

Concepts Of Programming Languages 11th Edition

The manual describes LISP, a formal mathematical language. LISP differs from most programming languages in three important ways. The first way is in the nature of the data. The LISP language is designed primarily for symbolic data processing used for symbolic calculations in differential and integral calculus, electrical circuit theory, mathematical logic, game playing, and other fields of artificial intelligence. The manual describes LISP, a formal mathematical language. LISP differs from most programming languages in three important ways. The first way is in the nature of the data. In the LISP language, all data are in the form of symbolic expressions usually referred to as S-expressions, of indefinite length, and which have a branching tree-type of structure, so that significant subexpressions can be readily isolated. In the LISP system, the bulk of the available memory is used for storing S-expressions in the form of list structures. The second distinction is that the LISP language is the source language itself which specifies in what way the S-expressions are to be processed. Third, LISP can interpret and execute programs written in the form of S-expressions. Thus, like machine language, and unlike most other high level languages, it can be used to generate programs for further executions.

This book uses a functional programming language (F#) as a metalanguage to present all concepts and examples, and thus has an operational flavour, enabling practical experiments and exercises. It includes basic concepts such as abstract syntax, interpretation, stack machines, compilation, type checking, garbage collection, and real machine code. Also included are more advanced topics on polymorphic types, type inference using unification, co- and contravariant types, continuations, and backwards code generation with on-the-fly peephole optimization. This second edition includes two new chapters. One describes compilation and type checking of a full functional language, tying together the previous chapters. The other describes how to compile a C subset to real (x86) hardware, as a smooth extension of the previously presented compilers. The examples present several interpreters and compilers for toy languages, including compilers for a small but usable subset of C, abstract machines, a garbage collector, and ML-style polymorphic type inference. Each chapter has exercises. Programming Language Concepts covers practical construction of lexers and parsers, but not regular expressions, automata and grammars, which are well covered already. It discusses the design and technology of Java and C# to strengthen students' understanding of these widely used languages.

Concepts of Programming Languages Addison-Wesley

Key ideas in programming language design and implementation explained using a simple and concise framework; a comprehensive introduction suitable for use as a textbook or a reference for researchers. Hundreds of programming languages are in use today—scripting languages for Internet commerce, user interface programming tools, spreadsheet macros, page format specification languages, and many others. Designing a programming language is a metaprogramming activity that bears certain similarities to programming in a regular language, with clarity and simplicity even more important than in ordinary programming. This comprehensive text uses a simple and concise framework to teach key ideas in programming language design and implementation. The book's unique approach is based on a family of syntactically simple pedagogical languages that allow students to explore programming language concepts systematically. It takes as premise and starting point the idea that when language behaviors become incredibly complex, the description of the behaviors must be incredibly simple. The book presents a set of tools (a mathematical metalanguage, abstract syntax, operational and denotational semantics) and uses it to explore a comprehensive set of programming language design dimensions, including dynamic semantics (naming, state, control, data), static semantics (types, type reconstruction, polymorphism, effects), and pragmatics (compilation, garbage collection). The many examples and exercises offer students opportunities to apply the foundational ideas explained in the text. Specialized topics and code that implements many of the algorithms and compilation methods in the book can be found on the book's Web site, along with such additional material as a section on concurrency and proofs of the theorems in the text. The book is suitable as a text for an introductory graduate or advanced undergraduate programming languages course; it can also serve as a reference for researchers and practitioners.

Principles and Practice Using C++

Java

Write Great Code, Volume 2, 2nd Edition

Concepts of Programming Languages

Thinking Low-Level, Writing High-Level

A Complete Guide to Programming in C++

Considered to be one of the best-selling programming books ever written, the eighth edition has now been edited, revised, and updated. A CD-ROM with demos, code, compiler, executables, and MATLAB examples has been added to the book. Simplicity and an easy narration style are the hallmarks of the book, which have made its previous seven editions immensely successful. Today's C programmer (still the language of choice in science, engineering, game programming and for handheld devices) has to master the complexities of the language and contend with its usage in environments like Windows, Linux, and for the Internet. Let Us C, Eighth Edition covers these three aspects of C programming and doesn't assume any programming background. It begins with the basics and steadily builds the pace, so the reader finds it easy to handle more complicated topics later. This popular author has crafted hundreds of excellent programming examples and exercises for every aspect of C programming.

An Introduction to Programming by the Inventor of C++ Preparation for Programming in the Real World The book assumes that you aim eventually to write non-trivial programs, whether for work in software development or in some other technical field. Focus on Fundamental Concepts and Techniques The book explains fundamental concepts and techniques in greater depth than traditional introductions. This approach will give you a solid foundation for writing useful, correct, maintainable, and efficient code. Programming with Today's C++ (C++11 and C++14) The book is an introduction to programming in general, including object-oriented programming and generic programming. It is also a solid introduction to the C++ programming language, one of the most widely used languages for real-world software. The book presents modern C++ programming techniques from the start, introducing the C++ standard library and C++11 and C++14 features to simplify programming tasks. For Beginners—And Anyone Who Wants to Learn Something New The book is primarily designed for people who have never programmed before, and it has been tested with many thousands of first-year university students. It has also been extensively used for self-study. Also, practitioners and advanced students have gained new insight and guidance by seeing how a master approaches the elements of his art. Provides a Broad View The first half of the book covers a wide range of essential concepts, design and programming techniques, language features, and libraries. Those will enable you to write programs involving input, output, computation, and simple graphics. The second half explores more specialized topics (such as text processing, testing, and the C programming language) and provides abundant reference material. Source code and support supplements are available from the author's website.

"Based on my own experience, I can safely say that every .NET developer who reads this will have at least one 'aha' moment and will be a better developer for it." —From the Foreword by Don Box The popular C# programming language combines the high productivity of rapid application development languages with the raw power of C and C++. Now, C# 3.0 adds functional programming techniques and LINQ, Language Integrated Query. The C# Programming Language, Third Edition, is the authoritative and annotated technical reference for C# 3.0. Written by Anders Hejlsberg, the language's architect, and his colleagues, Mads Torgersen, Scott Wiltamuth, and Peter Golde, this volume has been completely updated and reorganized for C# 3.0. The book provides the complete specification of the language, along with descriptions, reference materials, code samples, and annotations from nine prominent C# gurus. The many annotations—a new feature in this edition—bring a depth and breadth of understanding rarely found in any programming book. As the main text of the book introduces the concepts of the C# language, cogent annotations explain why they are important, how they are used, how they relate to other languages, and even how they evolved. This book is the definitive, must-have reference for any developer who wants to understand C#.

The Deitels' groundbreaking How to Program series offers unparalleled breadth and depth of object-oriented programming concepts and intermediate-level topics for further study. This survey of Java programming contains an extensive OOD/UML 2 case study on developing an automated teller machine. The Seventh Edition has been extensively fine-tuned and is completely up-to-date with Sun Microsystems, Inc.'s latest Java release—Java Standard Edition (Java SE) 6.

Concepts Of Programming Languages

Software Engineering

Introduction To Design And Analysis Of Algorithms, 2/E

Lucid, the Dataflow Programming Language

Programming

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.

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Intended for introductory and advanced courses in software engineering. The ninth edition of Software Engineering presents a broad perspective of software engineering, focusing on the processes and techniques fundamental to the creation of reliable, software systems. Increased coverage of agile methods and software reuse, along with coverage of 'traditional' plan-driven software engineering, gives readers the most up-to-date view of the field currently available. Practical case studies, a full set of easy-to-access supplements, and extensive web resources make teaching the course easier than ever. The book is now structured into four parts: 1: Introduction to Software Engineering 2: Dependability and Security 3: Advanced Software Engineering 4: Software Engineering Management

Case studies implemented in several object-oriented programming languages including CÉÉ, Smalltalk, Objective-C, Actor and Object pascal.

For courses in computer programming. Evaluating the Fundamentals of Computer Programming Languages Concepts of Computer Programming Languages introduces students to the fundamental concepts of computer programming languages and provides them with the tools necessary to evaluate contemporary and future languages. An in-depth discussion of programming language structures, such as syntax and lexical and syntactic analysis, also prepares readers to study compiler design. The Eleventh Edition maintains an up-to-date discussion on the topic with the removal of outdated languages such as Ada and Fortran. The addition of relevant new topics and examples such as reflection and exception handling in Python and Ruby adds to the currency of the text. Through a critical analysis of design issues of various program languages, Concepts of Computer Programming Languages teaches programmers the essential differences between computing with specific languages.

Computer Science

Let Us C

Introduction to Java Programming and Data Structures

How to Program

Object-oriented Programming in the BETA Programming Language

Design Concepts in Programming Languages

Thinking Low-Level, Writing High-Level, the second volume in the landmark Write Great Code series by Randall Hyde, covers high-level programming languages (such as Swift and Java) as well as code generation on 64-bit CPUs ARM, the Java Virtual Machine, and the Microsoft Common Runtime. Today's programming languages offer productivity and portability, but also make it easy to write sloppy code that isn't optimized for a compiler. Thinking Low-Level, Writing High-Level will teach you to craft source code that results in good machine code once it's run through a compiler. You'll learn:

- How to analyze the output of a compiler to verify that your code generates good machine code
- The types of machine code statements that compilers generate for common control structures, so you can choose the best statements when writing HLL code
- Enough assembly language to read compiler output
- How compilers convert various constant and variable objects into machine data
- With an understanding of how compilers work, you'll be able to write source code that they can translate into elegant machine code.

NEW TO THIS EDITION, COVERAGE OF:

- Programming languages like Swift and Java
- Code generation on modern 64-bit CPUs
- ARM processors on mobile phones and tablets
- Stack-based architectures like the Java Virtual Machine
- Modern language systems like the Microsoft Common Language Runtime

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

This guide was written for readers interested in learning the C++ programming language from scratch, and for both novice and advanced C++ programmers wishing to enhance their knowledge of C++. The text is organized to guide the reader from elementary language concepts to professional software development, with in depth coverage of all the C++ language elements en route.

Program synthesis is the task of automatically finding a program in the underlying programming language that satisfies the user intent expressed in the form of some specification. Since the inception of artificial intelligence in the 1950s, this problem has been considered the holy grail of Computer Science. Despite inherent challenges in the problem such as ambiguity of user intent and a typically enormous search space of programs, the field of program synthesis has developed many different techniques that enable program synthesis in different real-life application domains. It is now used successfully in software engineering, biological discovery, compute-raided education, end-user programming, and data cleaning. In the last decade, several applications of synthesis in the field of programming by examples have been deployed in mass-market industrial products. This monograph is a general overview of the state-of-the-art approaches to program synthesis, its applications, and subfields. It discusses the general principles common to all modern synthesis approaches such as syntactic bias, oracle-guided inductive search, and optimization techniques. We then present a literature review covering the four most common state-of-the-art techniques in program synthesis: enumerative search, constraint solving, stochastic search, and deduction-based programming by examples. It concludes with a brief list of future horizons for the field.

Concepts of Programming Languages, Global Edition

Internals and Design Principles

An Overview

VAX 11

Concepts, Techniques, and Models of Computer Programming

The C# Programming Language

Problem solving is an essential part of every scientific discipline. It has two components: (1) problem identification and formulation, and (2) solution of the formulated problem. One can solve a problem on its own using ad hoc techniques or follow those techniques that have produced efficient solutions to similar problems. This requires the understanding of various algorithm design techniques, how and when to use them to formulate solutions and the context appropriate for each of them. This book advocates the study of algorithm design techniques by presenting most of the useful algorithm design techniques and illustrating them through numerous examples. Contents: Basic Concepts and Introduction to Algorithms:Basic Concepts in Algorithmic AnalysisMathematical PreliminariesData StructuresHeaps and the Disjoint Sets Data StructuresTechniques Based on Recursion:InductionDivide and ConquerDynamic ProgrammingFirst-Cut Techniques: The Greedy ApproachGraph TraversalComplexity of Problems:NP-Complete ProblemsIntroduction to Computational ComplexityLower BoundsCoping with Hardness:BacktrackingRandomized AlgorithmsApproximation AlgorithmsIterative Improvement for Domain-Specific Problems:Network FlowMatchingTechniques in Computational Geometry:Geometric SweepingVoronoi Diagrams Readership: Senior undergraduates, graduate students and professionals in software development. Keywords:

Offers information on using the C++ programming language using the new C++11 standard, covering such topics as concurrency, facilities, standard libraries, and design techniques.

This book constitutes the refereed proceedings of the 11th IFIP WG 6.1 International Conference on Formal Methods for Open Object-Based Distributed Systems, FMOODS 2009, and 29th IFIP WG 6.1 Formal Techniques for Networked and Distributed Systems, FORTE 2009, held in Lisboa, Portugal, in June 2009. The 12 revised full papers presented together with 6 short papers were carefully reviewed and selected from 42 submissions. The papers cover topics such as formal verification, algorithms and implementations, modeling and testing, process algebra and calculus as well as analysis of distributed systems.

The Definitive Java Programming Guide Fully updated for Java SE 11, Java: The Complete Reference, Eleventh Edition explains how to develop, compile, debug, and run Java programs. Best-selling programming author Herb Schildt covers the entire Java language, including its syntax, keywords, and fundamental programming principles. You'll also find information on key portions of the Java API library, such as I/O, the Collections Framework, the stream library, and the concurrency utilities. Swing, JavaBeans, and servlets are examined and numerous examples demonstrate Java in action. Of course, the very important module system is discussed in detail. This Oracle Press resource also offers an introduction to JShell, Java's interactive programming tool. Best of all, the book is written in the clear, crisp, uncompromising style that has made Schildt the choice of millions worldwide. Coverage includes:

- Data types, variables, arrays, and operators
- Control statements
- Classes, objects, and methods
- Method overloading and overriding
- Inheritance
- Local variable type inference
- Interfaces and packages
- Exception handling
- Multithreaded programming
- Enumerations, autoboxing, and annotations
- The I/O classes
- Generics
- Lambda expressions
- Modules
- String handling
- The Collections Framework
- Networking
- Event handling
- AWT
- Swing
- The Concurrent API
- The Stream API
- Regular expressions
- JavaBeans
- Servlets
- Much, much more

Code examples in the book are available for download at www.OraclePressBooks.com.

Joint 11th IFIP WG 6.1 International Conference FMOODS 2009 and 29th IFIP WG 6.1 International Conference FORTE 2009, Lisboa, Portugal, June 9-12, 2009, Proceedings

Java How to Program

Introduction to Java Programming

The C++ Programming Language

LISP 1.5 Programmer's Manual

Core Java, Volume II--Advanced Features

For courses in Java--Introduction to Programming and Object-Oriented Programming. The Fifth Edition of this outstanding text is revised in every detail to enhance clarity, content, presentation, examples, and exercises. Now expanded to include more extensive coverage of advanced Java topics, this new edition is available two ways. Choose the Comprehensive edition (chapters 1-29) that includes the new advanced material or choose the Custom Core version (chapters 1-16) that covers material through exception handling and IO. The early chapters outline the conceptual basis for understanding Java and guide students through simple examples and exercises. Subsequent chapters progressively present Java programming in detail, including using objects for design, culminating with the development of comprehensive Java applications.

Summary Functional Programming in Scala is a serious tutorial for programmers looking to learn FP and apply it to the everyday business of coding. The book guides readers from basic techniques to advanced topics in a logical, concise, and clear progression. In it, you'll find concrete examples and exercises that open up the world of functional programming. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Functional programming (FP) is a style of software development emphasizing functions that don't depend on program state. Functional code is easier to test and reuse, simpler to parallelize, and less prone to bugs than other code. Scala is an emerging JVM language that offers strong support for FP. Its familiar syntax and transparent interoperability with Java make Scala a great place to start learning FP. About the Book Functional Programming in Scala is a serious tutorial for programmers looking to learn FP and apply it to their everyday work. The book guides readers from basic techniques to advanced topics in a logical, concise, and clear progression. In it, you'll find concrete examples and exercises that open up the world of functional programming. This book assumes no prior experience with functional programming. Some prior exposure to Scala or Java is helpful. What's Inside Functional programming concepts The whys and hows of FP How to write multicore programs Exercises and checks for understanding About the Authors Paul Chiusano and Rúnar Bjarnason are recognized experts in functional programming with Scala and are core contributors to the Scalaz library. Table of Contents PART 1 INTRODUCTION TO FUNCTIONAL PROGRAMMING What is functional programming? Getting started with functional programming in Scala Functional data structures Handling errors without exceptions Strictness and laziness Purely functional state PART 2 FUNCTIONAL DESIGN AND COMBINATOR LIBRARIES Purely functional parallelism Property-based testing Parser combinators PART 3 COMMON STRUCTURES IN FUNCTIONAL DESIGN Monoids Monads Applicative and traversable functors PART 4 EFFECTS AND I/O External effects and I/O Local effects and mutable state Stream processing and incremental I/O

Software -- Programming Languages.

Object-oriented programming originated with the Simula language developed by Kristen Nygaard in Oslo in the 1960s. Now, from the birthplace of OOP, comes the new BETA programming language, for which this book is both tutorial and reference. It provides a clear introduction to the basic concepts of OOP and to more advanced topics.

Functional Programming in Scala

Fundamentals

Programming Languages: Principles and Practices

The AWK Programming Language

Introduction to Programming Using Java

Concepts in Programming Languages

The Deitel's groundbreaking How to Program series offers unparalleled breadth and depth of object-oriented programming concepts and intermediate-level topics for further study. This survey of Java programming contains an optional extensive OOD/UML 2 case study on developing and implementing the software for an automated teller machine.

Core Java has long been recognised as the leading no-nonsense tutorial and reliable reference. It carefully explains the most important language and library features and shows how to build real-world applications with thoroughly tested examples. The example programs have been carefully crafted to be easy to understand as well as useful in practice, so you can rely on them as the starting point for your own code. All of the code examples have been rewritten to reflect modern Java best practices and code style. The critical new features introduced with Java SE 9 are all thoroughly explored with the depth and completeness that readers expect from this title. Core Java Volume I walks readers through the all details and takes a deep dive into the most critical features of the language and core libraries. This guide will help you Leverage your existing programming knowledge to quickly master core Java syntax Understand how encapsulation, classes, and inheritance work in Java Master interfaces, inner classes, and lambda expressions for functional programming Improve program robustness with exception handling and effective debugging Write safer, more readable programs with generics and strong typing Use pre-built collections to collect multiple objects for later retrieval Master concurrent programming techniques from the ground up Build modern cross-platform GUIs with standard Swing components Deploy configurable applications and applets, and deliver them across the Internet Simplify concurrency and enhance performance with new functional techniques

Revised edition of: Introduction to Java programming / Y. Daniel Liang, Armstrong Atlantic State University. Tenth edition. Comprehensive version. 2015.

Computer Science: An Overview uses broad coverage and clear exposition to present a complete picture of the dynamic computer science field. Accessible to students from all backgrounds, Glenn Brookshear uses a language-independent context to encourage the development of a practical, realistic understanding of the field. An overview of each of the important areas of Computer Science (e.g. Networking, OS, Computer Architecture, Algorithms) provides students with a general level of proficiency for future courses. The Eleventh Edition features two new contributing authors (David Smith — Indiana University of PA; Dennis Brylow — Marquette University), new, modern examples, and updated coverage based on current technology.

Object-Oriented Software Engineering: An Agile Unified Methodology

Structured Assembly Language Programming

Applications of Object-oriented Programming

Comprehensive Version

Programming Language Concepts

Formal Techniques for Distributed Systems

The design and analysis of efficient data structures has long been recognized as a key component of the Computer Science curriculum. Goodrich, Tomassia and Goldwasser's approach to this classic topic is based on the object-oriented paradigm as the framework of choice for the design of data structures. For each ADT presented in the text, the authors provide an associated Java interface. Concrete data structures realizing the ADTs are provided as Java classes implementing the interfaces. The Java code implementing fundamental data structures in this book is organized in a single Java package, net.datastructures. This package forms a coherent library of data structures and algorithms in Java specifically designed for educational purposes in a way that is complimentary with the Java Collections Framework.

Object-Oriented Software Engineering: An Agile Unified Methodology by David Kung presents a step-by-step methodology that integrates modeling and design, UML, patterns, test-driven development, quality assurance, configuration management, and agile principles throughout the life cycle. The overall approach is casual and easy to follow, with many practical examples that show the theory at work. The author uses his experiences as well as real-world stories to help the reader understand software design principles, patterns, and other software engineering concepts. The book also provides stimulating exercises that go far beyond the type of question that can be answered by simply copying portions of the text.

For courses in computer programming. Evaluating the Fundamentals of Computer Programming Languages Concepts of Computer Programming Languages introduces students to the fundamental concepts of computer programming languages and provides them with the tools necessary to evaluate contemporary and future languages. An in-depth discussion of programming language structures, such as syntax and lexical and syntactic analysis, also prepares students to study compiler design. The Eleventh Edition maintains an up-to-date discussion on the topic with the removal of outdated languages such as Ada and Fortran. The addition of relevant new topics and examples such as reflection and exception handling in Python and Ruby add to the currency of the text. Through a critical analysis of design issues of various program languages, Concepts of Computer Programming Languages teaches students the essential differences between computing with specific languages.

The #1 Guide to Advanced Java Programming, Fully Updated for Java 11 Core Java has long been recognized as the leading, no-nonsense tutorial and reference for experienced programmers who want to write robust Java code for real-world applications. Now, Core Java, Volume II—Advanced Features, Eleventh Edition, has been updated for Java 11, with up-to-date coverage of advanced UI and enterprise programming, networking, security, and Java's powerful new module system. Cay S. Horstmann explores sophisticated new language and library features with the depth and completeness that readers expect from Core Java. He demonstrates how to use these features to build professional-quality applications, using thoroughly tested examples that reflect modern Java style and best practices, including modularization. Horstmann's examples are carefully crafted for easy understanding and maximum practical value, so you can consistently use them to jump-start your own code. Master advanced techniques, idioms, and best practices for writing superior Java code Take full advantage of modern Java I/O APIs, object serialization, and regular expressions Efficiently connect to network services, implement network clients and servers, and harvest web data Query databases and manage database connections with the latest version of JDBC Simplify all aspects of date and time programming with the Java Date and Time API Write internationalized programs that localize dates, times, numbers, text, and GUIs Process code in three powerful ways: the scripting API, compiler API, and annotation processing Learn how to migrate legacy code to the Java Platform Module System Leverage the modern Java security features most valuable to application programmers Program advanced client-side user interfaces, and generate images on the server Use JNI to interoperate with native C code See Core Java, Volume I—Fundamentals, Eleventh Edition (ISBN-13: 978-0-13-516630-7), for expert coverage of fundamental Java and UI programming, including objects, generics, collections, lambda expressions, Swing design, concurrency, and functional programming. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

Program Synthesis

Introduction to Compiler Construction

Java: The Complete Reference, Eleventh Edition

Introduction to Programming Languages

Design Techniques and Analysis

Operating Systems

Kenneth Louden 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.

Lucid is anew 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

For a one-semester undergraduate course in operating systems for computer science, computer engineering, and electrical engineering majors. Winner of the 2009 Textbook Excellence Award from the Text and Academic Authors Association (TAA)!

Operating Systems: Internals and Design Principles is a comprehensive and unified introduction to operating systems. By using several innovative tools, Stallings makes it possible to understand critical core concepts that can be fundamentally challenging. The new edition includes the implementation of web based animations to aid visual learners. At key points in the book, students are directed to view an animation and then are provided with assignments to alter the animation input and analyze the results.

The concepts are then enhanced and supported by end-of-chapter case studies of UNIX, Linux and Windows Vista. These provide students with a solid understanding of the key mechanisms of modern operating systems and the types of design tradeoffs and decisions involved in OS design. Because they are embedded into the text as end of chapter material, students are able to apply them right at the point of discussion. This approach is equally useful as a basic reference and as an up-to-date survey of the state of the art.

Algorithms

Core Java

Programming in C C++ Scheme Prolog C# and Python

Data Structures and Algorithms in Java