

Programming Languages Principles And Paradigms

This is likewise one of the factors by obtaining the soft documents of this **Programming Languages Principles And Paradigms** by online. You might not require more get older to spend to go to the books initiation as capably as search for them. In some cases, you likewise accomplish not discover the pronouncement Programming Languages Principles And Paradigms that you are looking for. It will agreed squander the time.

However below, subsequently you visit this web page, it will be fittingly totally simple to acquire as well as download guide Programming Languages Principles And Paradigms

It will not agree to many period as we notify before. You can reach it while act out something else at home and even in your workplace. thus easy! So, are you question? Just exercise just what we find the money for under as without difficulty as evaluation **Programming Languages Principles And Paradigms** what you afterward to read!

Data-Oriented Programming -
Yehonathan Sharvit 2022-09-27
Eliminate the unavoidable complexity of object-oriented designs. The innovative data-oriented programming paradigm makes your systems less complex by making it simpler to access and manipulate data. In Data-Oriented Programming you will learn how to: Separate code from data Represent data with generic data structures Manipulate data with general-purpose functions Manage state without mutating data Control concurrency in highly scalable systems Write data-oriented unit tests Specify the shape of your data Benefit from polymorphism without objects Debug programs without a debugger Data-Oriented Programming is a one-of-a-kind guide that introduces the data-oriented paradigm. This groundbreaking approach represents data with generic immutable data structures. It simplifies state management, eases concurrency, and does away with the common problems you'll find in object-oriented code. The book presents powerful new ideas through conversations, code snippets, and diagrams that help you quickly grok what's great about DOP. Best of all, the paradigm is language-agnostic—you'll learn to write DOP code that can be implemented in

JavaScript, Ruby, Python, Clojure, and also in traditional OO languages like Java or C#. About the technology Code that combines behavior and data, as is common in object-oriented designs, can introduce almost unmanageable complexity for state management. The Data-oriented programming (DOP) paradigm simplifies state management by holding application data in immutable generic data structures and then performing calculations using non-mutating general-purpose functions. Your applications are free of state-related bugs and your code is easier to understand and maintain. About the book Data-Oriented Programming teaches you to design software using the groundbreaking data-oriented paradigm. You'll put DOP into action to design data models for business entities and implement a library management system that manages state without data mutation. The numerous diagrams, intuitive mind maps, and a unique conversational approach all help you get your head around these exciting new ideas. Every chapter has a lightbulb moment that will change the way you think about programming. What's inside Separate code from data Represent data with generic data structures Manage state without mutating data Control concurrency in

highly scalable systems Write data-oriented unit tests Specify the shape of your data About the reader For programmers who have experience with a high-level programming language like JavaScript, Java, Python, C#, Clojure, or Ruby. About the author Yehonathan Sharvit has over twenty years of experience as a software engineer. He blogs, speaks at conferences, and leads Data-Oriented Programming workshops around the world. Table of Contents PART 1 FLEXIBILITY 1 Complexity of object-oriented programming 2 Separation between code and data 3 Basic data manipulation 4 State management 5 Basic concurrency control 6 Unit tests PART 2 SCALABILITY 7 Basic data validation 8 Advanced concurrency control 9 Persistent data structures 10 Database operations 11 Web services PART 3 MAINTAINABILITY 12 Advanced data validation 13 Polymorphism 14 Advanced data manipulation 15 Debugging
Programming Languages: Principles and Paradigms - Maurizio Gabbrielli 2010-03-23

This excellent addition to the UTiCS series of undergraduate textbooks provides a detailed and up to date description of the main principles behind the design and implementation of modern programming languages. Rather than focusing on a specific language, the book identifies the most important principles shared by large classes of languages. To complete this general approach, detailed descriptions of the main programming paradigms, namely imperative, object-oriented, functional and logic are given, analysed in depth and compared. This provides the basis for a critical understanding of most of the programming languages. An historical viewpoint is also included, discussing the evolution of programming languages, and to provide a context for most of the constructs in use today. The book concludes with two chapters which introduce basic notions of syntax, semantics and computability, to provide a completely rounded picture of what constitutes a programming language.
/div

Programming Languages - Kenneth C. Louden 2003

This text provides students with an overview of key issues in the study of programming languages. Rather than focus on individual language issues, Kenneth Louden focuses on language paradigms and concepts that are common to all languages.

Foundations of Programming Languages - Kent D. Lee 2015-01-19

This clearly written textbook introduces the reader to the three styles of programming, examining object-oriented/imperative, functional, and logic programming. The focus of the text moves from highly prescriptive languages to very descriptive languages, demonstrating the many and varied ways in which we can think about programming. Designed for interactive learning both inside and outside of the classroom, each programming paradigm is highlighted through the implementation of a non-trivial programming language, demonstrating when each language may be appropriate for a given problem. Features: includes review questions and solved practice exercises, with supplementary code and support files available from an associated website; provides the foundations for understanding how the syntax of a language is formally defined by a grammar; examines assembly language programming using CoCo; introduces C++, Standard ML, and Prolog; describes the development of a type inference system for the language Small.

Paradigms of Artificial Intelligence Programming - Peter Norvig 2014-06-28
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.

Introduction to Programming Languages

- Arvind Kumar Bansal 2013-12-14

In programming courses, using the different syntax of multiple languages, such as C++, Java, PHP, and Python, for the same abstraction often confuses students new to computer science. Introduction to Programming Languages separates programming language concepts from the restraints of multiple language syntax by discussing the concepts at an abstract level. Designed for a one-semester undergraduate course, this classroom-tested book teaches the principles of programming language design and implementation. It presents: Common features of programming languages at an abstract level rather than a comparative level The implementation model and behavior of programming paradigms at abstract levels so that students understand the power and limitations of programming paradigms Language constructs at a paradigm level A holistic view of programming language design and behavior To make the book self-contained, the author introduces the necessary concepts of data structures and discrete structures from the perspective of programming language theory. The text covers classical topics, such as syntax and semantics, imperative programming, program structures, information exchange between subprograms, object-oriented programming, logic programming, and functional programming. It also explores newer topics, including dependency analysis, communicating sequential processes, concurrent programming constructs, web and multimedia programming, event-based programming, agent-based programming, synchronous languages, high-productivity programming on massive parallel computers, models for mobile

computing, and much more. Along with problems and further reading in each chapter, the book includes in-depth examples and case studies using various languages that help students understand syntax in practical contexts.

Essentials of Programming Languages - Daniel P. Friedman 2001

This textbook offers an understanding of the essential concepts of programming languages. The text uses interpreters, written in Scheme, to express the semantics of many essential language elements in a way that is both clear and directly executable.

Programming Languages - Allen B. Tucker 2002

Programming Languages: Principles and Paradigms by Allen Tucker and Robert Noonan is an exciting first edition for the programming languages course. The text covers all of the major design topics and language paradigms in a coherent and modern fashion. Programming Languages: Principles and Paradigms gives a complete, hands-on treatment of principles that uses formal grammar, type system and denotational semantics along with presenting and contrasting the major programming paradigms. The book integrates its coverage of formal semantics into its coverage of major language design topics and programming paradigms with integrated coverage of formal semantics. This integration is, in part, accomplished through the use of a small imperative language, which the authors call "Jay." Additionally, this book focuses on one language per paradigm (except for functional programming, where both Scheme and Haskell are used). This allows for a deeper understanding of the language paradigm, rather than a survey of all the languages that are part of it. This book also discusses two modern programming paradigms, event-driven programming and concurrent programming.

Programming Languages Principles and Paradigms - Adesh K. Pandey 2008

Functional Programming For Dummies - John Paul Mueller 2019-01-03

Your guide to the functional

programming paradigm Functional programming mainly sees use in math computations, including those used in Artificial Intelligence and gaming. This programming paradigm makes algorithms used for math calculations easier to understand and provides a concise method of coding algorithms by people who aren't developers. Current books on the market have a significant learning curve because they're written for developers, by developers—until now. *Functional Programming for Dummies* explores the differences between the pure (as represented by the Haskell language) and impure (as represented by the Python language) approaches to functional programming for readers just like you. The pure approach is best suited to researchers who have no desire to create production code but do need to test algorithms fully and demonstrate their usefulness to peers. The impure approach is best suited to production environments because it's possible to mix coding paradigms in a single application to produce a result more quickly. *Functional Programming For Dummies* uses this two-pronged approach to give you an all-in-one approach to a coding methodology that can otherwise be hard to grasp. Learn pure and impure when it comes to coding Dive into the processes that most functional programmers use to derive, analyze and prove the worth of algorithms Benefit from examples that are provided in both Python and Haskell Glean the expertise of an expert author who has written some of the market-leading programming books to date If you're ready to massage data to understand how things work in new ways, you've come to the right place!

Programming Languages: Concepts & Constructs, 2/E - Sethi 2007-09

Programming Language Explorations - Ray Toal 2017-08-09

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.

Advanced Programming Language Design - Raphael A. Finkel 1996
0805311912B04062001

Programming Languages: Principles and Practices - Kenneth C. Loudon
2011-01-26

Kenneth Loudon and Kenneth Lambert's new edition of PROGRAMMING LANGUAGES:

PRINCIPLES AND PRACTICE, 3E gives advanced undergraduate students an overview of programming languages through general principles combined with details about many modern languages. Major languages used in this edition include C, C++, Smalltalk, Java, Ada, ML, Haskell, Scheme, and Prolog; many other languages are discussed more briefly. The text also contains extensive coverage of implementation issues, the theoretical foundations of programming languages, and a large number of exercises, making it the perfect bridge to compiler courses and to the theoretical study of programming languages. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Programming Languages - Terrence W. Pratt 1984

Programming Languages - Adesh K. Pandey 2008

Programming Language: Principles and Paradigms focuses on designing, implementation, properties and limitations of new and existing programming languages. The book supports a critical study of the Imperative, Functional and Logic Languages focusing on both principles and paradigms which allows for flexibility in how the text can be used. The instructor can cover the fundamentals in principles and then choose paradigms of the text that he or she wishes to cover. Comparative study of implementation of various programming languages like C, C++, Java, Lisp, ML, Ada etc. In complete book the concepts of designing of languages are discussed with examples and programs of frequently used languages like C, C++, Java, Ada, ML and Lisp.

Concepts of Programming Languages - Robert W. Sebesta 2004

Programming Language Design Concepts - David A. Watt 2004-05-21

Explains the concepts underlying programming languages, and demonstrates how these concepts are synthesized in the major paradigms: imperative, OO, concurrent,

functional, logic and with recent scripting languages. It gives greatest prominence to the OO paradigm. Includes numerous examples using C, Java and C++ as exemplar languages Additional case-study languages: Python, Haskell, Prolog and Ada Extensive end-of-chapter exercises with sample solutions on the companion Web site Deepens study by examining the motivation of programming languages not just their features

Concepts in Programming Languages - John C. Mitchell 2003

A comprehensive undergraduate textbook covering both theory and practical design issues, with an emphasis on object-oriented languages.

Programming Language Concepts and Paradigms - David Anthony Watt 1990
Software -- Programming Techniques.
Types and Programming Languages - Benjamin C. Pierce 2002-01-04

A comprehensive introduction to type systems and programming languages. A type system is a syntactic method for automatically checking the absence of certain erroneous behaviors by classifying program phrases according to the kinds of values they compute. The study of type systems—and of programming languages from a type-theoretic perspective—has important applications in software engineering, language design, high-performance compilers, and security. This text provides a comprehensive introduction both to type systems in computer science and to the basic theory of programming languages. The approach is pragmatic and operational; each new concept is motivated by programming examples and the more theoretical sections are driven by the needs of implementations. Each chapter is accompanied by numerous exercises and solutions, as well as a running implementation, available via the Web. Dependencies between chapters are explicitly identified, allowing readers to choose a variety of paths through the material. The core topics include the untyped lambda-calculus, simple type systems, type reconstruction, universal and existential polymorphism, subtyping, bounded quantification, recursive

types, kinds, and type operators. Extended case studies develop a variety of approaches to modeling the features of object-oriented languages.

Modern Programming Languages - Adam Brooks Webber 2003

Typical undergraduate CS/CE majors have a practical orientation: they study computing because they like programming and are good at it. This book has strong appeal to this core student group. There is more than enough material for a semester-long course. The challenge for a course in programming language concepts is to help practical

Essentials of Programming Languages, third edition - Daniel P. Friedman 2008-04-18

A new edition of a textbook that provides students with a deep, working understanding of the essential concepts of programming languages, completely revised, with significant new material. This book provides students with a deep, working understanding of the essential concepts of programming languages. Most of these essentials relate to the semantics, or meaning, of program elements, and the text uses interpreters (short programs that directly analyze an abstract representation of the program text) to express the semantics of many essential language elements in a way that is both clear and executable. The approach is both analytical and hands-on. The book provides views of programming languages using widely varying levels of abstraction, maintaining a clear connection between the high-level and low-level views. Exercises are a vital part of the text and are scattered throughout; the text explains the key concepts, and the exercises explore alternative designs and other issues. The complete Scheme code for all the interpreters and analyzers in the book can be found online through The MIT Press web site. For this new edition, each chapter has been revised and many new exercises have been added. Significant additions have been made to the text, including completely new chapters on modules and continuation-passing style.

Essentials of Programming Languages can be used for both graduate and undergraduate courses, and for continuing education courses for programmers.

Literate Programming - Donald Ervin Knuth 1992-01

Literate programming is a programming methodology that combines a programming language with a documentation language, making programs more easily maintained than programs written only in a high-level language. A literate programmer is an essayist who writes programs for humans to understand. When programs are written in the recommended style they can be transformed into documents by a document compiler and into efficient code by an algebraic compiler. This anthology of essays includes Knuth's early papers on related topics such as structured programming as well as the Computer Journal article that launched literate programming. Many examples are given, including excerpts from the programs for TeX and METAFONT. The final essay is an example of CWEB, a system for literate programming in C and related languages. Index included.

Concepts, Techniques, and Models of Computer Programming - Peter Van Roy 2004-02-20

Teaching the science and the technology of programming as a unified discipline that shows the deep relationships between programming paradigms. This innovative text presents computer programming as a unified discipline in a way that is both practical and scientifically sound. The book focuses on techniques of lasting value and explains them precisely in terms of a simple abstract machine. The book presents all major programming paradigms in a uniform framework that shows their deep relationships and how and where to use them together. After an introduction to programming concepts, the book presents both well-known and lesser-known computation models ("programming paradigms"). Each model has its own set of techniques and each is included on the basis of its usefulness in practice. The general

models include declarative programming, declarative concurrency, message-passing concurrency, explicit state, object-oriented programming, shared-state concurrency, and relational programming. Specialized models include graphical user interface programming, distributed programming, and constraint programming. Each model is based on its kernel language—a simple core language that consists of a small number of programmer-significant elements. The kernel languages are introduced progressively, adding concepts one by one, thus showing the deep relationships between different models. The kernel languages are defined precisely in terms of a simple abstract machine. Because a wide variety of languages and programming paradigms can be modeled by a small set of closely related kernel languages, this approach allows programmer and student to grasp the underlying unity of programming. The book has many program fragments and exercises, all of which can be run on the Mozart Programming System, an Open Source software package that features an interactive incremental development environment.

The Cambridge Handbook of Computing Education Research - Sally A. Fincher 2019-02-21

This Handbook describes the extent and shape of computing education research today. Over fifty leading researchers from academia and industry (including Google and Microsoft) have contributed chapters that together define and expand the evidence base. The foundational chapters set the field in context, articulate expertise from key disciplines, and form a practical guide for new researchers. They address what can be learned empirically, methodologically and theoretically from each area. The topic chapters explore issues that are of current interest, why they matter, and what is already known. They include discussion of motivational context, implications for practice, and open questions which might suggest future research. The authors provide an authoritative

introduction to the field and is essential reading for policy makers, as well as both new and established researchers.

Principles of Programming Languages - Gilles Dowek 2009-04-03

By introducing the principles of programming languages, using the Java language as a support, Gilles Dowek provides the necessary fundamentals of this language as a first objective. It is important to realise that knowledge of a single programming language is not really enough. To be a good programmer, you should be familiar with several languages and be able to learn new ones. In order to do this, you'll need to understand universal concepts, such as functions or cells, which exist in one form or another in all programming languages. The most effective way to understand these universal concepts is to compare two or more languages. In this book, the author has chosen Caml and C. To understand the principles of programming languages, it is also important to learn how to precisely define the meaning of a program, and tools for doing so are discussed. Finally, there is coverage of basic algorithms for lists and trees. Written for students, this book presents what all scientists and engineers should know about programming languages.

Practical Foundations for Programming Languages - Robert Harper 2016-04-04

This text develops a comprehensive theory of programming languages based on type systems and structural operational semantics. Language concepts are precisely defined by their static and dynamic semantics, presenting the essential tools both intuitively and rigorously while relying on only elementary mathematics. These tools are used to analyze and prove properties of languages and provide the framework for combining and comparing language features. The broad range of concepts includes fundamental data types such as sums and products, polymorphic and abstract types, dynamic typing, dynamic dispatch, subtyping and refinement types, symbols and dynamic classification, parallelism and cost

semantics, and concurrency and distribution. The methods are directly applicable to language implementation, to the development of logics for reasoning about programs, and to the formal verification language properties such as type safety. This thoroughly revised second edition includes exercises at the end of nearly every chapter and a new chapter on type refinements. Programming Languages: Principles and Paradigms - Maurizio Gabbriellini 2010-04-15

With great pleasure, I accepted the invitation extended to me to write these few lines of Foreword. I accepted for at least two reasons. The first is that the request came to me from two colleagues for whom I have always had the greatest regard, starting from the time when I first knew and appreciated them as students and as young researchers. The second reason is that the text by Gabbriellini and Martini is very near to the book that I would have liked to have written but, for various reasons, never have. In particular, the approach adopted in this book is the one which I myself have followed when organising the various courses on programming languages I have taught for almost thirty years at different levels under various titles. The approach, summarised in 2 words, is that of introducing the general concepts (either using linguistic mechanisms or the implementation structures corresponding to them) in a manner that is independent of any specific language; once this is done, "real languages" are introduced. This is the only approach that allows one to reveal similarities between apparently quite different languages (and also between paradigms). At the same time, it makes the task of learning different languages easier. In my experience as a lecturer, ex-students recall the principles learned in the course even after many years; they still appreciate the approach which allowed them to adapt to technological developments without too much difficulty.

Design Patterns and Best Practices in Java - Kamalmeet Singh 2018-06-27

Create various design patterns to master the art of solving problems using Java Key Features This book demonstrates the shift from OOP to functional programming and covers reactive and functional patterns in a clear and step-by-step manner All the design patterns come with a practical use case as part of the explanation, which will improve your productivity Tackle all kinds of performance-related issues and streamline your development Book Description Having a knowledge of design patterns enables you, as a developer, to improve your code base, promote code reuse, and make the architecture more robust. As languages evolve, new features take time to fully understand before they are adopted en masse. The mission of this book is to ease the adoption of the latest trends and provide good practices for programmers. We focus on showing you the practical aspects of smarter coding in Java. We'll start off by going over object-oriented (OOP) and functional programming (FP) paradigms, moving on to describe the most frequently used design patterns in their classical format and explain how Java's functional programming features are changing them. You will learn to enhance implementations by mixing OOP and FP, and finally get to know about the reactive programming model, where FP and OOP are used in conjunction with a view to writing better code. Gradually, the book will show you the latest trends in architecture, moving from MVC to microservices and serverless architecture. We will finish off by highlighting the new Java features and best practices. By the end of the book, you will be able to efficiently address common problems faced while developing applications and be comfortable working on scalable and maintainable projects of any size. What you will learn Understand the OOP and FP paradigms Explore the traditional Java design patterns Get to know the new functional features of Java See how design patterns are changed and affected by the new features Discover what reactive programming is and why is it the natural augmentation of FP Work with reactive design patterns

and find the best ways to solve common problems using them See the latest trends in architecture and the shift from MVC to serverless applications Use best practices when working with the new features Who this book is for This book is for those who are familiar with Java development and want to be in the driver's seat when it comes to modern development techniques. Basic OOP Java programming experience and elementary familiarity with Java is expected.

Advanced R - Hadley Wickham
2015-09-15

An Essential Reference for Intermediate and Advanced R Programmers Advanced R presents useful tools and techniques for attacking many types of R programming problems, helping you avoid mistakes and dead ends. With more than ten years of experience programming in R, the author illustrates the elegance, beauty, and flexibility at the heart of R. The book develops the necessary skills to produce quality code that can be used in a variety of circumstances. You will learn: The fundamentals of R, including standard data types and functions Functional programming as a useful framework for solving wide classes of problems The positives and negatives of metaprogramming How to write fast, memory-efficient code This book not only helps current R users become R programmers but also shows existing programmers what's special about R. Intermediate R programmers can dive deeper into R and learn new strategies for solving diverse problems while programmers from other languages can learn the details of R and understand why R works the way it does.

Lucid, the Dataflow Programming Language - William W. Wadge 1985
Lucid is a new dataflow language, designed to exploit the capabilities of the multi-processor machines which are more powerful than single-processor machines, and require a language in which highly parallel algorithms can be easily expressed. The primary objective of this book is to prove that dataflow is a real alternative to sequential/imperative

computing and that dataflow algorithms can be expressed naturally and concisely in Lucid.

Programming Languages - Allen B. Tucker 1986

Programming Language Pragmatics - Michael L. Scott 2015-11-30
Programming Language Pragmatics, Fourth Edition, is the most comprehensive programming language textbook available today. It is distinguished and acclaimed for its integrated treatment of language design and implementation, with an emphasis on the fundamental tradeoffs that continue to drive software development. The book provides readers with a solid foundation in the syntax, semantics, and pragmatics of the full range of programming languages, from traditional languages like C to the latest in functional, scripting, and object-oriented programming. This fourth edition has been heavily revised throughout, with expanded coverage of type systems and functional programming, a unified treatment of polymorphism, highlights of the newest language standards, and examples featuring the ARM and x86 64-bit architectures. Updated coverage of the latest developments in programming language design, including C & C++11, Java 8, C# 5, Scala, Go, Swift, Python 3, and HTML 5 Updated treatment of functional programming, with extensive coverage of OCaml New chapters devoted to type systems and composite types Unified and updated treatment of polymorphism in all its forms New examples featuring the ARM and x86 64-bit architectures

Introduction to Programming Languages - Yinong Chen 2019

Intelligent Systems - Robert J. Schalkoff 2011-08-24
Artificial Intelligence has changed significantly in recent years and many new resources and approaches are now available to explore and implement this important technology. Intelligent Systems: Principles, Paradigms, and Pragmatics takes a modern, 21st-century approach to the concepts of Artificial Intelligence and includes the latest developments,

developmental tools, programming, and approaches related to AI. The author is careful to make the important distinction between theory and practice, and focuses on a broad core of technologies, providing students with an accessible and comprehensive introduction to key AI topics.

The Study of Programming Languages -

Ryan D. Stansifer 1995

For one-semester, senior/graduate-level courses in Programming Languages. Rigorous, thorough, and foundational, this text reveals the character of programming languages as a field of study and explores some of the interesting, important, and conceptually more challenging topics that are often ignored by other texts on the subject.

Cloud Computing - Rajkumar Buyya
2010-12-17

The primary purpose of this book is to capture the state-of-the-art in Cloud Computing technologies and applications. The book will also aim to identify potential research directions and technologies that will facilitate creation a global marketplace of cloud computing services supporting scientific, industrial, business, and consumer applications. We expect the book to serve as a reference for larger audience such as systems architects, practitioners, developers, new researchers and graduate level students. This area of research is relatively recent, and as such has no existing reference book that addresses it. This book will be a timely contribution to a field that is gaining considerable research interest, momentum, and is expected to be of increasing interest to commercial developers. The book is

targeted for professional computer science developers and graduate students especially at Masters level. As Cloud Computing is recognized as one of the top five emerging technologies that will have a major impact on the quality of science and society over the next 20 years, its knowledge will help position our readers at the forefront of the field.

History of Programming Languages -

Richard L. Wexelblat 2014-05-27

History of Programming Languages presents information pertinent to the technical aspects of the language design and creation. This book provides an understanding of the processes of language design as related to the environment in which languages are developed and the knowledge base available to the originators. Organized into 14 sections encompassing 77 chapters, this book begins with an overview of the programming techniques to use to help the system produce efficient programs. This text then discusses how to use parentheses to help the system identify identical subexpressions within an expression and thereby eliminate their duplicate calculation. Other chapters consider FORTRAN programming techniques needed to produce optimum object programs. This book discusses as well the developments leading to ALGOL 60. The final chapter presents the biography of Adin D. Falkoff. This book is a valuable resource for graduate students, practitioners, historians, statisticians, mathematicians, programmers, as well as computer scientists and specialists.

Introduction to Programming Languages

- Yinong Chen 2014-05