Free download Erlang programming francesco cesarini (Read Only)

if you need to build a scalable fault tolerant system with requirements for high availability discover why the erlang otp platform stands out for the breadth depth and consistency of its features this hands on guide demonstrates how to use the erlang programming language and its otp framework of reusable libraries tools and design principles to develop complex commercial grade systems that simply cannot fail in the first part of the book you'll learn how to design and implement process behaviors and supervision trees with erlang otp and bundle them into standalone nodes the second part addresses reliability scalability and high availability in your overall system design if you're familiar with erlang this book will help you understand the design choices and trade offs necessary to keep your system running explore otp's building blocks the erlang language tools and libraries collection and its abstract principles and design rules dive into the fundamentals of otp reusable frameworks the erlang process structures otp uses for behaviors understand how otp behaviors support client server structures finite state machine patterns event handling and runtime code integration write your own behaviors and special processes use otp's tools techniques and architectures to handle deployment monitoring and operations this book is an in depth introduction to erlang a programming language ideal for any situation where concurrency fault tolerance and fast response is essential erlang is gaining widespread adoption with the advent of multi core processors and their new scalable approach to concurrency with this guide you'll learn how to write complex concurrent programs in erlang regardless of your programming background or experience written by leaders of the international erlang community and based on their training material erlang programming focuses on the language's syntax and semantics and explains pattern matching proper lists recursion debugging networking and concurrency this book helps you understand the strengths of erlang and why its designers included specific features learn the concepts behind concurrency and erlang's way of handling it write efficient erlang programs while keeping code neat and readable discover how erlang fills the requirements for distributed systems add simple graphical user interfaces with little effort learn erlang's tracing mechanisms for debugging concurrent and distributed systems use the built in mnesia database and other table storage features erlang programming provides exercises at the end of each chapter and simple examples throughout the book get to know erlang the increasingly popular programming language widely known for its role in concurrency this in depth video introduces you to the language with several examples that demonstrate erlang in action learn the basics before diving into sequential programming error handling and support for concurrency then discover how erlang enables you to quickly and easily write massively concurrent highly available systems with a fraction of the effort of conventional programming languages a case study of a client server application shows you how to put these ideas into practice if you're new to erlang its functional style can seem difficult but with help from this hands on introduction you'll scale the learning curve and discover how enjoyable powerful and fun this language can be in this updated second edition author simon st laurent shows you
how to write simple erlang programs by teaching you one skill at a time you'll learn about pattern matching recursion message passing process oriented programming and establishing pathways for data rather than telling it where to go by the end of your journey you'll understand why erlang is ideal for concurrency and resilience get cozy with erlang's shell its command line interface define functions using the fun tool to represent repeated calculations discover atoms pattern matching and guards the foundations of your program structure delve into the heart of erlang processing with recursion strings lists and higher order functions create processes send messages among them and apply pattern matching to incoming messages store and manipulate structured data with erlang term storage and the mnesia database learn about open telecom platform erlang's open source libraries and tools elixir is an excellent language if you want to learn about functional programming and with this hands on introduction you'll discover just how powerful and fun elixir can be this language combines the robust functional programming of erlang with a syntax similar to ruby and includes powerful features for metaprogramming this book shows you how to write simple elixir programs by teaching one skill at a time once you pick up pattern matching process oriented programming and other concepts you'll understand why elixir makes it easier to build concurrent and resilient programs that scale up and down with ease get comfortable with iex elixir's command line interface discover atoms pattern matching and guards the foundations of your program structure delve into the heart of elixir with recursion strings lists and higher order functions create processes send messages among them and apply pattern matching to incoming messages store and manipulate structured data with erlang term storage and the mnesia database build resilient applications with erlang's open telecom platform define macros with elixir's metaprogramming tools the peer reviewed papers featured in this volume were chosen from the revised notes of lectures given at the third cefp school in 2009 they cover a number of topics such as design patterns semantics types and advanced programming in various fp languages this book constitutes the thoroughly refereed post conference proceedings of the 11th international symposium on trends in functional programming tfp 2010 held in norman ok usa in may 2010 the 13 revised full papers presented were carefully reviewed and selected from 26 submissions during two rounds of reviewing and improvement the papers cover new ideas for refactoring managing source code complexity functional language implementation graphical languages applications of functional programming in pure mathematics type theory multitasking and parallel processing distributed systems scientific modeling domain specific languages hardware design education and testing if you need to build a scalable fault tolerant system with requirements for high availability discover why the erlang otp platform stands out for the breadth depth and consistency of its features this book demonstrates how to use the erlang programming language and its otp framework of reusable libraries tools and design principles to develop complex commercial grade systems that simply cannot fail in the first part of the book you'll learn how to design and implement process behaviors and supervision trees with erlang otp and bundle them into standalone nodes the second part addresses reliability scalability and high availability in your overall system design if you're familiar with erlang this book will help you understand the design choices and trade offs necessary to keep your system running explore otp's building blocks the erlang language tools and libraries collection and its abstract principles and design rules dive into the fundamentals of otp reusable frameworks the erlang process structures otp uses for behaviors understand
how otp behaviors support client server structures finite state machine patterns event handling and runtime code integration write your own behaviors and special processes use otp s tools techniques and architectures to handle deployment monitoring and operations if you need to build a scalable fault tolerant system with requirements for high availability discover why the erlang otp platform stands out for the breadth depth and consistency of its features this hands on guide demonstrates how to use the erlang programming language and its otp framework of reusable libraries tools and design principles to develop complex commercial grade systems that simply cannot fail in the first part of the book you u2019ll learn how to design and implement process behaviors and supervision trees with erlang otp and bundle them into standalone nodes the second part addresses reliability scalability and high availability in your overall system design if you u2019re familiar with erlang this book will help you understand the design choices and trade offs necessary to keep your system running explore otp u2019s building blocks the erlang language tools and libraries collection and its abstract principles and design rules dive into the fundamentals of otp reusable frameworks the erlang process structures otp uses for behaviors understand how otp behaviors support client server structures finite state machine patterns event handling and runtime code integration write your own behaviors and special processes use otp u2019s tools techniques and architectures to handle deployment monitoring and operations why choose erlang for web applications discover the answer hands on by building a simple web service with this book if you re an experienced web developer who knows basic erlang you ll learn how to work with rest dynamic content web sockets and concurrency through several examples in the process you ll see first hand that erlang is ideal for building business critical services erlang was designed for fault tolerant non stop telecom systems and building applications with it requires a large set of skills by the end of the book you ll have the information you need to build a basic web service and get it running explore the power of erlang and rest for building web services serve static and dynamic content with the yaws web server use different methods for outputting data to user such as encoding erlang data structures into json or xml build an application to listen for http requests process them store data and return useful data go beyond the request response model push data to clients with web sockets use erlang and yaws to stream data from the server to a client which is truly needed and will help get erlang to the next level francesco cesarini ceo of erlang solutions author of erlang programming this book constitutes the thoroughly refereed revised selected papers of the 13th international symposium on trends in functional programming tfp 2012 held in st andrews scotland uk in june 2012 the 18 revised full papers included in this volume were carefully selected from 49 submissions and are complemented with an invited paper they cover various aspects of trends in functional programming icfp 09 acm sigplan international conference on functional programming aug 31 2009 sep 02 2009 edinburgh united kingdom you can view more information about this proceeding and all of acms other published conference proceedings from the acm digital library acm org dl whether you need a new tool or just inspiration seven frameworks in seven weeks explores modern options giving you a taste of each with ideas that will help you create better apps you ll see frameworks that leverage modern programming languages employ unique architectures live client side instead of server side or embrace type systems you ll see everything from familiar ruby and javascript to the more exotic erlang haskell and clojure the rapid evolution of web apps demands innovative solutions this survey of frameworks and their
unique perspectives will inspire you and get you thinking in new ways to meet the challenges you face daily. This book covers seven web frameworks that are influencing modern web applications and changing web development. Sinatra, CanJS, AngularJS, Webmachine, Yesod, Immutant, each of these web frameworks brings unique and powerful ideas to bear on building apps. Embrace the simplicity of Sinatra which sheds the trappings of large frameworks and gets back to basics with Ruby live in the client with CanJS and create apps with JavaScript in the browser. Be declarative with AngularJS and say what you want, not how to do it with a mixture of declarative HTML and JavaScript. Turn the web into data with Ring and use Clojure to make data your puppet. Become a master of advanced HTTP with Webmachine and focus the power of Erlang prove web theorems with Yesod. See how Haskell's advanced type system isn't just for academics develop in luxury with Immutant, an enlightened take on the enterprise framework. Seven frameworks will influence your work no matter which framework you currently use. Welcome to a wider web. What you need, you'll need Windows, MacOS, X, or Linux along with your favorite web browser. Each chapter will cover what you need to download and which language versions are required. If you have an imperative and probably object-oriented programming background, this hands-on book will guide you through the alien world of functional programming. Author Joshua Backfield begins slowly by showing you how to apply the most useful implementation concepts before taking you further into functional style concepts and practices. In each chapter, you'll learn a functional concept and then use it to refactor the fictional XXY company's imperative style legacy code. Writing and testing the functional code yourself as you progress through the book you'll migrate from Java 7 to Groovy and finally to Scala as the need for better functional language support gradually increases. Learn why today's finely tuned applications work better with functional code. Transform imperative style patterns into functional code following basic steps. Get up to speed with Groovy and Scala through examples. Understand how first class functions are passed and returned from other functions and loops into recursive methods change mutable variables into immutable variables. Get hands on experience with statements and nonstrict evaluations. Use functional programming alongside object-oriented design. This book introduces Haskell at a level appropriate for those with little or no prior experience of functional programming. The emphasis is on the process of crafting programs, solving problems, and avoiding common errors. Why choose Erlang for web applications? Discover the answer hands-on by building a simple web service with this book. If you're an experienced web developer who knows basic Erlang, you'll learn how to work with REST dynamic content, web sockets, and concurrency. Through several examples in the process you'll see first hand that Erlang is ideal for building business critical services. Erlang was designed for fault tolerant, non-stop telecom systems and building applications with it requires a large set of skills. By the end of the book, you'll have the information you need to build a basic web service and get it running. Explore the power of Erlang and REST for building web services. Serve static and dynamic content with the Yaws web server. Use different methods for outputting data to users such as encoding Erlang data structures into JSON or XML. Build an application to listen for HTTP requests, process them, store data and return useful data. Go beyond the request response model, push data to clients with web sockets. Use Erlang and Yaws to stream data from the server to a client. A book which is truly needed and will help get Erlang to the next level. Francesco Cesarini, CEO of Erlang Solutions, author of Erlang Programming, Behavioural type systems in programming.
languages support the specification and verification of properties of programs beyond the traditional use of type systems to describe data processing. A major example of such a property is correctness of communication in concurrent and distributed systems. Motivated by the importance of structured communication in modern software, behavioural types from theory to tools present programming languages and software tools produced by members of COST Action IC1201. Behavioural types for reliable large scale software systems, a European research network that was funded from October 2012 to October 2016, as a survey of the most recent developments in the application of behavioural type systems. It is a valuable reference for researchers in the field as well as an introduction to the area for graduate students and software developers. Learn and understand Erlang and Elixir and develop a working knowledge of the concepts of functional programming that underpin them. This book takes the author’s experience of taking on a project that required functional programming and real-time systems breaks it down and organizes it. You will get the necessary knowledge about differences to the languages you know where to start and where to go next. Have you been told by your customer or manager that they heard good things about Erlang? You should use it for the next project. Never had to deal with functional programming or real-time systems. In 2014, the author Wolfgang Loder developed a repository for digital assets that had to deliver those assets in binary form quickly and reliably being able to deal with at least hundreds of requests per second since he could decide the architecture and software stack of the solution. He immediately thought of Erlang and its libraries and started to evaluate this option. It was not long after that he discovered Elixir, which sits on top of the Erlang virtual machine and has features more palatable for non-functional programmers. Although it is a functional programming language itself, Erlang and Elixir for imperative programmers give you a basis for deciding whether the effort is viable for your next project. This book is partly a tale of the author’s own experience and partly a description of the bigger and more subtle differences between Erlang, Elixir, and languages such as C, Java, and C++ that you’ll learn. Discover functional programming, Erlang, and Elixir work on service design and service features. Set up your environment, deployment, development, and production. Implement the service including public interface asset processing and deployment. Use the patterns and concepts found in Erlang including type creation concepts and code structuring. 

Who this book is for: Experienced and savvy programmers, coders and developers new to Erlang and Elixir. As predicted by Gordon E. Moore in 1965, the performance of computer processors increased at an exponential rate. Nevertheless, the increases in computing speeds of single processor machines were eventually curtailed by physical constraints. This led to the development of parallel computing and whilst progress has been made in this field, the complexities of parallel algorithm design, the deficiencies of the available software development tools, and the complexity of scheduling tasks over thousands and even millions of processing nodes represent a major challenge to the construction and use of more powerful parallel systems. This book presents the proceedings of the biennial international conference on parallel computing, ParCo2015, held in Edinburgh, Scotland, in September 2015. Topics covered include computer architecture and performance, programming models, and methods, as well as applications. The book also includes two invited talks and a number of mini-symposia. Exascale computing holds enormous promise in terms of increasing scientific knowledge acquisition and thus contributing to the future well-being and prosperity of mankind. A number of innovative approaches to the development and use of future high-performance computing systems were discussed in the book.
and high throughput systems are to be found in this book which will be of interest to all those whose work involves the handling and processing of large amounts of data why choose erlang for web applications discover the answer hands on by building a simple web service with this book if you re an experienced web developer who knows basic erlang you ll learn how to work with rest dynamic content web sockets and concurrency through several examples in the process you ll see first hand that erlang is ideal for building business critical services erlang was designed for fault tolerant non stop telecom systems and building applications with it requires a large set of skills by the end of the book you ll have the information you need to build a basic web service and get it running explore the power of erlang and rest for building web services serve static and dynamic content with the yaws web server use different methods for outputting erlang data structures into json or xml build an application to listen for http requests process them store data and return useful data go beyond the request response model push data to clients with web sockets use erlang and yaws to stream data from the server to a client a book which is truly needed and will help get erlang to the next level francesco cesarini ceo of erlang solutions author of erlang programming beschrijving van vijfentwintig open source applicaties Эта книга познакомит вас с erlang языком программирования который идеально подходит для создания параллельных отказоустойчивых приложений предназначенных для работы в режиме реального времени С появлением многоядерных процессоров предоставляющих новые средства масштабирования распараллеленных приложений erlang становится все более популярным независимо от уровня предварительной подготовки вы сможете научиться написанию сложных параллельных приложений книга написана лидерами международного сообщества erlang в ней вы найдете подробное описание правильно построенных списков рекурсии отладки сетевого и параллельного программирования а также многих других аспектов синтаксиса и семантики языка erlang your software needs to leverage multiple cores handle thousands of users and terabytes of data and continue working in the face of both hardware and software failure concurrency and parallelism are the keys and seven concurrency models in seven weeks equips you for this new world see how emerging technologies such as actors and functional programming address issues with traditional threads and locks development learn how to exploit the parallelism in your computer s gpu and leverage clusters of machines with mapreduce and stream processing and do it all with the confidence that comes from using tools that help you write crystal clear high quality code this book will show you how to exploit different parallel architectures to improve your code s performance scalability and resilience you ll learn about seven concurrency models threads and locks functional programming separating identity and state actors sequential processes data parallelism and the lambda architecture learn about the perils of traditional threads and locks programming and how to overcome them through careful design and by working with the standard library see how actors enable software running on geographically distributed computers to collaborate handle failure and create systems that stay up 24 7 365 understand why shared mutable state is the enemy of robust concurrent code and see how functional programming together with
technologies such as software transactional memory STM and automatic parallelism help you tame it. You'll learn about the untapped potential within every GPU and how GPGPU software can unleash it. You'll see how to use MapReduce to harness massive clusters to solve previously intractable problems and how in concert with stream processing big data can be tamed with an understanding of the strengths and weaknesses of each of the different models and hardware architectures. You'll be empowered to tackle any problem with confidence.

What you need: The example code can be compiled and executed on NIX OS X or Windows. Instructions on how to download the supporting build systems are given in each chapter.

Python's simplicity lets you become productive quickly, but often this means you aren't using everything it has to offer. With the updated edition of this hands-on guide, you'll learn how to write effective modern Python 3 code by leveraging its best ideas. Don't waste time bending Python to fit patterns you learned in other languages. Discover and apply idiomatic Python 3 features beyond your past experience.

Author Luciano Ramalho guides you through Python's core language features and libraries and teaches you how to make your code shorter, faster, and more readable. Fluent Python, second edition, covers special methods—the key to the consistent behavior of Python objects. Data structures, sequences, sets, Unicode, and data classes functions as objects first class functions related design patterns and type hints in function declarations, object oriented idioms, composition, inheritance, mixins, interfaces, operator overloading, static typing, and protocols. Control flow, context managers, generators, coroutines, async, await, and thread pools. Metaprogramming properties, attribute descriptors, class decorators, and new class metaprogramming hooks that are simpler than metaclasses. Formal methods have been applied successfully to the verification of medium sized programs in protocol and hardware design for some time. However, their application to the development of large systems requires more emphasis on specification modeling and validation techniques supporting the concepts of reusability and modifiability and their implementation in new extensions of existing programming languages like Java. This book contains 20 revised papers submitted after the 10th Symposium on Formal Methods for Components and Objects FMCO 2011, which was held in Turin, Italy, in October 2011. Topics covered include autonomic service component ensembles, trustworthy eternal systems via evolving software, and knowledge parallel patterns for adaptive heterogeneous multicores systems programming for future 3D architectures with many cores. Formal verification of object oriented software and an infrastructure for reliable computer systems. Summary: The little Elixir OTP guidebook gets you started programming applications with Elixir and OTP. You begin with a quick overview of the Elixir language syntax along with just enough functional programming to use it effectively. Then you'll dive straight into OTP and learn how it helps you build scalable, fault tolerant, and distributed applications through several fun examples. Purchase of the print book includes a free eBook in PDF, Kindle, and EPUB formats.
several lighthearted examples that teach you to take advantage of the incredible functionality built into the otp library what s inside covers elixir 1 2 and 1 3 introduction to functional concurrency with actors experience the awesome power of erlang and otp about the reader written for readers comfortable with a standard programming language like ruby java or python fp experience is helpful but not required about the author benjamin tan wei hao is a software engineer at pivotal labs singapore he is also an author a speaker and an early adopter of elixir table of contents getting started with elixir and otp introduction a whirlwind tour processes 101 writing server applications with genserver fault tolerance supervision and distribution concurrent error handling and fault tolerance with links monitors and processes fault tolerance with supervisors completing the worker pool application distribution and load balancing distribution and fault tolerance dialyzer and type specifications property based and concurrency testing mit diesen sieben sprachen erkunden sie die wichtigsten programmiermodelle unserer zeit lernen sie die dynamische typisierung kennen die ruby python und perl so flexibel und verlockend macht lernen sie das prototyp system verstehen das das herzstück von javascript bildet erfahren sie wie das pattern matching in prolog die entwicklung von scala und erlang beeinflusst hat entdecken sie sie sich die rein funktionale programmierung in haskell von der lisp sprachfamilie inklusive clojure unterscheidet erkunden sie die parallelen techniken die das rückgrat der nächsten generation von internet anwendungen bilden werden finden sie ihre heraus wie man erlangs lass es abstürzen philosophie zum aufbau fehler toleranter systeme nutzt lernen sie das aktor modell kennen das das parallele design bei io und scala bestimmt entdecken sie wie clojure die versionierung nutzt um einige der schwierigsten probleme der nebenläufigkeit zu lösen hier finden sie alles in einem buch nutzen sie die konzepte einer sprache um kreative lösungen in einer anderen programmiersprache zu finden oder entdecken sie einfach eine sprache die sie bisher nicht kannten man kann nie wissen vielleicht wird sie sogar eines ihrer neuen lieblingswerkzeuge erlangの威力を最大限発揮させるための知識 php mysql von kopf bis fuß zu lesen ist wie unterricht bei einem coolen lehrer das lernen macht plötzlich spaß und sie freuen sich tatsächlich auf die nächste stunde in diesem abwechslungsreichen und visuell ansprechenden arbeitsbuch erfahren sie ganz praktisch wie sie mit php und mysql schnell eine datenbankbasierte website auf die beine stellen machen sie sich die hände schmutzig und bauen sie sofort echte anwendungen wie eine high score liste für ein computerspiel oder eine online dating site wenn sie dieses buch durchgearbeitet haben sind sie gut gerüstet und wissen wie man formulare validiert mit sitzungs ids und cookies arbeitet datenabfragen und joins durchführt dateioperationen vornimmt und vieles mehr javascript programmierung von kopf bis fuß zeigt ihnen alles von den javascript grundlagen bis hin zu fortgeschrittenen themen wie objekten funktionen und dem document object model des browsers sie werden nicht nur lesen sie werden spielen rätsel lösen über geheimnisse nachdenken und mit javascript auf unvorstellbare weise interagieren und sie werden echten code schreiben sehr viel sogar damit sie bald anfangen können ihre eigenen applikationen zu bauen in diesem buch sind die neuesten erkenntnisse der kognitionswissenschaft und der lerntheorie eingeflossen um ihnen das lernen so einfach wie möglich zu machen statt einschläfernder bleiwüsten verwendet dieses buch eine vielzahl von abbildungen und textstilen die ihnen das wissen direkt ins hirn spielen und zwar so dass es sitzt sie ist elegant schlank modern und flexibel die rede ist von scala der neuen programmiersprache für die java virtual machine jvm sie vereint die vorzüge funktionaler und
Designing for Scalability with Erlang/OTP

2016-05-16

if you need to build a scalable fault tolerant system with requirements for high availability discover why the erlang otp platform stands out for the breadth depth and consistency of its features this hands on guide demonstrates how to use the erlang programming language and its otp framework of reusable libraries tools and design principles to develop complex commercial grade systems that simply cannot fail in the first part of the book you ll learn how to design and implement process behaviors and supervision trees with erlang otp and bundle them into standalone nodes the second part addresses reliability scalability and high availability in your overall system design if you re familiar with erlang this book will help you understand the design choices and trade offs necessary to keep your system running explore otp s building blocks the erlang language tools and libraries collection and its abstract principles and design rules dive into the fundamentals of otp reusable frameworks the erlang process structures otp uses for behaviors understand how otp behaviors support client server structures finite state machine patterns event handling and runtime code integration write your own behaviors and special processes use otp s tools techniques and architectures to handle deployment monitoring and operations

Erlang Programming

2009-06-11

this book is an in depth introduction to erlang a programming language ideal for any situation where concurrency fault tolerance and fast response is essential erlang is gaining widespread adoption with the advent of multi core processors and their new scalable approach to concurrency with this guide you ll learn how to write complex concurrent programs in erlang regardless of your programming background or experience written by leaders of the international erlang community and based on their training material erlang programming focuses on the language s syntax and semantics and explains pattern matching proper lists recursion debugging networking and concurrency this book helps you understand the strengths of erlang and why its designers included specific features learn the concepts behind concurrency and erlang s way of handling it write efficient erlang programs while keeping code neat and readable discover how erlang fills the requirements for distributed systems add simple graphical user interfaces with little effort learn erlang s tracing mechanisms for
debugging concurrent and distributed systems use the built-in mnesia database and other table storage features erlang programming provides exercises at the end of each chapter and simple examples throughout the book

_Erlang by Example with Cesarini and Thompson_

2011

get to know erlang the increasingly popular programming language widely known for its role in concurrency this in depth video introduces you to the language with several examples that demonstrate erlang in action learn the basics before diving into sequential programming error handling and support for concurrency then discover how erlang enables you to quickly and easily write massively concurrent highly available systems with a fraction of the effort of conventional programming languages a case study of a client server application shows you how to put these ideas into practice

_Introducing Erlang_

2017-03-06

if you’re new to erlang its functional style can seem difficult but with help from this hands on introduction you’ll scale the learning curve and discover how enjoyable powerful and fun this language can be in this updated second edition author simon st laurent shows you how to write simple erlang programs by teaching you one skill at a time you’ll learn about pattern matching recursion message passing process oriented programming and establishing pathways for data rather than telling it where to go by the end of your journey you’ll understand why erlang is ideal for concurrency and resilience get cozy with erlang’s shell its command line interface define functions using the fun tool to represent repeated calculations discover atoms pattern matching and guards the foundations of your program structure delve into the heart of erlang processing with recursion strings lists and higher order functions create processes send messages among them and apply pattern matching to incoming messages store and manipulate structured data with erlang term storage and the mnesia database learn about open telecom platform erlang’s open source libraries and tools
Introducing Elixir

2014-09-10

elixir is an excellent language if you want to learn about functional programming and with this hands on introduction you'll discover just how powerful and fun elixir can be. This language combines the robust functional programming of erlang with a syntax similar to ruby and includes powerful features for metaprogramming. This book shows you how to write simple elixir programs by teaching one skill at a time. Once you pick up pattern matching, process oriented programming, and other concepts, you'll understand why elixir makes it easier to build concurrent and resilient programs that scale up and down with ease. Get comfortable with iex, elixir's command line interface. Discover atoms, pattern matching, and guards. The foundations of your program structure delve into the heart of elixir with recursion, strings, lists, and higher order functions. Create processes, send messages among them, and apply pattern matching to incoming messages. Store and manipulate structured data with erlang term storage and the mnesia database. Build resilient applications with erlang's open telecom platform. Define macros with elixir's metaprogramming tools.

Central European Functional Programming School

2011-01-04

The peer reviewed papers featured in this volume were chosen from the revised notes of lectures given at the third cefp school in 2009. They cover a number of topics such as design patterns, semantics, types, and advanced programming in various fp languages.

Trends in Functional Programming

2011-09-09

This book constitutes the thoroughly refereed post conference proceedings of the 11th international symposium on trends in functional programming tfp 2010 held in norman ok usa in
Designing for Scalability with Erlang/OTP

2016-05-16

if you need to build a scalable fault tolerant system with requirements for high availability discover why the erlang otp platform stands out for the breadth depth and consistency of its features this hands on guide demonstrates how to use the erlang programming language and its otp framework of reusable libraries tools and design principles to develop complex commercial grade systems that simply cannot fail in the first part of the book you’ll learn how to design and implement process behaviors and supervision trees with erlang otp and bundle them into standalone nodes the second part addresses reliability scalability and high availability in your overall system design if you’re familiar with erlang this book will help you understand the design choices and trade-offs necessary to keep your system running explore otp’s building blocks the erlang language tools and libraries collection and its abstract principles and design rules dive into the fundamentals of otp reusable frameworks the erlang process structures otp uses for behaviors understand how otp behaviors support client server structures finite state machine patterns event handling and runtime code integration write your own behaviors and special processes use otp’s tools techniques and architectures to handle deployment monitoring and operations

Designing for Scalability with Erlang/OTP

2016

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Building Web Applications with Erlang

2012-06-05

why choose erlang for web applications discover the answer hands on by building a simple web service with this book if you're an experienced web developer who knows basic erlang you'll learn how to work with rest dynamic content web sockets and concurrency through several examples in the process you'll see first hand that erlang is ideal for building business critical services erlang was designed for fault tolerant non stop telecom systems and building applications with it requires a large set of skills by the end of the book you'll have the information you need to build a basic web service and get it running explore the power of erlang and rest for building web services serve static and dynamic content with the yaws web server use different methods for outputting data to user such as encoding erlang data structures into json or xml build an application to listen for http requests process them store data and return useful data go beyond the request response model push data to clients with web sockets use erlang and yaws to stream data from the server to a client a book which is truly needed and will help get erlang to the next level francesco cesarini ceo of erlang solutions author of erlang programming

Trends in Functional Programming

2013-08-13

this book constitutes the thoroughly refereed revised selected papers of the 13th international symposium on trends in functional programming tfp 2012 held in st andrews scotland uk in june 2012 the 18 revised full papers included in this volume were carefully and selected from 49 submissions and are complemented with an invited paper they cover various aspects of
Seven Web Frameworks in Seven Weeks

2013-12-31

Whether you need a new tool or just inspiration, seven frameworks in seven weeks explores modern options giving you a taste of each with ideas that will help you create better apps. You’ll see frameworks that leverage modern programming languages, employ unique architectures, live client side instead of server side, or embrace type systems. You’ll see everything from familiar Ruby and JavaScript to the more exotic Erlang, Haskell, and Clojure. The rapid evolution of web apps demands innovative solutions. This survey of frameworks and their unique perspectives will inspire you and get you thinking in new ways to meet the challenges you face daily. This book covers seven web frameworks that are influencing modern web applications and changing web development. Sinatra, CanJS, AngularJS, Ring, Webmachine, Yesod, and Immutant each of these web frameworks brings unique and powerful ideas to bear on building apps. Embrace the simplicity of Sinatra which sheds the trappings of large frameworks and gets back to basics with Ruby live in the client with CanJS and create apps with JavaScript in the browser. Be declarative with AngularJS, say what you want not how to do it, with a mixture of declarative HTML and JavaScript, turn the web into data. Use Clojure to make data your puppet become a master of advanced HTTP with Webmachine and focus the power of Erlang prove web theorems with Yesod, see how Haskell’s advanced type system isn’t just for academics develop in luxury with Immutant, an enlightened take on the enterprise framework. Seven frameworks will influence your work no matter which framework you currently use. Welcome to a wider web what you need you’ll need Windows, macOS, or Linux along with your favorite web browser. Each chapter will cover what you need to download and which language versions are required.
**Becoming Functional**

2014-07-02

if you have an imperative and probably object oriented programming background this hands on book will guide you through the alien world of functional programming author joshua backfield begins slowly by showing you how to apply the most useful implementation concepts before taking you further into functional style concepts and practices in each chapter you ll learn a functional concept and then use it to refactor the fictional xxy company s imperative style legacy code writing and testing the functional code yourself as you progress through the book you ll migrate from java 7 to groovy and finally to scala as the need for better functional language support gradually increases learn why today s finely tuned applications work better with functional code transform imperative style patterns into functional code following basic steps get up to speed with groovy and scala through examples understand how first class functions are passed and returned from other functions convert existing methods into pure functions and loops into recursive methods change mutable variables into immutable variables get hands on experience with statements and nonstrict evaluations use functional programming alongside object oriented design

**Haskell**

2011

this books introduces haskell at a level appropriate for those with little or no prior experience of functional programming the emphasis is on the processof crafting programs solving problems and avoiding common errors

**Building Web Applications with Erlang**

2012

why choose erlang for web applications discover the answer hands on by building a simple web service with this book if you re an experienced web developer who knows basic erlang
you'll learn how to work with REST, dynamic content, web sockets, and concurrency through several examples. In the process, you'll see firsthand that Erlang is ideal for building business-critical services. Erlang was designed for fault-tolerant, non-stop telecom systems, and building applications with it requires a large set of skills. By the end of the book, you'll have the information you need to build a basic web service and get it running. Explore the power of Erlang and REST for building web services, serve static and dynamic content with the Yaws web server, use different methods for outputting data to users such as encoding Erlang data structures into JSON or XML. Build an application to listen for HTTP requests, process them, store data, and return useful data. Go beyond the request-response model with web sockets. Use Erlang and Yaws to stream data from the server to the client. A book which is truly needed and will help get Erlang to the next level. Francesco Cesarini, CEO of Erlang Solutions, author of Erlang Programming.

**Behavioural Types**

2022-09-01

Behavioural type systems in programming languages support the specification and verification of properties of programs beyond the traditional use of type systems to describe data processing. A major example of such a property is correctness of communication in concurrent and distributed systems. Motivated by the importance of structured communication in modern software, behavioural types from theory to tools presents programming languages and software tools produced by members of COST Action IC1201 on behavioural types for reliable large-scale software systems. A European research network funded from October 2012 to October 2016, as a survey of the most recent developments in the application of behavioural type systems. It is a valuable reference for researchers in the field as well as an introduction to the area for graduate students and software developers.

**Erlang and Elixir for Imperative Programmers**

2016-11-26

Learn and understand Erlang and Elixir and develop a working knowledge of the concepts of functional programming that underpin them. This book takes the author's experience of taking on a project that required functional programming and real-time systems. Breaks it down and organizes it so you get the necessary knowledge about differences to the languages you know where to start and where to go next. Have you been told by your customer or manager that they heard good things about Erlang? You should use it for the next project, never had to.
deal with functional programming or real time systems in 2014 the author wolfgang loder developed a repository for digital assets that had to deliver those assets in binary form quickly and reliably being able to deal with at least hundreds of requests per second since he could decide the architecture and software stack of the solution he immediately thought of erlang and its libraries and started to evaluate this option it was not long after that he discovered elixir which sits on top of the erlang virtual machine and has features more palatable for non functional programmers although it is a functional programming language itself erlang and elixir for imperative programmers gives you a basis for deciding whether the effort is viable for your next project this book is partly a tale of the author s own experience and partly a description of the bigger and more subtle differences between erlang elixir and languages such as c java and c what you ll learn discover functional programming erlang and elixir work on service design and service features set up your environment deployment development and production implement the service including public interface asset processing and deployment use the patterns and concepts found in erlang including type creation concepts and code structuring who this book is for experienced and savvy programmers coders and developers new to erlang and elixir

**Parallel Computing: On the Road to Exascale**

2016-04-28

as predicted by gordon e moore in 1965 the performance of computer processors increased at an exponential rate nevertheless the increases in computing speeds of single processor machines were eventually curtailed by physical constraints this led to the development of parallel computing and whilst progress has been made in this field the complexities of parallel algorithm design the deficiencies of the available software development tools and the complexity of scheduling tasks over thousands and even millions of processing nodes represent a major challenge to the construction and use of more powerful parallel systems this book presents the proceedings of the biennial international conference on parallel computing parco2015 held in edinburgh scotland in september 2015 topics covered include computer architecture and performance programming models and methods as well as applications the book also includes two invited talks and a number of mini symposia exascale computing holds enormous promise in terms of increasing scientific knowledge acquisition and thus contributing to the future well being and prosperity of mankind a number of innovative approaches to the development and use of future high performance and high throughput systems are to be found in this book which will be of interest to all those whose work involves the handling and processing of large amounts of data
why choose erlang for web applications discover the answer hands on by building a simple web service with this book if you're an experienced web developer who knows basic erlang you'll learn how to work with rest dynamic content web sockets and concurrency through several examples in the process you'll see first hand that erlang is ideal for building business critical services erlang was designed for fault tolerant non stop telecom systems and building applications with it requires a large set of skills by the end of the book you'll have the information you need to build a basic web service and get it running explore the power of erlang and rest for building web services serve static and dynamic content with the yaws web server use different methods for outputting data to user such as encoding erlang data structures into json or xml build an application to listen for http requests process them store data and return useful data go beyond the request response model push data to clients with web sockets use erlang and yaws to stream data from the server to a client a book which is truly needed and will help get erlang to the next level francesco cesarini ceo of erlang solutions author of erlang programming

The Architecture of Open Source Applications

beschrijving van vijftwintig open source applicaties

Эта книга познакомит вас с erlang языком программирования который идеально подходит для создания параллельных отказоустойчивых приложений предназначенных для работы в режиме реального времени С появлением многоядерных
Seven Concurrency Models in Seven Weeks

2014-06-30

your software needs to leverage multiple cores handle thousands of users and terabytes of data and continue working in the face of both hardware and software failure concurrency and parallelism are the keys and seven concurrency models in seven weeks equips you for this new world see how emerging technologies such as actors and functional programming address issues with traditional threads and locks development learn how to exploit the parallelism in your computer s gpu and leverage clusters of machines with mapreduce and stream processing and do it all with the confidence that comes from using tools that help you write crystal clear high quality code this book will show you how to exploit different parallel architectures to improve your code s performance scalability and resilience you ll learn about seven concurrency models threads and locks functional programming separating identity and state actors sequential processes data parallelism and the lambda architecture learn about the perils of traditional threads and locks programming and how to overcome them through careful design and by working with the standard library see how actors enable software running on geographically distributed computers to collaborate handle failure and create systems that stay up 24 7 365 understand why shared mutable state is the enemy of robust concurrent code and see how functional programming together with technologies such as software transactional memory stm and automatic parallelism help you tame it you ll learn about the untapped potential within every gpu and how gpgpu software can unleash it you ll see how to use mapreduce to harness massive clusters to solve previously intractable problems and how in concert with stream processing big data can be tamed with an understanding of the strengths and weaknesses of each of the different models and hardware architectures you ll be empowered to tackle any problem with confidence what you need the example code can be compiled and executed on nix os x or windows instructions on how to download the supporting build systems are given in each chapter
Fluent Python

2022-03-31

python s simplicity lets you become productive quickly but often this means you aren t using everything it has to offer with the updated edition of this hands on guide you ll learn how to write effective modern python 3 code by leveraging its best ideas don t waste time bending python to fit patterns you learned in other languages discover and apply idiomatic python 3 features beyond your past experience author luciano ramalho guides you through python s core language features and libraries and teaches you how to make your code shorter faster and more readable featuring major updates throughout the book fluent python second edition covers special methods the key to the consistent behavior of python objects data structures sequences dicts sets unicode and data classes functions as objects first class functions related design patterns and type hints in function declarations object oriented idioms composition inheritance mixins interfaces operator overloading static typing and protocols control flow context managers generators coroutines async await and thread process pools metaprogramming properties attribute descriptors class decorators and new class metaprogramming hooks that are simpler than metaclasses

Formal Methods for Components and Objects

2013-01-05

formal methods have been applied successfully to the verification of medium sized programs in protocol and hardware design for some time however their application to the development of large systems requires more emphasis on specification modeling and validation techniques supporting the concepts of reusability and modifiability and their implementation in new extensions of existing programming languages like java this book contains 20 revised papers submitted after the 10th symposium on formal methods for components and objects fmco 2011 which was held in turin italy in october 2011 topics covered include autonomic service component ensembles trustworthy eternal systems via evolving software data and knowledge parallel patterns for adaptive heterogeneous multicore systems programming for future 3d architectures with many cores formal verification of object oriented software and an infrastructure for reliable computer systems
The Little Elixir & OTP Guidebook

2016-09-25

summary the little elixir otp guidebook gets you started programming applications with elixir and otp you begin with a quick overview of the elixir language syntax along with just enough functional programming to use it effectively then you'll dive straight into otp and learn how it helps you build scalable fault tolerant and distributed applications through several fun examples purchase of the print book includes a free ebook in pdf kindle and epub formats from manning publications about the technology elixir is an elegant programming language that combines the expressiveness of ruby with the concurrency and fault tolerance of erlang it makes full use of erlang s beam vm and otp library so you get two decades worth of maturity and reliability right out of the gate elixir's support for functional programming makes it perfect for modern event driven applications about the book the little elixir otp guidebook gets you started writing applications with elixir and otp you'll begin with the immediately comfortable elixir language syntax along with just enough functional programming to use it effectively then you'll dive straight into several lighthearted examples that teach you to take advantage of the incredible functionality built into the otp library what's inside covers elixir 1.2 and 1.3

introduction to functional concurrency with actors experience the awesome power of erlang and otp about the reader written for readers comfortable with a standard programming language like ruby java or python fp experience is helpful but not required about the author benjamin tan wei hao is a software engineer at pivotal labs singapore he is also an author a speaker and an early adopter of elixir table of contents getting started with elixir and otp introduction a whirlwind tour processes 101 writing server applications with genserver fault tolerance supervision and distribution concurrent error handling and fault tolerance with links monitors and processes fault tolerance with supervisors completing the worker pool application distribution and load balancing distribution and fault tolerance dialyzer and type specifications property based and concurrency testing

Mentale und physische Gesundheit im Alter

2020-04-20

mit diesen sieben sprachen erkunden sie die wichtigsten programmiermodelle unserer zeit lernen sie die dynamische typisierung kennen die ruby python und perl so flexibel und verlockend macht lernen sie das prototyp system verstehen das das herzstück von javascript bildet erfahren sie wie das pattern matching in prolog die entwicklung von scala und erlang
beeinflusst hat entdecken sie wie sich die rein funktionale programmierung in haskell von der lisp sprachfamilie inklusive clojure unterscheidet entwickelt sie die parallelen techniken die das rückgrat der nächsten generation von internet anwendungen bilden werden finden sie heraus wie man erlangs lass es abstürzen philosophie zum aufbau fehlertoleranter systeme nutzt lernen sie das aktor modell kennen das das parallele design bei io und scala bestimmt entdecken sie wie clojure die versionierung nutzt um einige der schwierigsten probleme der nebenläufigkeit zu lösen hier finden sie alles in einem buch nutzen sie die konzepte einer sprache um kreative lösungen in einer anderen programmiersprache zu finden oder entdecken sie einfach eine sprache die sie bisher nicht kannten man kann nie wissen vielleicht wird sie sogar eines ihrer neuen lieblingswerkzeuge

Sieben Wochen, sieben Sprachen (Prags)

2011-06-30

erlangの威力を最大限発揮させるための知識

ACM SIGPLAN Erlang Workshop

2005

php mysql von kopf bis fuß zu lesen ist wie unterricht bei einem coolen lehrer das lernen macht plötzlich Spaß und sie freuen sich tatsächlich auf die nächste stunde in diesem abwechslungsreichen und visuell ansprechenden arbeitsbuch erfahren sie ganz praktisch wie sie mit php und mysql schnell eine datenbankbasierte website auf die beine stellen machen sie sich die hände schmutzig und bauen sie sofort echte anwendungen wie eine high score liste für ein computerspiel oder eine online dating site wenn sie dieses buch durchgearbeitet haben sind sie gut gerüstet und wissen wie man formulare validiert mit sitzungs ids und cookies arbeitet datenabfragen und joins durchführt dateioperationen vornimmt und vieles mehr
Erlangプログラミング

2010-07

javascript programmierung von kopf bis fuß zeigt ihnen alles von den javascript grundlagen bis hin zu fortgeschrittenen themen wie objekten funktionen und dem document object model des browsers sie werden nicht nur lesen sie werden spielen rätsel lösen über geheimnisse nachdenken und mit javascript auf unvorstellbare weise interagieren und sie werden echten code schreiben sehr viel sogar damit sie bald anfangen können ihre eigenen applikationen zu bauen in diesem buch sind die neuesten erkenntnisse der kognitionswissenschaft und der lerntheorie eingeflossen um ihnen das lernen so einfach wie möglich zu machen statt einschläfernder bleiwüsten verwendet dieses buch eine vielzahl von abbildungen und textstilen die ihnen das wissen direkt ins him spielen und zwar so dass es sitzt

PHP & MySQL von Kopf bis Fuss

2009

sie ist elegant schlank modern und flexibel die rede ist von scala der neuen programmiersprache für die java virtual machine jvm sie vereint die vorzüge funktionaler und objektorientierter programmierung ist typsicherer als java lässt sich nahtlos in die java welt integrieren und eine in scala entwickelte anwendung benötigt oft nur einen bruchteil der codezeilen ihres java pendants kein wunder dass immer mehr firmen deren große geschäfts kritische anwendungen auf java basieren auf scala umsteigen um ihre produktivität und die skalierbarkeit ihrer software zu erhöhen das wollen sie auch dann lassen sie sich von den scala profis dean wampler und alex payne zeigen wie es geht ihre werkzeugkiste schon bevor sie loslegen sind sie weiter als sie denken sie können ihre java programme weiter verwenden java bibliotheken nutzen java von scala aus aufrufen und scala von java aus auch ihre bevorzugten entwicklungswerkzeuge wie netbeans intellij idea oder eclipse stehen ihnen weiter zur verfügung dazu kommandozeilen tools plugins für editoren werkzeuge von drittanbietern und natürlich ihre programmiererfahrung in programmieren mit scala erfahren sie wie sie sich all das zunutze machen das hybridmodell die paradigmengrenzen verbessern und objektorientiert sind keine gegensätze sondern ergänzen sich unter dem scala dach zu einem sehr produktiven ganzen nutzen sie die vorteile funktionaler programmierung wann immer sich das anbietet und seien sie so frei auf die guten alten seiten effekte zu bauen wenn sie das für nötig halten futter für die profis skalierbare nebenläufigkeit mit aktoren aufzucht und pflege von xml mit scala
domainspezifische sprachen tipps zum richtigen anwendungsdesign das sind nur ein paar der fortgeschrittenen themen in die sie mit den beiden autoren eintauchen danach sind sie auch
profi im programmieren mit scala

JavaScript-Programmierung von Kopf bis Fuß

2014-10

im zuge der französischen expansion um 1800 wurden große gebiete als départements dem empire angegliedert nach und nach wurden diese für eine ganz unterschiedliche dauer vom
reformwerk der französischen revolution erfasst privilegien von kirche und adel wurden abgeschafft und die wirtschaftsordnung liberalisiert die bürger sollten rechtlich gleichgestellt werden
die napoleonische herrschaft wies jedoch beträchtliche phasenverschiebungen auf die von den militärischen und politischen ereignissen geprägt waren hinzu kamen unterschiede die auf
den geographischen und politischen stellenwert der jeweiligen region im napoleonischen herrschaftsentwurf zurückzuführen sind der vorliegende band möchte den charakter der
napoleonischen herrschaft im spannungsfeld von eroberungs und integrationspolitik neu bestimmen unter berücksichtigung zentraler aspekte raum und politik gesellschaft und krieg
wirtschaft und umwelt repräsentation und nachleben das geographische spektrum der beiträge reicht vom rheinland über die schweiz piemont ligurien und rom bis nach süditalien

Report on the Italian Credit and Financial System

1983

covers hundreds of international organizations offers historical governmental and economic data on countries and territories and provides names and addresses of political religious
financial and tourist figures and institutions
Programmieren mit Scala
2010

Napoleonische Expansionspolitik
2013-03-22

The Europa Year Book
1988

Concurrent programming in Java
1997

Java in a nutshell
2003
The Europa World Year Book 1993

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