who want to learn more about this evolving field." -From the Foreword, Professor Gregory D. Abowd, Georgia Institute of Technology First introduced two decades ago, the term ubiquitous computing is now part of the common vernacular. Ubicomp, as it is commonly called, has grown not just quickly but broadly so as to encompass a wealth of concepts and technology that serves any

number of purposes across all of human endeavor. While such growth is positive, the newest generation of ubicomp practitioners and researchers, isolated to specific tasks, are in danger of losing their sense of history and the broader perspective that has been so essential to the field's creativity and brilliance. Under the guidance of John Krumm, an original ubicomp pioneer, Ubiquitous Computing Fundamentals brings together eleven ubiquitous computing trailblazers who each report on his or her area of expertise. Starting with a historical introduction, the book moves on to summarize a number of self-contained topics. Taking a decidedly human perspective, the book includes discussion on how to observe people in their natural environments and evaluate the critical points where ubiquitous computing technologies can improve their lives. Among a range of topics this book examines: How to build an infrastructure that supports ubiquitous computing applications Privacy protection in systems that connect personal devices and personal information Moving from the graphical to the ubiquitous computing user interface Techniques that are revolutionizing the way we determine a person's location and understand other sensor measurements While we needn't become expert in every sub-discipline of ubicomp, it is necessary that we appreciate all the perspectives that make up the field and understand how our work can influence and be influenced by those perspectives. This is important, if we are to encourage future generations to be as successfully innovative as the field's originators.

Creating robust artificial intelligence is one of the greatest challenges for game developers, yet the commercial success of a game is often dependent upon the quality of the AI. In this book, Ian Millington brings extensive professional experience to the problem of improving the quality of AI in games. He describes numerous examples from real games and explores the underlying ideas through detailed case studies. He goes further to introduce many techniques little used by developers today. The book's associated web site contains a library of C++ source code and demonstration programs, and a complete commercial source code library of AI algorithms and techniques. "Artificial Intelligence for Games - 2nd edition" will be highly useful to academics teaching courses on game AI, in that it includes exercises with each chapter. It will also include new and expanded coverage of the following: AI-oriented gameplay; Behavior driven AI; Casual games (puzzle games). Key Features \* The first comprehensive, professional tutorial and reference to implement true AI in games written by an engineer with extensive industry experience. \* Walks through the entire development process from beginning to end. \* Includes examples from over 100 real games, 10 in-depth case studies, and web site with sample code.

Design a complete Voice over IP (VoIP) or traditional PBX system with Asterisk, even if you have only basic telecommunications knowledge. This bestselling guide makes it easy, with a detailed roadmap that shows you how to install and configure this open source software, whether you're upgrading your existing phone system or starting from scratch. Ideal for Linux administrators, developers, and power users, this updated edition shows you how to write a basic dialplan step-by-step, and brings you up to speed on the features in Asterisk 11, the latest long-term support release from Digium. You'll quickly gain working knowledge to build a simple yet inclusive system. Integrate Asterisk with analog, VoIP, and digital telephony systems Build an interactive dialplan, using best practices for more advanced features Delve into voicemail options, such as storing messages in a database Connect to external services including Google Talk, XMPP, and calendars Incorporate Asterisk features and functions into a relational database to facilitate information sharing Learn how to use Asterisk's security, call routing, and faxing features Monitor and control your system with the Asterisk Manager Interface (AMI) Plan for expansion by learning tools for building distributed systems

How do the experts solve difficult problems in software development? In this unique and insightful book, leading computer scientists offer case studies that reveal how they found unusual, carefully designed solutions to high-profile projects. You will be able to look over the shoulder of major coding and design experts to see problems through their eyes. This is not simply another design patterns book, or another software engineering treatise on the right and wrong way to do things. The authors think aloud as they work through their project's architecture, the tradeoffs made in its construction, and when it was important to break rules. This book contains 33 chapters contributed by Brian Kernighan, KarlFogel, Jon Bentley, Tim Bray, Eliotte Rusty Harold, Michael Feathers, Alberto Savoia, Charles Petzold, Douglas Crockford, Henry S. Warren, Jr., Ashish Gulhati, Lincoln Stein, Jim Kent, Jack Dongarra and PiotrLuszczek, Adam Kolawa, Greg Kroah-Hartman, Diomidis Spinellis, AndrewKuchling, Travis E. Oliphant, Ronald Mak, Rogerio Atem de Carvalho andRafael Monnerat, Bryan Cantrill, Jeff Dean and Sanjay Ghemawat, SimonPeyton Jones, Kent Dybvig, William Otte and Douglas C. Schmidt, AndrewPatzer, Andreas Zeller, Yukihiro Matsumoto, Arun Mehta, TV Raman, Laura Wingerd and Christopher Seiwald, and Brian Hayes. Beautiful Code is an opportunity for master coders to tell their story. All author royalties will be donated to Amnesty International.

Learn to set up a Pi-based game development environment, and then develop a game with Lua, a popular scripting language used in major game frameworks like Unreal Engine (BioShock Infinite), CryEngine (Far Cry series), Diesel (Payday: The Heist), Silent Storm Engine (Heroes of Might and Magic V) and many others. More importantly, learn how to dig deeper into programming languages to find and understand new functions, frameworks, and languages to utilize in your games. You'll start by learning your way around the Raspberry Pi. Then you'll quickly dive into learning game development with an industry-standard and scalable language. After reading this book, you'll have the ability to write your own games on a Raspberry Pi, and deliver those games to Linux, Mac, Windows, iOS, and Android. And you'll learn how to publish your games to popular marketplaces for those desktop and mobile platforms. Whether you're new to programming or whether you've already published to markets like Itch.io or Steam, this book showcases compelling reasons to use the Raspberry Pi for game development. Use Developing Games on the Raspberry Pi as your guide to ensure that your game plays on computers both old and new, desktop or mobile. What You'll Learn Confidently write programs in Lua and the LOVE game engine on the Raspberry Pi Research and learn new libraries, methods, and frameworks for more advanced programming Write, package, and sell apps for mobile platforms Deliver your games on multiple platforms Who This Book Is For Software engineers, teachers, hobbyists, and development professionals looking to up-skill and develop games for mobile platforms, this book eases them into a parallel universe of lightweight, POSIX, ARM-based development.

Invent Your Own Computer Games with Python will teach you how to make computer games using the popular Python programming language—even if you've never programmed before! Begin by building classic games like Hangman, Guess the Number, and Tic-Tac-Toe, and then work your way up to more advanced games, like a text-based treasure hunting game and an animated collision-dodging game with sound effects. Along the way, you'll learn key programming and math concepts that will help you take your game programming to the next level. Learn how to: –Combine loops, variables, and flow control statements into real working programs –Choose the right data structures for the job, such as lists, dictionaries, and tuples –Add graphics and animation to your games with the pygame module –Handle keyboard and mouse input –Program simple artificial intelligence so you can play against the computer –Use cryptography to convert text messages into secret code –Debug your programs and find common errors As you work through each game, you'll build a solid foundation in Python and an understanding of computer science fundamentals. What new game will you create with the power of Python? The projects in this book are compatible with Python 3.

Basic mathematical principles are presented for self-study and review.

"This book is the best way for beginning developers to learn wxWidgets programming in C++. It is a must-have for programmers thinking of using wxWidgets and those already using it." –Mitch Kapor, founder

of Lotus Software and the Open Source Applications Foundation Build advanced cross-platform applications that support native look-and-feel on Windows, Linux, Unix, Mac OS X, and even Pocket PC Master wxWidgets from start to finish—even if you've never built GUI applications before Leverage advanced wxWidgets capabilities: networking, multithreading, streaming, and more Foreword by Mitch Kapor, founder, Lotus Development and Open Source Application Foundation wxWidgets is an easy-to-use, open source C++ API for writing GUI applications that run on Windows, Linux, Unix, Mac OS X, and even Pocket PC—supporting each platform's native look and feel with virtually no additional coding. Now, its creator and two leading developers teach you all you need to know to write robust cross-platform software with wxWidgets. This book covers everything from dialog boxes to drag-and-drop, from networking to multithreading. It includes all the tools and code you need to get great results, fast. From AMD to AOL, Lockheed Martin to Xerox, world-class developers are using wxWidgets to save money, increase efficiency, and reach new markets. With this book, you can, too. wxWidgets quickstart: event/input handling, window layouts, drawing, printing, dialogs, and more Working with window classes, from simple to advanced Memory management, debugging, error checking, internationalization, and other advanced topics Includes extensive code samples for Windows, Linux (GTK+), and Mac OS X

Looks at the principles and clean code, includes case studies showcasing the practices of writing clean code, and contains a list of heuristics and "smells" accumulated from the process of writing clean code. This collection of articles record some of the existing wisdom and practice on how to program well in Lua. In well-written articles that go much beyond the brief informal exchange of tips in the mailing list or the wiki, the authors share their mastery of all aspects of Lua programming, elementary and advanced. The articles cover a wide spectrum of areas and approaches, with authors from both the industry and academia and titles about game programming, programming techniques, embedding and extending, algorithms and data structures, and design techniques.

undefined

A guide to using Windows PowerShell to script Windows administrative tasks and control Windows from the command line.

Masterminds of Programming features exclusive interviews with the creators of several historic and highly influential programming languages. In this unique collection, you'll learn about the processes that led to specific design decisions, including the goals they had in mind, the trade-offs they had to make, and how their experiences have left an impact on programming today. Masterminds of Programming includes individual interviews with: Adin D. Falkoff: APL Thomas E. Kurtz: BASIC Charles H. Moore: FORTH Robin Milner: ML Donald D. Chamberlin: SQL Alfred Aho, Peter Weinberger, and Brian Kernighan: AWK Charles Geschke and John Warnock: PostScript Bjarne Stroustrup: C++ Bertrand Meyer: Eiffel Brad Cox and Tom Love: Objective-C Larry Wall: Perl Simon Peyton Jones, Paul Hudak, Philip Wadler, and John Hughes: Haskell Guido van Rossum: Python Luiz Henrique de Figueiredo and Roberto Ierusalimsky: Lua James Gosling: Java Grady Booch, Ivar Jacobson, and James Rumbaugh: UML Anders Hejlsberg: Delphi inventor and lead developer of C# If you're interested in the people whose vision and hard work helped shape the computer industry, you'll find Masterminds of Programming fascinating. Despite using them every day, most software engineers know little about how programming languages are designed and implemented. For many, their only experience with that corner of computer science was a terrifying "compilers" class that they suffered through in undergrad and tried to blot from their memory as soon as they had scribbled their last NFA to DFA conversion on the final exam. That fearsome reputation belies a field that is rich with useful techniques and not so difficult as some of its practitioners might have you believe. A better understanding of how programming languages are built will make you a stronger software engineer and teach you concepts and data structures you'll use the rest of your coding days. You might even have fun. This book teaches you everything you need to know to implement a full-featured, efficient scripting language. You'll learn both high-level concepts around parsing and semantics and gritty details like bytecode representation and garbage collection. Your brain will light up with new ideas, and your hands will get dirty and calloused. Starting from main(), you will build a language that features rich syntax, dynamic typing, garbage collection, lexical scope, first-class functions, closures, classes, and inheritance. All packed into a few thousand lines of clean, fast code that you thoroughly understand because you wrote each one yourself.

Provides an introduction to AI game techniques used in game programming.

Blender Meets Python is an exciting and concise volume that introduces you to the wonderful couple that have been getting along so well for years now, that's right Blender 3D and Python scripting! This first volume will cover a few topics to lay some groundwork, then quickly cover exactly what you need to know to get your first few Python scripts running, then it will train you to get any additional information you will need for any future Python scripting. Finally it closes with a huge bang as an exciting future for 3D Animation is laid out where Machinima will finally break free of it's current limitations and become a production quality approach using Blender 3D. They even invite you personally to join in their project "Puppet Smoothie" that will need much help from Python script coders just like you!

This short, free ebook from March 2012 describes the Dart language, libraries, and tools that help you develop structured, fast, and maintainable web apps that run in any modern browser.

This book follows a tutorial approach with examples and step-by-step instructions to help explain the key concepts of the LÖVE framework as well as everything you need to know about game development using the Lua programming language.LÖVE2d for Lua Game Programming is for anyone who is interested in learning about desktop game development.

You want increased customer satisfaction, faster development cycles, and less wasted work. Domain-driven design (DDD) combined with functional programming is the innovative combo that will get you there. In this pragmatic, down-to-earth guide, you'll see how applying the core principles of functional programming can result in software designs that model real-world requirements both elegantly and concisely - often more so than an object-oriented approach. Practical examples in the open-source F# functional language, and examples from familiar business domains, show you how to apply these techniques to build software that is business-focused, flexible, and high quality. Domain-driven design is a well-established approach to designing software that ensures that domain experts and developers work together effectively to create high-quality software. This book is the first to combine DDD with techniques from statically typed functional programming. This book is perfect for newcomers to DDD or functional programming - all the techniques you need will be introduced and explained. Model a complex domain accurately using the F# type system, creating compilable code that is also readable documentation---ensuring that the code and design never get out of sync. Encode business rules in the design so that you have "compile-time unit tests," and eliminate many potential bugs by making illegal states unrepresentable. Assemble a series of small, testable functions into a complete use case, and compose these individual scenarios into a large-scale design. Discover why the combination of functional programming and DDD leads naturally to service-oriented and hexagonal architectures. Finally, create a functional domain model that works with traditional databases, NoSQL, and event stores, and safely expose your domain via a website or API. Solve real problems by focusing on real-world requirements for your software. What You Need: The code in this book is designed to be run interactively on Windows, Mac and Linux.You will need a recent version of F# (4.0 or greater), and the appropriate .NET runtime for your platform.Full installation instructions for all platforms at fsharp.org.

Takes programmers through the complete process of developing a professional quality game, covering a range of topics such as the key "gotcha" issues that could trip up even a veteran programmer, game interface design, game audio, and game engine technolog

Since its release on September 1, 2006, Lage Raho Munna Bhai has been watched by millions, broken box-office records, won unprecedented praise from the masses and critics alike, and most importantly, forced a nation of one billion people and the world's largest democracy to revisit their much misunderstood icon, Mahatma Gandhi.Following the

release of the film, there has been a four hundred percent increase in the sale of literature about Gandhi. Schools and universities have introduced courses on Gandhigiri - a phrase from the film that has become a part of India's collective consciousness. Websites, fan clubs, discussion forums, and citizen groups have sprung across the nation to discuss the film's unique ideas. The Washington Post called the film, "A phenomenon that made Gandhi a pop icon." Amazingly, the movie that has inspired such an astonishing response is an unassuming comedy. A gangster has hallucinations that he can see Gandhi! With this simple premise, the movie explores the relevance of Gandhian ideals in the contemporary world beleaguered by violence and hate, while never forgetting to be, as The Guardian points out, "A magnificent entertainment."

The defacto standard - a must-have for all LISP programmers. In this greatly expanded edition of the defacto standard, you'll learn about the nearly 200 changes already made since original publication - and find out about gray areas likely to be revised later. Written by the Vice- Chairman of X3J13 (the ANSI committee responsible for the standardization of Common Lisp) and co-developer of the language itself, the new edition contains the entire text of the first edition plus six completely new chapters. They cover: - CLOS, the Common Lisp Object System, with new features to support function overloading and object-oriented programming, plus complete technical specifications \* Loops, a powerful control structure for multiple variables \* Conditions, a generalization of the error signaling mechanism \* Series and generators \* Plus other subjects not part of the ANSI standards but of interest to professional programmers. Throughout, you'll find fresh examples, additional clarifications, warnings, and tips - all presented with the author's customary vigor and wit.

Want to learn how to program and think like a computer scientist? This practical guide gets you started on your programming journey with the help of Perl 6, the younger sister of the popular Perl programming language. Ideal for beginners, this hands-on book includes over 100 exercises with multiple solutions, and more than 1,000 code examples so you can quickly practice what you learn. Experienced programmers—especially those who know Perl 5—will also benefit. Divided into two parts, Think Perl 6 starts with basic concepts that every programmer needs to know, and then focuses on different programming paradigms and some more advanced programming techniques. With two semesters' worth of lessons, this book is the perfect teaching tool for computer science beginners in colleges and universities. Learn basic concepts including variables, expressions, statements, functions, conditionals, recursion, and loops Understand commonly used basic data structures and the most useful algorithms Dive into object-oriented programming, and learn how to construct your own types and methods to extend the language Use grammars and regular expressions to analyze textual content Explore how functional programming can help you make your code simpler and more expressive

What is it like to drive a Challenger tank over desert terrain for six days in a row? Or hover an Apache AH1 attack helicopter a hundred meters above enemy ground? How quickly can a Sapper clear a field of unexploded devices, or build a bridge—or blow one up? What is it like to fix bayonets, and engage in hand to hand combat, or train a 5.56 mm SA80 sniper sight on an enemy soldier, and pull the trigger? How do you find out what a soldier must learn on his way to war? Ask him. In this extraordinary book, Danny Danziger interviews the people who fight our wars for us, providing a unique insight into the reality of what we ask of our armed forces. Groundbreaking and utterly compelling, We Are Soldiers takes the reader to the heart of the 21st century soldier's experience.

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Function literals, Monads, Lazy evaluation, Currying, and more About This Book Write concise and maintainable code with streams and high-order functions Understand the benefits of currying your Golang functions Learn the most effective design patterns for functional programming and learn when to apply each of them Build distributed MapReduce solutions using Go Who This Book Is For This book is for Golang developers comfortable with OOP and interested in learning how to apply the functional paradigm to create robust and testable apps. Prior programming experience with Go would be helpful, but not mandatory. What You Will Learn Learn how to compose reliable applications using high-order functions Explore techniques to eliminate side-effects using FP techniques such as currying Use first-class functions to implement pure functions Understand how to implement a lambda expression in Go Compose a working application using the decorator pattern Create faster programs using lazy evaluation Use Go concurrency constructs to compose a functionality pipeline Understand category theory and what it has to do with FP In Detail Functional programming is a popular programming paradigm that is used to simplify many tasks and will help you write flexible and succinct code. It allows you to decompose your programs into smaller, highly reusable components, without applying conceptual restraints on how the software should be modularized. This book bridges the language gap for Golang developers by showing you how to create and consume functional constructs in Golang. The book is divided into four modules. The first module explains the functional style of programming; pure functional programming (FP), manipulating collections, and using high-order functions. In the second module, you will learn design patterns that you can use to build FP-style applications. In the next module, you will learn FP techniques that you can use to improve your API signatures, to increase performance, and to build better Cloud-native applications. The last module delves into the underpinnings of FP with an introduction to category theory for software developers to give you a real understanding of what pure functional programming is all about, along with applicable code examples. By the end of the book, you will be adept at building applications the functional way. Style and approach This book takes a pragmatic approach and shows you techniques to write better functional constructs in Golang. We'll also show you how use these concepts to build robust and testable apps.

What is artificial intelligence? How is artificial intelligence used in game development? Game development lives in its own technical world. It has its own idioms, skills, and challenges. That's one of the reasons games are so much fun to work on. Each game has its own rules, its own aesthetic, and its own trade-offs, and the hardware it will run on

keeps changing. AI for Games is designed to help you understand one element of game development: artificial intelligence (AI).

Good software design is simple and easy to understand. Unfortunately, the average computer program today is so complex that no one could possibly comprehend how all the code works. This concise guide helps you understand the fundamentals of good design through scientific laws—principles you can apply to any programming language or project from here to eternity. Whether you're a junior programmer, senior software engineer, or non-technical manager, you'll learn how to create a sound plan for your software project, and make better decisions about the pattern and structure of your system. Discover why good software design has become the missing science Understand the ultimate purpose of software and the goals of good design Determine the value of your design now and in the future Examine real-world examples that demonstrate how a system changes over time Create designs that allow for the most change in the environment with the least change in the software Make easier changes in the future by keeping your code simpler now Gain better knowledge of your software's behavior with more accurate tests

Get ready to dive headfirst into the world of programming! "Game Programming with Python, Lua, and Ruby" offers an in-depth look at these three flexible languages as they relate to creating games. No matter what your skill level as a programmer, this book provides the guidance you need. Each language is covered in its own section—you'll begin with the basics of syntax and style and then move on to more advanced topics. Follow along with each language or jump right to a specific section! Similar features in Python, Lua, and Ruby—including functions, string handling, data types, commenting, and arrays and strings—are examined. Learn how each language is used in popular game engines and projects, and jumpstart your programming expertise as you develop skills you'll use again and again!

Covering all major platforms—Linux, Unix, Mac OS X, and Windows—this guide shows programmers and power users how to customize an operating system, automate commands, and simplify administration tasks using shell scripts Offers complete shell-scripting instructions, robust code examples, and full scripts for OS customization Covers shells as a user interface, basic scripting techniques, script editing and debugging, graphing data, and simplifying administrative tasks In addition to Unix and Linux scripting, the book covers the latest Windows scripting techniques and offers a complete tutorial on Mac OS X scripting, including detailed coverage of mobile file systems, legacy applications, Mac text editors, video captures, and the Mac OS X Open Scripting Architecture

Xavier Blackwood is the man every girl at my college dreams about at night, myself included, but I'd never let anyone know that. Standing at 6'4" with steel grey eyes, he might look like a walking dream, but he acts like a first-class jerk. Who would have thought that one night, while dragging myself home after doing double shifts at the diner, I'd be jumped by three men...only to have Xavier come to my rescue. Oh yes, Xavier bloody Blackwood saved my life...but the thing I saw, the CREATURE that ripped those men to shreds, wasn't the Xavier everyone thinks they know. He wasn't human...He was a wolf, a demon, a creature from myth, but before I had time to process, he knocked me out too. Humans that learn about the existence of werewolves have to die....There are NO exceptions. The Werewolf Xavier saved me, but now I am condemned to death. To make things worse, both Xavier and Axel claim I am their mate....This can't be good.

The biggest challenge facing many game programmers is completing their game. Most game projects fizzle out, overwhelmed by the complexity of their own code. Game Programming Patterns tackles that exact problem. Based on years of experience in shipped AAA titles, this book collects proven patterns to untangle and optimize your game, organized as independent recipes so you can pick just the patterns you need. You will learn how to write a robust game loop, how to organize your entities using components, and take advantage of the CPUs cache to improve your performance. You'll dive deep into how scripting engines encode behavior, how quadrees and other spatial partitions optimize your engine, and how other classic design patterns can be used in games.

This book provides an in-depth insight into the emerging paradigm of End-User Development (EUD), discussing the diversity and potential for creating effective environments for end users. Containing a unique set of contributions from a number of international researchers and institutes, many relevant issues are discussed and solutions proposed, making important aspects of end-user development research available to a broader audience. Most people are familiar with the basic functionality and interfaces of computers. However, developing new or modified applications that can effectively support users' goals still requires considerable programming expertise that cannot be expected of everyone. One of the fundamental challenges that lie ahead is the development of environments that enable users with little or no programming experience to develop and modify their own applications. The ultimate goal is to empower people to flexibly employ and personalise advanced information and communication technologies.

A complete guide to designing and building fun games with Qt and 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, 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 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 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 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 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. 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 hardware-accelerated 2D and 3D 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 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-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 integrate gamepad support in C++ and QML applications Program resolution-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 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 knowledge of C++ is mandatory.

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