Clojure Programming Practical Lisp For The Java World

The two-volume set LNAI 7267 and 7268 (together with LNCS 7269) constitutes the refereed proceedings of the 11th International Conference on Artificial Intelligence and Soft Computing, ICAISC 2012, held in Zakopane, Poland in April/ May 2012. The 212 revised full papers presented were carefully reviewed and selected from 483 submissions. The papers are organized in topical sections on neural networks and their applications, computer vision, image and speech analysis, data mining, hardware implementation, bioinformatics, biometrics and medical applications, concurrent parallel processing, agent systems, robotics and control, artificial intelligence in modeling and simulation, various problems od artificial intelligence.

"This book presents current research on all aspects of domain-specific language for scholars and practitioners in the software engineering fields, providing new results and answers to open problems in DSL research"--

Programming Language Explorations is a tour of several modern programming languages in use today. The book teaches fundamental language concepts using a language-by-language approach. As each language is presented, the authors introduce new concepts as they appear, and revisit familiar ones, comparing their implementation with those from languages seen in prior chapters. The goal is to present and explain common theoretical concepts of language design and usage, illustrated in the context of practical language overviews. Twelve languages have been carefully chosen to illustrate a wide range of programming styles and paradigms. The book introduces each language with a common trio of example programs, and continues with a brief tour of its basic elements, type system, functional forms, scoping rules, concurrency patterns, and sometimes, metaprogramming facilities. Each language chapter ends with a summary, pointers to open source projects, references to materials for further study, and a collection of exercises, designed as further explorations. Following the twelve featured language chapters, the authors provide a brief tour of over two dozen additional languages, and a summary chapter bringing together many of the questions explored throughout the text. Targeted to both professionals and advanced college undergraduates looking to expand the range of languages and programming patterns they can apply in their work and studies, the book pays attention to modern programming practice, covers cutting-edge languages and patterns, and provides many runnable examples, all of which can be found in an online GitHub repository. The exploration style places this book between a tutorial and a reference, with a focus on the concepts and practices underlying programming language design and usage. Instructors looking for material to supplement a programming languages or software engineering course may find the approach unconventional, but hopefully, a lot more fun.

This book is the first definitive reference for the Clojure language, providing both an introduction to functional programming in general and a more specific introduction to Clojure's features. This book demonstrates the use of the language through examples, including features such as software transactional memory (STM) and immutability, which may be new to programmers coming from other languages. Overview of functional programming and description of what sets Clojure apart from other languages Detailed explanation of Clojure's special features Examples of real-world tasks that are well-suited to Clojure's capabilities, starting with simple tasks and moving on to more complex applications

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In a down-to-the earth manner, the volume lucidly presents how the fundamental concepts, methodology, and algorithms of Computational Intelligence are efficiently exploited in Software Engineering and opens up a novel and promising avenue of a comprehensive analysis and advanced design of software artifacts. It shows how the paradigm and the best practices of Computational Intelligence can be creatively explored to carry out comprehensive software requirement analysis, support design, testing, and maintenance. Software Engineering is an intensive knowledge-based endeavor of inherent human-centric nature, which profoundly relies on acquiring semiformal knowledge and then processing it to produce a running system. The knowledge spans a wide variety of artifacts, from requirements, captured in the interaction with customers, to design practices, testing, and code management strategies, which rely on the knowledge of the running system. This volume consists of contributions written by widely acknowledged experts in the field who reveal how the Software Engineering benefits from the key foundations and synergistically existing technologies of Computational Intelligence being focused on knowledge representation, learning mechanisms, and population-based global optimization strategies. This book can serve as a highly useful reference material for researchers, software engineers and graduate students and senior undergraduate students in Software Engineering and its sub-disciplines, Internet engineering, Computational Intelligence, management, operations research, and knowledge-based systems.

Get up to speed with Clojure in this quick and practical primer. You'll learn the nuts and bolts of functional programming, data structures, sequences, destructuring, pattern matching, polymorphism, concurrency, conventions, and more. Author Mark McDonnell talks about organization with namespaces; how to change the language via macros; object-oriented programming; and creating command-line apps. Finally, he shows you how to write Clojure from shell languages and interfaces such as Vim. After reading and using Quick Clojure, you'll come away with first-hand knowledge and advice on how to quickly adopt, use, and apply Clojure without all the theoretical baggage that bigger books can sometimes bring. What You'll Learn Work with data structures and their syntax Discover OOP in Clojure with patterns, polymorphisms, pattern matching, and concurrency Use conventions, organization, and namespaces in Clojure Create command-line apps Build various Clojure projects with the Leiningen IDE tool and framework Who This Book Is For Programmers with experience. A Java background would be helpful, but not required.

????Tim Peierls?Joshua Bloch?Joseph Bowbeer?David Holmes?Doug Lea

Annotation 'Professional Clojure' is the experienced developer's guide to functional programming using the Clojure language. Designed specifically to meet the needs of professional developers, it briefly introduces functional programming before skipping directly to the heart of using Clojure in a real-world setting.

Paradigms of AI Programming is the first text to teach advanced Common Lisp techniques in the context of building major AI systems. By

reconstructing authentic, complex AI programs using state-of-the-art Common Lisp, the book teaches students and professionals how to build and debug robust practical programs, while demonstrating superior programming style and important AI concepts. The author strongly emphasizes the practical performance issues involved in writing real working programs of significant size. Chapters on troubleshooting and efficiency are included, along with a discussion of the fundamentals of object-oriented programming and a description of the main CLOS functions. This volume is an excellent text for a course on AI programming, a useful supplement for general AI courses and an indispensable reference for the professional programmer.

A fully revised edition that covers the new features available in Clojure 1.6. About the Technology Clojure is a modern Lisp for the JVM. It has the strengths you expect: first-class functions, macros, and Lisp's clean programming style. It supports functional programming, making it ideal for concurrent programming and for creating domain-specific languages. Clojure lets you solve harder problems, make faster changes, and end up with a smaller code base. It's no wonder that there are so many Clojure success stories. About the Book Clojure in Action, Second Edition is an expanded and improved version that's been updated to cover the new features of Clojure 1.6. The book gives you a rapid introduction to the Clojure language, moving from abstract theory to practical examples. You'll start by learning how to use Clojure as a general-purpose language. Next, you'll explore Clojure's efficient concurrency model, based on the database concept of Software Transactional Memory (STM). You'll gain a new level of productivity through Clojure DSLs that can run on the JVM. Along the way, you'll learn countless tips, tricks, and techniques for writing smaller, safer, and faster code. What's Inside Functional programming basics Metaprogramming with Clojure's macros Interoperating with Java Covers Clojure 1.6 About the Reader Assumes readers are familiar with a programming language like C, Java, Ruby, or Python. About the Authors Amit Rathore has 12 years of experience building large-scale, data-heavy applications for a variety of domains. Francis Avila is a software developer at Breeze with seven years of experience in back- and front-end web development.

Cut through the noise and get real results with a step-by-step approach to learning Clojure programming Key Features Ideal for the Clojure beginner who is getting started for the first time A step-by-step Clojure tutorial with exercises and activities that help build key skills Structured to let you progress at your own pace, on your own terms Use your physical print copy to redeem free access to the online interactive edition Book Description You already know you want to learn Clojure, and a smarter way to learn Clojure is to learn by doing. The Clojure Workshop focuses on building up your practical skills so that you can write clean, expressive code with a language that is great for applications where concurrency and interoperability with the JVM are a priority. You'll learn from real examples that lead to real results. Throughout The Clojure Workshop, you'll take an engaging step-by-step approach to understanding Clojure. You won't have to sit through any unnecessary theory. If you're short on time you can jump into a single exercise each day or spend an entire weekend learning about Clojure web development with Ring. It's your choice. Learning on your terms, you'll build up and reinforce key skills in a way that feels rewarding. Every physical print copy of The Clojure Workshop unlocks access to the interactive edition. With videos detailing all exercises and activities, you'll always have a guided solution. You can also benchmark yourself against assessments, track progress, and receive content updates. You'll even earn a secure credential that you can share and verify online upon completion. It's a premium learning experience that's included with your printed copy. To redeem, follow the instructions located at the start of your Clojure book. Fast-paced and direct, The Clojure Workshop is the ideal for Clojure beginners. You'll build and iterate on your code like a software developer , learning along the way. This process means that you'll find that your new skills stick, embedded as best practice. A solid foundation for the years ahead. What you will learn Learn about Clojure fundamentals like functional programming Understand and implement common Clojure patterns and best practices Explore Clojure's testing infrastructure and the clojure.test library Build a client-server application with Clojure and ClojureScript Learn how to debug and resolve errors and exceptions Explore Ring - Clojure's interface and library for building web applications Who this book is for Our goal at Packt is to help you be successful, in whatever it is you choose to do. The Clojure Workshop is an ideal Clojure tutorial for the Clojure beginner who is just getting started. Pick up a Workshop today, and let Packt help you develop skills that stick with you for life.

Website security made easy. This book covers the most common ways websites get hacked and how web developers can defend themselves. The world has changed. Today, every time you make a site live, you're opening it up to attack. A first-time developer can easily be discouraged by the difficulties involved with properly securing a website. But have hope: an army of security researchers is out there discovering, documenting, and fixing security flaws. Thankfully, the tools you'll need to secure your site are freely available and generally easy to use. Web Security for Developers will teach you how your websites are vulnerable to attack and how to protect them. Each chapter breaks down a major security vulnerability and explores a real-world attack, coupled with plenty of code to show you both the vulnerability and the fix. You'll learn how to: • Protect against SQL injection attacks, malicious JavaScript, and cross-site request forgery • Add authentication and shape access control to protect accounts • Lock down user accounts to prevent attacks that rely on guessing passwords, stealing sessions, • or escalating privileges • Implement encryption • Manage vulnerabilities in legacy code • Prevent information leaks that disclose vulnerabilities • Mitigate advanced attacks like malvertising and denial-of-service As you get stronger at identifying and fixing vulnerabilities, you'll learn to deploy disciplined, secure code and become a better programmer along the way.

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This open access two-volume set constitutes the proceedings of the 26th International Conference on Tools and Algorithms for the Construction and Analysis of Systems, TACAS 2020, which took place in Dublin, Ireland, in April 2020, and was held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2020. The total of 60 regular papers presented in these volumes was carefully reviewed and selected from 155 submissions. The papers are organized in topical sections as follows: Part I: Program verification; SAT and SMT; Timed and Dynamical Systems; Verifying Concurrent Systems; Probabilistic Systems; Model Checking and Reachability; and Timed and Probabilistic Systems. Part II: Bisimulation; Verification and Efficiency; Logic and Proof; Tools and Case Studies; Games and Automata; and SV-COMP 2020.

This is the most authoritative and accessible single-volume reference book on applied mathematics. Featuring numerous entries by leading experts and organized thematically, it introduces readers to applied mathematics and its uses; explains key concepts; describes important equations, laws, and functions; looks at exciting areas of research; covers modeling and simulation; explores areas of application; and more. Modeled on the popular Princeton Companion to Mathematics, this volume is an indispensable resource for undergraduate and graduate students, researchers, and practitioners in other disciplines seeking a user-friendly reference book on applied mathematics. Features nearly 200 entries organized thematically and written by an international team of distinguished contributors Presents the major ideas and branches of applied mathematics in a clear and accessible way Explains important mathematical concepts, methods, equations, and applications Introduces the language of applied mathematics and the goals of applied mathematical research Gives a wide range of examples of mathematical modeling Covers continuum mechanics, dynamical systems, numerical analysis, discrete and combinatorial mathematics, mathematical physics, and much more Explores the connections between applied mathematics and other disciplines Includes suggestions for further reading, cross-references, and a comprehensive index

This book constitutes the post conference proceedings of the 7th International Workshop on Enterprise and Organizational Modeling and Simulation, EOMAS 2011, held in conjunction with CAiSE 2011 in London, UK, in June 2011. Enterprises are purposefully designed systems used to fulfill certain functions. An extended enterprise and organizational study involves both analysis and design activities, in which modeling and simulation play prominent roles. The related techniques and methods are effective, efficient, economic, and widely used in

enterprise engineering, organizational study, and business process management. The 14 contributions in this volume were carefully reviewed and selected from 29 submissions, and they explore these topics, address the underlying challenges, find and improve on solutions, and demonstrate the application of modeling and simulation in the domains of enterprises, their organizations and underlying business processes. This book constitutes the refereed proceedings of the Third International Conference on Simulation, Modeling, and Programming for Autonomous Robots, SIMPAR 2012, held in Tsukuba, Japan, in November 2012. The 33 revised full papers and presented together with 3 invited talks were carefully reviewed and selected from 46 submissions. Ten papers describe design of complex behaviors of autonomous robots, 9 address software layers, 8 papers refer to related modeling and learning. The papers are organized in topical sections on mobile robots, software modeling and architecture and humanoid and biped robots.

The Web Development Glossary is probably the largest of its kind. With more than 2,000 terms and explanations it acquaints and reunites you with the major standards and concepts of the Web, with HTML, CSS, JavaScript, accessibility, security, performance, code quality, internationalization, localization, editors and tooling and more. The glossary then goes beyond web development, touching on computer science, design, typography, usability and user experience, information as well as project management, other disciplines of interest and relevance to the modern developer. It goes beyond, inspiring the curiosity to learn more about the Web and the people creating and using it. And still it is a glossary, of a couple of thousand terms for developers, leaning on (and giving back to) Wikipedia and the MDN Web Docs. ? This is the book if you choose to extend and validate your web and software development knowledge.

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Clojure is a new version of Lisp that runs on the Java Virtual Machine. "Clojure in Action" is a hands-on tutorial for the working programmer who has written code in a language like Java or Ruby, but has no prior experience with Lisp.

For weeks, months—nay!—from the very moment you were born, you've felt it calling to you. At long last you'll be united with the programming language you've been longing for: Clojure! As a Lisp-style functional programming language, Clojure lets you write robust and elegant code, and because it runs on the Java Virtual Machine, you can take advantage of the vast Java ecosystem. Clojure for the Brave and True offers a "dessert-first" approach: you'll start playing with real programs immediately, as you steadily acclimate to the abstract but powerful features of Lisp and functional programming. Inside you'll find an offbeat, practical guide to Clojure, filled with quirky sample programs that catch cheese thieves and track glittery vampires. Learn how to: –Wield Clojure's core functions –Use Emacs for Clojure development –Write macros to modify Clojure itself –Use Clojure's tools to simplify concurrency and parallel programming Clojure for the Brave and True assumes no prior experience with Clojure, the Java Virtual Machine, or functional programming. Are you ready, brave reader, to meet your true destiny? Grab your best pair of parentheses—you're about to embark on an epic journey into the world of Clojure!

This volume constitutes the proceedings of the 10th International Conference on Artificial Intelligence and Soft Computing, ICAISC'2010, held in Zakopane, Poland in June 13-17, 2010. The articles are organized in topical sections on Fuzzy Systems and Their Applications; Data Mining, Classification and Forecasting; Image and Speech Analysis; Bioinformatics and Medical Applications (Volume 6113) together with Neural Networks and Their Applications; Evolutionary Algorithms and Their Applications; Agent System, Robotics and Control; Various Problems aof Artificial Intelligence (Volume 6114).

Summary A fully revised edition that covers the new features available in Clojure 1.6. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Clojure is a modern Lisp for the JVM. It has the strengths you expect: first-class functions, macros, and Lisp's clean programming style. It supports functional programming, making it ideal for concurrent programming and for creating domain-specific languages. Clojure lets you solve harder problems, make faster changes, and end up with a smaller code base. It's no wonder that there are so many Clojure success stories. About the Book Clojure in Action, Second Edition is an expanded and improved version that's been updated to cover the new features of Clojure 1.6. The book gives you a rapid introduction to the Clojure language, moving from abstract theory to practical examples. You'll start by learning how to use Clojure as a general-purpose language. Next, you'll explore Clojure's efficient concurrency model, based on the database concept of Software Transactional Memory (STM). You'll gain a new level of productivity through Clojure DSLs that can run on the JVM. Along the way, you'll learn countless tips, tricks, and techniques for writing smaller, safer, and faster code. What's Inside Functional programming basics Metaprogramming with Clojure's macros Interoperating with Java Covers Clojure 1.6 About the Reader Assumes readers are familiar with a programming language like C, Java, Ruby, or Python. Table of Contents Introducing Clojure Clojure elements: Data structures and functions Building blocks of Clojure Multimethod polymorphism Exploring Clojure and Java interop State and the concurrent world Evolving Clojure through macros More on functional programming Protocols, records, and types Test-driven development and more More macros and DSL

Understand the philosophy of the Clojure language and dive into its inner workings to unlock its advanced features, methodologies, and constructs About This Book Learn to handle data using sequences, reducers, and transducers in Clojure Explore the lesser known and more advanced features, constructs, and methodologies of the Clojure language and its ecosystem, such as asynchronous channels, actors, logic programming, and reactive programming Sharpen your Clojure skills through illustrative and comprehensive examples Who This Book Is For If you're looking to learn more about the core libraries and dive deep into the Clojure language, then this book is ideal for you. Prior knowledge of the Clojure language is required. What You Will Learn Maximize the impact of parallelization, functional composition, and process transformation by composing reducers and transducers Process and manipulate data using sequences, reducers, and transducers in Clojure Modify and add features to the Clojure language using macros Explore the features of category theory and custom data sources for logic programming in Clojure Orchestrate parallelism and concurrency using built-in primitives as well as community libraries in Clojure Handle data with asynchronous and reactive programming methodologies and leverage it using the core.async library Test your code with unit tests, specs, and type checks to write testable code Troubleshoot and style your Clojure code to make it more maintainable In Detail Clojure is a general-purpose language from the Lisp family with an emphasis on functional programming. It has some interesting concepts and features such as immutability, gradual typing, thread-safe concurrency primitives, and macro-based metaprogramming, which makes it a great choice to create modern, performant, and scalable applications. Mastering

Clojure gives you an insight into the nitty-gritty details and more advanced features of the Clojure programming language to create more scalable, maintainable, and elegant applications. You'll start off by learning the details of sequences, concurrency primitives, and macros. Packed with a lot of examples, you'll get a walkthrough on orchestrating concurrency and parallelism, which will help you understand Clojure reducers, and we'll walk through composing transducers so you know about functional composition and process transformation inside out. We also explain how reducers and transducers can be used to handle data in a more performant manner. Later on, we describe how Clojure also supports other programming paradigms such as pure functional programming and logic programming. Furthermore, you'll level up your skills by taking advantage of Clojure's powerful macro system. Parallel, asynchronous, and reactive programming techniques are also described in detail. Lastly, we'll show you how to test and troubleshoot your code to speed up your development cycles and allow you to deploy the code faster. Style and approach This is an easy-to-follow project-based guide that throws you directly into the excitement of Clojure code. Mastering Clojure is for anyone who is interested in expanding their knowledge of language features and advanced functional programming. ?????????????????????C???????C??????????????????????C ???

Racket is a descendant of Lisp, a programming language renowned for its elegance, power, and challenging learning curve. But while Racket retains the functional goodness of Lisp, it was designed with beginning programmers in mind. Realm of Racket is your introduction to the Racket language. In Realm of Racket, you'll learn to program by creating increasingly complex games. Your journey begins with the Guess My Number game and coverage of some basic Racket etiquette. Next you'll dig into syntax and semantics, lists, structures, and conditionals, and learn to work with recursion and the GUI as you build the Robot Snake game. After that it's on to lambda and mutant structs (and an Orc Battle), and fancy loops and the Dice of Doom. Finally, you'll explore laziness, AI, distributed games, and the Hungry Henry game. As you progress through the games, chapter checkpoints and challenges help reinforce what you've learned. Offbeat comics keep things fun along the way. As you travel through the Racket realm, you'll: –Master the quirks of Racket's syntax and semantics –Learn to write concise and elegant functional programs –Create a graphical user interface using the 2htdp/image library –Create a server to handle true multiplayer games Realm of Racket is a lighthearted guide to some serious programming. Read it to see why Racketeers have so much fun!

Even experienced developers struggle with software systems that sprawl across distributed servers and APIs, are filled with redundant code, and are difficult to reliably test and modify. Grokking Simplicity is a friendly, practical guide that will change the way you approach software design and development. Even experienced developers struggle with software systems that sprawl across distributed servers and APIs, are filled with redundant code, and are difficult to reliably test and modify. Grokking Simplicity is a friendly, practical guide that will change the way you approach software design and development. Grokking Simplicity guides you to a crystal-clear understanding of why certain features of modern software are so prone to complexity and introduces you to the functional techniques you can use to simplify these systems so that they're easier to read, test, and debug. Through hands-on examples, exercises, and numerous self-assessments, you'll learn to organize your code for maximum reusability and internalize methods to keep unwanted complexity out of your codebase. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Clojure is a practical, general-purpose language that offers expressivity rivaling other dynamic languages like Ruby and Python, while seamlessly taking advantage of Java libraries, services, and all of the resources of the JVM ecosystem. This book helps you learn the fundamentals of Clojure with examples relating it to the languages you know already, in the domains and topics you work with every day. See how this JVM language can help eliminate unnecessary complexity from your programming practice and open up new options for solving the most challenging problems. Clojure Programming demonstrates the language's flexibility by showing how it can be used for common tasks like web programming and working with databases, up through more demanding applications that require safe, effective concurrency and parallelism, data analysis, and more. This in-depth look helps tie together the full Clojure development experience, from how to organize your project and an introduction to Clojure build tooling, to a tutorial on how to make the most of Clojure's REPL during development, and how to deploy your finished application in a cloud environment. Learn how to use Clojure while leveraging your investment in the Java platform Understand the advantages of Clojure as an efficient Lisp for the JVM See how Clojure is used today in several practical domains Discover how Clojure eliminates the need for many verbose and complicated design patterns Deploy large or small web applications to the cloud with Clojure

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This book constitutes the refereed proceedings of the 13th Asian Symposium on Programming Languages and Systems, APLAS 2015, held in Pohang, South Korea, in November/December 2015. The 24 regular papers presented together with 1 short paper were carefully reviewed and selected from 74 submissions. The papers cover a variety of foundational and practical issues in programming languages and systems and have been organized in topical sections on compilers, separation logic, static analysis and abstract interpretation, Hoare logic and types, functional programming and semantics, model checking, program analysis, medley, and programming models.

There is an easier way to build Hadoop applications. With this hands-on book, you'll learn how to use Cascading, the open source abstraction framework for Hadoop that lets you easily create and manage powerful enterprise-grade data processing applications—without having to learn the intricacies of MapReduce. Working with sample apps based on Java and other JVM languages, you'll quickly learn Cascading's streamlined approach to data processing, data filtering, and workflow optimization. This book demonstrates how this framework can help your business extract meaningful information from large amounts of distributed data. Start working on Cascading example projects right away Model and analyze unstructured data in any format, from any source Build and test applications with familiar constructs and reusable components Work with the Scalding and Cascalog Domain-Specific Languages Easily deploy applications to Hadoop, regardless of cluster location or data size Build workflows that integrate several big data frameworks and processes Explore common use cases for Cascading, including features and tools that support them Examine a case study that uses a dataset from the Open Data Initiative

Eminent physicist and economist, Robert Ayres, examines the history of technology as a change agent in society, focusing on societal roots rather than technology as an autonomous, self-perpetuating phenomenon. With rare exceptions, technology is developed in response to societal needs that have evolutionary roots and causes. In our genus Homo, language evolved in response to a need for our ancestors to communicate, both in the moment, and to posterity. A band of hunters had no chance in competition with predators that were larger and faster without this type of organization, which eventually gave birth to writing and music. The steam engine did not leap fully formed from the brain of James Watt. It evolved from a need to pump water out of coal mines, driven by a need to burn coal instead of firewood, in turn due to deforestation. Later, the steam engine made machines and mechanization possible. Even quite simple machines increased human productivity by a factor of hundreds, if not thousands. That was the Industrial Revolution. If we count electricity and the automobile as a second industrial revolution, and the digital computer as the beginning of a third, the world is now on the cusp of a fourth revolution led by microbiology. These industrial revolutions have benefited many in the short term, but devastated the Earths ecosystems. Can technology save the human race from the catastrophic consequences of its past success? That is the question this book will try to answer.

Find solutions to problems and answers to questions you are likely to encounter when writing real-world applications in Common Lisp. This book covers areas as diverse as web programming, databases, graphical user interfaces, integration with other programming languages, multi-threading, and mobile devices as well as debugging techniques and optimization, to name just a few. Written by an author who has used Common Lisp in many successful commercial projects over more than a decade, Common Lisp Recipes is also the first Common Lisp book to tackle such advanced topics as environment access, logical pathnames, Gray streams, delivery of executables, pretty printing, setf expansions, or changing the syntax of Common Lisp. The book is organized around specific problems or questions each followed by ready-to-use example solutions and clear explanations of the concepts involved, plus pointers to alternatives and more information. Each recipe can be read independently of the others and thus the book will earn a special place on your bookshelf as a reference work you always want to have within reach. Common Lisp Recipes is aimed at programmers who are already familiar with Common Lisp to a certain extent but do not yet have the experience you typically only get from years of hacking in a specific computer language. It is written in a style that mixes hands-on no-frills pragmatism with precise information and prudent mentorship. If you feel attracted to Common Lisp's mix of breathtaking features and down-to-earth utilitarianism, you'll also like this book.