Refresher On .NET And Software Design Fundamentals For C

Hands-On Design Patterns with C# and .NET Core

Apply design patterns to solve problems in software architecture and programming using C# 7.x and .NET Core 2 Key FeaturesEnhance your programming skills by implementing efficient design patterns for C# and .NETExplore design patterns for functional and reactive programming to build robust and scalable applicationsDiscover how to work effectively with microservice and serverless architecturesBook Description Design patterns are essentially reusable solutions to common programming problems. When used correctly, they meet crucial software requirements with ease and reduce costs. This book will uncover effective ways to use design patterns and demonstrate their implementation with executable code specific to both C# and .NET Core. Hands-On Design Patterns with C# and .NET Core begins with an overview of object-oriented programming (OOP) and SOLID principles. It provides an in-depth explanation of the Gang of Four (GoF) design patterns such as creational, structural, and behavioral. The book then takes you through functional, reactive, and concurrent patterns, helping you write better code with streams, threads, and coroutines. Toward the end of the book, you'll learn about the latest trends in architecture, exploring design patterns for microservices, serverless, and cloud native applications. You'll even understand the considerations that need to be taken into account when choosing between different architectures such as microservices and MVC. By the end of the book, you will be able to write efficient and clear code and be comfortable working on scalable and maintainable projects of any size. What you will learnMake your code more flexible by applying SOLID principlesFollow the Test-driven development (TDD) approach in your .NET Core projectsGet to grips with efficient database migration, data persistence, and testing techniquesConvert a console application to a web application using the right MVPWrite asynchronous, multithreaded, and parallel codeImplement MVVM and work with RxJS and AngularJS to deal with changes in databasesExplore the features of microservices, serverless programming, and cloud computingWho this book is for If you have a basic understanding of C# and the .NET Core framework, this book will help you write code that is easy to reuse and maintain with the help of proven design patterns that you can implement in your code.

Managed C++ and .NET Development

This book answers the question, \"Do you need to learn C# or VB .NET to develop in .NET?\" You'll learn that the answer is, in fact, \"no\"—at least until you're good and ready. With Managed C++ and .NET Development, your hard-earned skills as an established C++ developer or beginner won't be wasted. Microsoft touts .NET as language-neutral, and this book proves it, at least in the area of C++. Managed C++ and .NET Development is truly a .NET book applying C++ as its development language—not another C++ syntax book that happens to cover .NET. There's no other book out there like this one. It's written for the C++ programmer who wants to write new .NET programs and not just migrate existing ones. To this end, author Stephen R. G. Fraser covers topics such as collections, multithreading, I/O, XML, ADO.NET, GDI+, Windows Forms (using the new GUI design tool introduced in Visual Studio .NET 2003), Web services, and Web Forms, focusing strictly on code development.

Professional C# 2012 and .NET 4.5

Intermediate to advanced technique coverage, updated for C# 2012 and .NET 4.5 This guide is geared towards experienced programmers looking to update and enhance their skills in writing Windows

applications, web apps, and Metro apps with C# and .NET 4.5. Packed with information about intermediate and advanced features, this book includes everything professional developers need to know about C# and putting it to work. Covers challenging .NET features including Language Integrated Query (LINQ), LINQ to SQL, LINQ to XML, WCF, WPF, Workflow, and Generics Puts the new Async keyword to work and features refreshers on .NET architecture, objects, types, inheritance, arrays, operators, casts, delegates, events, strings, regular expressions, collections, and memory management Explores new options and interfaces presented by Windows 8 development, WinRT, and Metro style apps Includes traditional Windows forms programming, ASP.NET web programming with C#, and working in Visual Studio 2012 with C# Professional C# 2012 and .NET 4.5 is a comprehensive guide for experienced programmers wanting to maximize these technologies.

Application Development Using C# and .NET

The practical guide to C# .NET development for experienced programmers. Running case study covers the entire .NET development process. .NET attributes, collections, threading, security, versioning, remoting, and more.

Design Patterns in Modern C++

Apply modern C++17 to the implementations of classic design patterns. As well as covering traditional design patterns, this book fleshes out new patterns and approaches that will be useful to C++ developers. The author presents concepts as a fun investigation of how problems can be solved in different ways, along the way using varying degrees of technical sophistication and explaining different sorts of trade-offs. Design Patterns in Modern C++ also provides a technology demo for modern C++, showcasing how some of its latest features (e.g., coroutines) make difficult problems a lot easier to solve. The examples in this book are all suitable for putting into production, with only a few simplifications made in order to aid readability. What You Will Learn Apply design patterns to modern C++ programming Use creational patterns of builder, factories, prototype and singleton Implement structural patterns such as adapter, bridge, decorator, facade and more Work with the behavioral patterns such as chain of responsibility, command, iterator, mediator and more Apply functional design patterns such as Monad and more Who This Book Is For Those with at least some prior programming experience, especially in C++.

Pro Visual C++/CLI and the .NET 3.5 Platform

Pro Visual C++/CLI and the .NET 3.5 Platform is about writing .NET applications using C++/CLI. While readers are learning the ins and outs of .NET application development, they will also be learning the syntax of C++, both old and new to .NET. Readers will also gain a good understanding of the .NET architecture. This is truly a .NET book applying C++ as its development language—not another C++ syntax book that happens to cover .NET.

C#

Are you searching for a coding language that will work for you? Do you want to create your own website of desktop applications? C# is the right choice for you. When it comes to programming and choosing a coding language there are so many on the market that the beginner is faced with a bewildering choice and it can appear that they all do much the same job. But if creating visually elegant and functional applications is what you want, then C# is the one for you. Now, with C#: The Beginner’s Ultimate Guide to Learn C# Programming Step by Step, even a complete beginner can start to understand and develop programs, with help through chapters on: • What C# is • An overview of the features • Program structure and basic syntax • Working with variables • The conditional statements • C# methods • 7 data types supported by C# • Accurate use of operators and conditional statements • Proper use of arrays, structures, and encapsulations • And lots more… With the information contained in this book you could be on your way to learning how C# can

develop and expand on your programming knowledge and lead you to exciting new discoveries in this fascinating subject. Get a copy of C#: The Beginner's Ultimate Guide to Learn C# Programming Step by Step now and begin your journey to a better and simpler world of programming.

Design Patterns Explained

This book introduces the programmer to patterns: how to understand them, how to use them, and then how to implement them into their programs. This book focuses on teaching design patterns instead of giving more specialized patterns to the relatively few.

C# 10 and .NET 6 – Modern Cross-Platform Development

Publisher's Note: Microsoft will stop supporting .NET 6 from November 2024. The newer 8th edition of the book is available that covers .NET 8 (end-of-life November 2026) with C# 12 and EF Core 8. Purchase of the print or Kindle book includes a free PDF eBook Key Features Explore the newest additions to C# 10, the .NET 6 class library, and Entity Framework Core 6 Create professional websites and services with ASP.NET Core 6 and Blazor Build cross-platform apps for Windows, macOS, Linux, iOS, and Android Book DescriptionExtensively revised to accommodate all the latest features that come with C# 10 and .NET 6, this latest edition of our comprehensive guide will get you coding in C# with confidence. You'll learn object-oriented programming, writing, testing, and debugging functions, implementing interfaces, and inheriting classes. The book covers the .NET APIs for performing tasks like managing and querying data, monitoring and improving performance, and working with the filesystem, async streams, and serialization. You'll build and deploy cross-platform apps, such as websites and services using ASP.NET Core. Instead of distracting you with unnecessary application code, the first twelve chapters will teach you about C# language constructs and many of the .NET libraries through simple console applications. In later chapters, having mastered the basics, you'll then build practical applications and services using ASP.NET Core, the Model-View-Controller (MVC) pattern, and Blazor.What you will learn Build rich web experiences using Blazor, Razor Pages, the Model-View-Controller (MVC) pattern, and other features of ASP.NET Core Build your own types with object-oriented programming Write, test, and debug functions Query and manipulate data using LINQ Integrate and update databases in your apps using Entity Framework Core, Microsoft SQL Server, and SQLite Build and consume powerful services using the latest technologies, including gRPC and GraphQL Build cross-platform apps using XAML Who this book is forDesigned for both beginners and C# and .NET programmers who have worked with C# in the past and want to catch up with the changes made in the past few years, this book doesn't need you to have any C# or .NET experience. However, you should have a general understanding of programming before you jump in.

Xamarin Mobile Application Development for Android

A stepbystep tutorial that follows the development of a simple Android app from end to end, through troubleshooting, and then distribution. The language used assumes a knowledge of basic C#.If you are a C# developer with a desire to develop Android apps and want to enhance your existing skill set, then this book is for you. It is assumed that you have a good working knowledge of C#, .NET, and objectoriented software development. Familiarity with rich client technologies such as WPF or Silverlight is also helpful, but not required.

Application Development Using Visual Basic and .NET

Learn to develop professional applications with VB and the .NET platform in a unique building block approach. This guide also presents the basic concepts of the .NET framework, which is the common language.

ADO.NET in a Nutshell

Written by experts on the Microsoft® .NET programming platform, ADO.NET in a Nutshell delivers everything .NET programmers will need to get a jump-start on ADO.NET technology or to sharpen their skills even further. In the tradition of O'Reilly's In a Nutshell Series, ADO.NET in a Nutshell is the most complete and concise source of ADO.NET information available.ADO.NET is the suite of data access technologies in the .NET Framework that developers use to build applications services accessing relational data and XML. Connecting to databases is a fundamental part of most applications, whether they are web, Windows®, distributed, client/server, XML Web Services, or something entirely different. But ADO.NET is substantially different from Microsoft's previous data access technologies--including the previous version of ADO--so even experienced developers need to understand the basics of the new disconnected model before they start programming with it.Current with the .NET Framework 1.1, ADO.NET in a Nutshell offers one place to look when you need help with anything related to this essential technology, including a reference to the ADO.NET namespaces and object model. In addition to being a valuable reference, this book provides a concise foundation for programming with ADO.NET and covers a variety of issues that programmers face when developing web applications or Web Services that rely on database access. Using C#, this book presents real world, practical examples that will help you put ADO.NET to work immediately.Topics covered in the book include: An Introduction to ADO.NET Connections, Commands and DataReaders Disconnected Data Advanced DataSets Transactions DataViews and Data Binding XML and the DataSet Included with the book is a Visual Studio .NET add-in that integrates the entire reference directly into your help files. When combining ADO.NET in a Nutshell with other books from O'Reilly's .NET In a Nutshell series, you'll have a comprehensive, detailed and independent reference collection that will help you become more productive.

Introduction to Compilers and Language Design

A compiler translates a program written in a high level language into a program written in a lower level language. For students of computer science, building a compiler from scratch is a rite of passage: a challenging and fun project that offers insight into many different aspects of computer science, some deeply theoretical, and others highly practical. This book offers a one semester introduction into compiler construction, enabling the reader to build a simple compiler that accepts a C-like language and translates it into working X86 or ARM assembly language. It is most suitable for undergraduate students who have some experience programming in C, and have taken courses in data structures and computer architecture.

Object-Oriented Analysis and Design

Object-oriented analysis and design (OOAD) has over the years, become a vast field, encompassing such diverse topics as design process and principles, documentation tools, refactoring, and design and architectural patterns. For most students the learning experience is incomplete without implementation. This new textbook provides a comprehensive introduction to OOAD. The salient points of its coverage are: • A sound footing on object-oriented concepts such as classes, objects, interfaces, inheritance, polymorphism, dynamic linking, etc. • A good introduction to the stage of requirements analysis. • Use of UML to document user requirements and design. • An extensive treatment of the design process. • Coverage of implementation issues. • Appropriate use of design and architectural patterns. • Introduction to the art and craft of refactoring. • Pointers to resources that further the reader’s knowledge. All the main case-studies used for this book have been implemented by the authors using Java. The text is liberally peppered with snippets of code, which are short and fairly self-explanatory and easy to read. Familiarity with a Java-like syntax and a broad understanding of the structure of Java would be helpful in using the book to its full potential.

Grokking Algorithms

\"This book does the impossible: it makes math fun and easy!\" - Sander Rossel, COAS Software Systems

Grokking Algorithms is a fully illustrated, friendly guide that teaches you how to apply common algorithms to the practical problems you face every day as a programmer. You'll start with sorting and searching and, as you build up your skills in thinking algorithmically, you'll tackle more complex concerns such as data compression and artificial intelligence. Each carefully presented example includes helpful diagrams and fully annotated code samples in Python. Learning about algorithms doesn't have to be boring! Get a sneak peek at the fun, illustrated, and friendly examples you'll find in Grokking Algorithms on Manning Publications' YouTube channel. Continue your journey into the world of algorithms with Algorithms in Motion, a practical, hands-on video course available exclusively at Manning.com (www.manning.com/livevideo/algorithms-?in-motion). Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology An algorithm is nothing more than a step-by-step procedure for solving a problem. The algorithms you'll use most often as a programmer have already been discovered, tested, and proven. If you want to understand them but refuse to slog through dense multipage proofs, this is the book for you. This fully illustrated and engaging guide makes it easy to learn how to use the most important algorithms effectively in your own programs. About the Book Grokking Algorithms is a friendly take on this core computer science topic. In it, you'll learn how to apply common algorithms to the practical programming problems you face every day. You'll start with tasks like sorting and searching. As you build up your skills, you'll tackle more complex problems like data compression and artificial intelligence. Each carefully presented example includes helpful diagrams and fully annotated code samples in Python. By the end of this book, you will have mastered widely applicable algorithms as well as how and when to use them. What's Inside Covers search, sort, and graph algorithms Over 400 pictures with detailed walkthroughs Performance trade-offs between algorithms Python-based code samples About the Reader This easy-to-read, picture-heavy introduction is suitable for self-taught programmers, engineers, or anyone who wants to brush up on algorithms. About the Author Aditya Bhargava is a Software Engineer with a dual background in Computer Science and Fine Arts. He blogs on programming at adit.io. Table of Contents Introduction to algorithms Selection sort Recursion Quicksort Hash tables Breadth-first search Dijkstra's algorithm Greedy algorithms Dynamic programming K-nearest neighbors

The Algorithm Design Manual

This newly expanded and updated second edition of the best-selling classic continues to take the \"mystery\" out of designing algorithms, and analyzing their efficacy and efficiency. Expanding on the first edition, the book now serves as the primary textbook of choice for algorithm design courses while maintaining its status as the premier practical reference guide to algorithms for programmers, researchers, and students. The reader-friendly Algorithm Design Manual provides straightforward access to combinatorial algorithms technology, stressing design over analysis. The first part, Techniques, provides accessible instruction on methods for designing and analyzing computer algorithms. The second part, Resources, is intended for browsing and reference, and comprises the catalog of algorithmic resources, implementations and an extensive bibliography. NEW to the second edition: • Doubles the tutorial material and exercises over the first edition • Provides full online support for lecturers, and a completely updated and improved website component with lecture slides, audio and video • Contains a unique catalog identifying the 75 algorithmic problems that arise most often in practice, leading the reader down the right path to solve them • Includes several NEW \"war stories\" relating experiences from real-world applications • Provides up-to-date links leading to the very best algorithm implementations available in C, C++, and Java

Microsoft Azure Essentials - Fundamentals of Azure

Microsoft Azure Essentials from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. The first ebook in the series, Microsoft Azure Essentials: Fundamentals of Azure, introduces developers and IT professionals to the wide range of capabilities in Azure. The authors - both Microsoft MVPs in Azure - present both conceptual and how-to content for key areas, including: Azure Websites and Azure Cloud Services Azure Virtual Machines Azure Storage Azure

Virtual Networks Databases Azure Active Directory Management tools Business scenarios Watch Microsoft Press's blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the "Microsoft Azure Essentials" series.

Objects, Abstraction, Data Structures and Design

Koffman and Wolfgang introduce data structures in the context of C++ programming. They embed the design and implementation of data structures into the practice of sound software design principles that are introduced early and reinforced by 20 case studies. Data structures are introduced in the C++ STL format whenever possible. Each new data structure is introduced by describing its interface in the STL. Next, one or two simpler applications are discussed then the data structure is implemented following the interface previously introduced. Finally, additional advanced applications are covered in the case studies, and the cases use the STL. In the implementation of each data structure, the authors encourage students to perform a thorough analysis of the design approach and expected performance before actually undertaking detailed design and implementation. Students gain an understanding of why different data structures are needed, the applications they are suited for, and the advantages and disadvantages of their possible implementations. Case studies follow a five-step process (problem specification, analysis, design, implementation, and testing) that has been adapted to object-oriented programming. Students are encouraged to think critically about the five-step process and use it in their problem solutions. Several problems have extensive discussions of testing and include methods that automate the testing process. Some cases are revisited in later chapters and new solutions are provided that use different data structures. The text assumes a first course in programming and is designed for Data Structures or the second course in programming, especially those courses that include coverage of OO design and algorithms. A C++ primer is provided for students who have taken a course in another programming language or for those who need a review in C++. Finally, more advanced coverage of C++ is found in an appendix. Course Hierarchy: Course is the second course in the CS curriculum Required of CS majors Course names include Data Structures and Data Structures & Algorithms

Implementing Design Patterns in C# and .NET 5

Implement robust applications by applying efficient Design Patterns with .NET 5 and C# KEY FEATURES ? Detailed theoretical concepts covered, including the use of encapsulation, interfaces, and inheritance. ? Access to solutions applied for software strategy and final product output. ? Simplified demonstration of real applications implementing numerous design patterns. DESCRIPTION This book covers detailed aspects of Design Patterns and Object-Oriented Programming concepts using the most modern version of the C# language and .NET platform, including many real-world examples and good practice guidelines that help developers in building robust and extensible applications. The book begins with the essential concepts of C# programming and the .NET platform. You get your foundation strong by understanding SOLID Principles and the actual implementation of reliable applications. You will be working on most common Design Patterns such as Abstract Factory, Adapter, Composite, Proxy, Command, Strategy, Observer, Factory Method, Singleton, Builder, Interpreter, Mediator, and many other patterns that will help you to create solid enterprise applications. You will also witness the performance of these design patterns in a real software development environment with the help of practical examples. After learning the most common Design Patterns practiced in .NET enterprise applications, the reader will be able to understand and apply good practices of software development based on the object-oriented paradigm to develop complex enterprise applications efficiently and simply. WHAT YOU WILL LEARN ? Fine-tune your knowledge about interfaces, polymorphism, and encapsulation. ? Learn to practice implementing design patterns in enterprise applications. ? Implement rich design patterns: Observer, Strategy, Command, Proxy, and more. ? Get to learn the latest additional design patterns such as Builder, Bridge, and Decorator. ? Includes illustrations, examples, and real use-cases of .NET 5.0 applications. WHO THIS BOOK IS FOR This book is for .NET developers, application developers, and software engineers who want to develop .NET applications with proven techniques and build error-free applications. This book also attracts fresh graduates and entry-level developers as long as basic knowledge about .NET is known to them. TABLE OF CONTENTS 1. C#

Fundamentals 2. Introduction to .NET 5 3. Basic Concepts of Object-Oriented Programming 4. Interfaces in C# 5. Encapsulation and Polymorphism in C# 6. SOLID Principles in C# 7. Abstract Factory 8. Abstract Factory 9. Prototype 10. Factory Method 11. Adapter 12. Composite 13. Proxy 14. Command 15. Strategy 16. Observer 17. Good Practices and Additional Design Patterns

Programming C#

'Programming C' explains the development of desktop and Internet applications, including Windows Forms, ADO.NET, ASP.NET (including Web Forms), and Web Services. Newly updated for version 1.1 of the .NET framework and Visual Studio .NET 2003, it includesnew tips and answers to common queries about C.

Deep Learning for Coders with fastai and PyTorch

Deep learning is often viewed as the exclusive domain of math PhDs and big tech companies. But as this hands-on guide demonstrates, programmers comfortable with Python can achieve impressive results in deep learning with little math background, small amounts of data, and minimal code. How? With fastai, the first library to provide a consistent interface to the most frequently used deep learning applications. Authors Jeremy Howard and Sylvain Gugger, the creators of fastai, show you how to train a model on a wide range of tasks using fastai and PyTorch. You'll also dive progressively further into deep learning theory to gain a complete understanding of the algorithms behind the scenes. Train models in computer vision, natural language processing, tabular data, and collaborative filtering Learn the latest deep learning techniques that matter most in practice Improve accuracy, speed, and reliability by understanding how deep learning models work Discover how to turn your models into web applications Implement deep learning algorithms from scratch Consider the ethical implications of your work Gain insight from the foreword by PyTorch cofounder, Soumith Chintala

Code That Fits in Your Head

How to Reduce Code Complexity and Develop Software More Sustainably \"Mark Seemann is well known for explaining complex concepts clearly and thoroughly. In this book he condenses his wide-ranging software development experience into a set of practical, pragmatic techniques for writing sustainable and human-friendly code. This book will be a must-read for every programmer.\" -- Scott Wlaschin, author of Domain Modeling Made Functional Code That Fits in Your Head offers indispensable, practical advice for writing code at a sustainable pace and controlling the complexity that causes projects to spin out of control. Reflecting decades of experience helping software teams succeed, Mark Seemann guides you from zero (no code) to deployed features and shows how to maintain a good cruising speed as you add functionality, address cross-cutting concerns, troubleshoot, and optimize. You'll find valuable ideas, practices, and processes for key issues ranging from checklists to teamwork, encapsulation to decomposition, API design to unit testing. Seemann illuminates his insights with code examples drawn from a complete sample project. Written in C#, they're designed to be clear and useful to anyone who uses any object-oriented language including Java , C++, and Python. To facilitate deeper exploration, all code and extensive commit messages are available for download. Choose mindsets and processes that work, and escape bad metaphors that don't Use checklists to liberate yourself, improving outcomes with the skills you already have Get past "analysis paralysis" by creating and deploying a vertical slice of your application Counteract forces that lead to code rot and unnecessary complexity Master better techniques for changing code behavior Discover ways to solve code problems more quickly and effectively Think more productively about performance and security If you've ever suffered through bad projects or had to cope with unmaintainable legacy code, this guide will help you make things better next time and every time. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

Operating Systems

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.

Eloquent JavaScript, 3rd Edition

Completely revised and updated, this best-selling introduction to programming in JavaScript focuses on writing real applications. JavaScript lies at the heart of almost every modern web application, from social apps like Twitter to browser-based game frameworks like Phaser and Babylon. Though simple for beginners to pick up and play with, JavaScript is a flexible, complex language that you can use to build full-scale applications. This much anticipated and thoroughly revised third edition of Eloquent JavaScript dives deep into the JavaScript language to show you how to write beautiful, effective code. It has been updated to reflect the current state of Java¬Script and web browsers and includes brand-new material on features like class notation, arrow functions, iterators, async functions, template strings, and block scope. A host of new exercises have also been added to test your skills and keep you on track. As with previous editions, Haverbeke continues to teach through extensive examples and immerses you in code from the start, while exercises and full-chapter projects give you hands-on experience with writing your own programs. You start by learning the basic structure of the JavaScript language as well as control structures, functions, and data structures to help you write basic programs. Then you'll learn about error handling and bug fixing, modularity, and asynchronous programming before moving on to web browsers and how JavaScript is used to program them. As you build projects such as an artificial life simulation, a simple programming language, and a paint program, you'll learn how to: - Understand the essential elements of programming, including syntax, control, and data - Organize and clarify your code with object-oriented and functional programming techniques - Script the browser and make basic web applications - Use the DOM effectively to interact with browsers - Harness Node.js to build servers and utilities Isn't it time you became fluent in the language of the Web? * All source code is available online in an inter¬active sandbox, where you can edit the code, run it, and see its output instantly.

Microsoft Azure Essentials Azure Machine Learning

Microsoft Azure Essentials from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. This third ebook in the series introduces Microsoft Azure Machine Learning, a service that a developer can use to build predictive analytics models (using training datasets from a variety of data sources) and then easily deploy those models for consumption as cloud web services. The ebook presents an overview of modern data science theory and principles, the associated workflow, and then covers some of the more common machine learning algorithms in use today. It builds a variety of predictive analytics models using real world data, evaluates several different machine learning algorithms and modeling strategies, and then deploys the finished models as machine learning web services on Azure within a matter of minutes. The ebook also expands on a working Azure Machine Learning predictive model example to explore the types of client and server applications you can create to consume Azure Machine Learning web services. Watch Microsoft Press’s blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the Microsoft Azure Essentials series.

.NET Design Patterns

Explore the world of .NET design patterns and bring the benefits that the right patterns can offer to your toolkit today About This Book Dive into the powerful fundamentals of .NET framework for software development The code is explained piece by piece and the application of the pattern is also showcased. This fast-paced guide shows you how to implement the patterns into your existing applications Who This Book Is For This book is for those with familiarity with .NET development who would like to take their skills to the next level and be in the driver's seat when it comes to modern development techniques. Basic object-oriented C# programming experience and an elementary familiarity with the .NET framework library is required. What You Will Learn Put patterns and pattern catalogs into the right perspective Apply patterns for software development under C#/.NET Use GoF and other patterns in real-life development scenarios Be able to enrich your design vocabulary and well articulate your design thoughts Leverage object/functional programming by mixing OOP and FP Understand the reactive programming model using Rx and RxJs Writing compositional code using C# LINQ constructs Be able to implement concurrent/parallel programming techniques using idioms under .NET Avoiding pitfalls when creating compositional, readable, and maintainable code using imperative, functional, and reactive code. In Detail Knowing about design patterns enables developers to improve their code base, promoting code reuse and making their design more robust. This book focuses on the practical aspects of programming in .NET. You will learn about some of the relevant design patterns (and their application) that are most widely used. We start with classic object-oriented programming (OOP) techniques, evaluate parallel programming and concurrency models, enhance implementations by mixing OOP and functional programming, and finally to the reactive programming model where functional programming and OOP are used in synergy to write better code. Throughout this book, we'll show you how to deal with architecture/design techniques, GoF patterns, relevant patterns from other catalogs, functional programming, and reactive programming techniques. After reading this book, you will be able to convincingly leverage these design patterns (factory pattern, builder pattern, prototype pattern, adapter pattern, facade pattern, decorator pattern, observer pattern and so on) for your programs. You will also be able to write fluid functional code in .NET that would leverage concurrency and parallelism! Style and approach This tutorial-based book takes a step-by-step approach. It covers the major patterns and explains them in a detailed manned along with code examples.

The Art of Unit Testing

Summary The Art of Unit Testing, Second Edition guides you step by step from writing your first simple tests to developing robust test sets that are maintainable, readable, and trustworthy. You'll master the foundational ideas and quickly move to high-value subjects like mocks, stubs, and isolation, including frameworks such as Moq, FakeItEasy, and Typemock Isolator. You'll explore test patterns and organization, working with legacy code, and even \"untestable\" code. Along the way, you'll learn about integration testing and techniques and tools for testing databases and other technologies. About this Book You know you should be unit testing, so why aren't you doing it? If you're new to unit testing, if you find unit testing tedious, or if you're just not getting enough payoff for the effort you put into it, keep reading. The Art of Unit Testing, Second Edition guides you step by step from writing your first simple unit tests to building complete test sets that are maintainable, readable, and trustworthy. You'll move quickly to more complicated subjects like mocks and stubs, while learning to use isolation (mocking) frameworks like Moq, FakeItEasy, and Typemock Isolator. You'll explore test patterns and organization, refactor code applications, and learn how to test \"untestable\" code. Along the way, you'll learn about integration testing and techniques for testing with databases. The examples in the book use C#, but will benefit anyone using a statically typed language such as Java or C++. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Create readable, maintainable, trustworthy tests Fakes, stubs, mock objects, and isolation (mocking) frameworks Simple dependency injection techniques Refactoring legacy code About the Author Roy Osherove has been coding for over 15 years, and he consults and trains teams worldwide on the gentle art of unit testing and test-driven development. His blog is at ArtOfUnitTesting.com. Table of Contents PART 1 GETTING STARTED The basics of unit testing A first unit test PART 2 CORE

TECHNIQUES Using stubs to break dependencies Interaction testing using mock objects Isolation (mocking) frameworks Digging deeper into isolation frameworks PART 3 THE TEST CODE Test hierarchies and organization The pillars of good unit tests PART 4 DESIGN AND PROCESS Integrating unit testing into the organization Working with legacy code Design and testability

The C# Player's Guide

The C# Player's Guide (3rd Edition) is the ultimate guide for people starting out with C#, whether you are new to programming, or an experienced vet. This guide takes you from your journey's beginning, through the most challenging parts of programming in C#, and does so in a way that is casual, informative, and fun.This version of the book is updated for C# 7.0 and Visual Studio 2017Get off the ground quickly, with a gentle introduction to C#, Visual Studio, and a step-by-step walkthrough and explanation of how to make your first C# program.Learn the fundamentals of procedural programming, including variables, math operations, decision making, looping, methods, and an in-depth look at the C# type system.Delve into object-oriented programming, from start to finish, including inheritance, polymorphism, interfaces, and generics.Explore some of the most useful advanced features of C#, and take on some of the most common tasks that a programmer will tackle.Learn to control the tools and tricks of programming in C#, including the .NET framework, dealing with compiler errors, and hunting down bugs in your program.Master the needed skills by taking on a large collection of Try It Out! challenges, to ensure that you've learned the things you need to.With this guide, you'll soon be off to save the world (or take over it) with your own awesome C# programs!

Hands-On System Programming with C++

A hands-on guide to making system programming with C++ easy Key FeaturesWrite system-level code leveraging C++17Learn the internals of the Linux Application Binary Interface (ABI) and apply it to system programmingExplore C++ concurrency to take advantage of server-level constructsBook Description C++ is a general-purpose programming language with a bias toward system programming as it provides ready access to hardware-level resources, efficient compilation, and a versatile approach to higher-level abstractions. This book will help you understand the benefits of system programming with C++17. You will gain a firm understanding of various C, C++, and POSIX standards, as well as their respective system types for both C++ and POSIX. After a brief refresher on C++, Resource Acquisition Is Initialization (RAII), and the new C++ Guideline Support Library (GSL), you will learn to program Linux and Unix systems along with process management. As you progress through the chapters, you will become acquainted with C++'s support for IO. You will then study various memory management methods, including a chapter on allocators and how they benefit system programming. You will also explore how to program file input and output and learn about POSIX sockets. This book will help you get to grips with safely setting up a UDP and TCP server/client. Finally, you will be guided through Unix time interfaces, multithreading, and error handling with C++ exceptions. By the end of this book, you will be comfortable with using C++ to program high-quality systems. What you will learnUnderstand the benefits of using C++ for system programmingProgram Linux/Unix systems using C++Discover the advantages of Resource Acquisition Is Initialization (RAII)Program both console and file input and outputUncover the POSIX socket APIs and understand how to program themExplore advanced system programming topics, such as C++ allocatorsUse POSIX and C++ threads to program concurrent systemsGrasp how C++ can be used to create performant system applicationsWho this book is for If you are a fresh developer with intermediate knowledge of C++ but little or no knowledge of Unix and Linux system programming, this book will help you learn system programming with C++ in a practical way.

Software Engineering Design

Taking a learn-by-doing approach, Software Engineering Design: Theory and Practice uses examples, review questions, chapter exercises, and case study assignments to provide students and practitioners with the

understanding required to design complex software systems. Explaining the concepts that are immediately relevant to software designers, it be

Dive Into Python

Whether you're an experienced programmer looking to get into Python or grizzled Python veteran who remembers the days when you had to import the string module, Dive Into Python is your 'desert island' Python book. — Joey deVilla, Slashdot contributor As a complete newbie to the language...I constantly had those little thoughts like, 'this is the way a programming language should be taught.' — Lasse Koskela , JavaRanch Apress has been profuse in both its quantity and quality of releasesand (this book is) surely worth adding to your technical reading budget for skills development. — Blane Warrene, Technology Notes I am reading this ... because the language seems like a good way to accomplish programming tasks that don't require the low-level bit handling power of C. — Richard Bejtlich, TaoSecurity Python is a new and innovative scripting language. It is set to replace Perl as the programming language of choice for shell scripters, and for serious application developers who want a feature-rich, yet simple language to deploy their products. Dive Into Python is ahands-on guide to the Python language. Each chapter starts with a real, complete code sample, proceeds to pick it apart and explain the pieces, and then puts it all back together in a summary at the end. This is the perfect resource for you if you like to jump into languages fast and get going right away. If you're just starting to learn Python, first pick up a copy of Magnus Lie Hetland's Practical Python.

The Missing README

Key concepts and best practices for new software engineers — stuff critical to your workplace success that you weren’t taught in school. For new software engineers, knowing how to program is only half the battle. You’ll quickly find that many of the skills and processes key to your success are not taught in any school or bootcamp. The Missing README fills in that gap—a distillation of workplace lessons, best practices, and engineering fundamentals that the authors have taught rookie developers at top companies for more than a decade. Early chapters explain what to expect when you begin your career at a company. The book’s middle section expands your technical education, teaching you how to work with existing codebases, address and prevent technical debt, write production-grade software, manage dependencies, test effectively, do code reviews, safely deploy software, design evolvable architectures, and handle incidents when you’re on-call. Additional chapters cover planning and interpersonal skills such as Agile planning, working effectively with your manager, and growing to senior levels and beyond. You’ll learn: How to use the legacy code change algorithm, and leave code cleaner than you found it How to write operable code with logging, metrics, configuration, and defensive programming How to write deterministic tests, submit code reviews, and give feedback on other people’s code The technical design process, including experiments, problem definition, documentation, and collaboration What to do when you are on-call, and how to navigate production incidents Architectural techniques that make code change easier Agile development practices like sprint planning, stand-ups, and retrospectives This is the book your tech lead wishes every new engineer would read before they start. By the end, you’ll know what it takes to transition into the workplace–from CS classes or bootcamps to professional software engineering.

Unit Testing Principles, Practices, and Patterns

\"This book is an indispensable resource.\" - Greg Wright, Kainos Software Ltd. Radically improve your testing practice and software quality with new testing styles, good patterns, and reliable automation. Key Features A practical and results-driven approach to unit testing Refine your existing unit tests by implementing modern best practices Learn the four pillars of a good unit test Safely automate your testing process to save time and money Spot which tests need refactoring, and which need to be deleted entirely Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About The Book Great testing practices maximize your project quality and delivery speed by

identifying bad code early in the development process. Wrong tests will break your code, multiply bugs, and increase time and costs. You owe it to yourself—and your projects—to learn how to do excellent unit testing. Unit Testing Principles, Patterns and Practices teaches you to design and write tests that target key areas of your code including the domain model. In this clearly written guide, you learn to develop professional-quality tests and test suites and integrate testing throughout the application life cycle. As you adopt a testing mindset, you'll be amazed at how better tests cause you to write better code. What You Will Learn Universal guidelines to assess any unit test Testing to identify and avoid anti-patterns Refactoring tests along with the production code Using integration tests to verify the whole system This Book Is Written For For readers who know the basics of unit testing. Examples are written in C# and can easily be applied to any language. About the Author Vladimir Khorikov is an author, blogger, and Microsoft MVP. He has mentored numerous teams on the ins and outs of unit testing. Table of Contents: PART 1 THE BIGGER PICTURE 1 ¦ The goal of unit testing 2 ¦ What is a unit test? 3 ¦ The anatomy of a unit test PART 2 MAKING YOUR TESTS WORK FOR YOU 4 ¦ The four pillars of a good unit test 5 ¦ Mocks and test fragility 6 ¦ Styles of unit testing 7 ¦ Refactoring toward valuable unit tests PART 3 INTEGRATION TESTING 8 ¦ Why integration testing? 9 ¦ Mocking best practices 10 ¦ Testing the database PART 4 UNIT TESTING ANTI-PATTERNS 11 ¦ Unit testing anti-patterns

Beginning ASP.NET 4.5 in C#

This book is the most comprehensive and up to date introduction to ASP.NET ever written. Focussing solely on C#, with no code samples duplicated in other languages, award winning author Matthew MacDonald introduces you to the very latest thinking and best practices for the ASP.NET 4.5 technology. Assuming no prior coding experience, you'll be taught everything you need to know from the ground up. Starting from first principals, you'll learn the skills you need to be an effective ASP.NET developer who is ready to progress to more sophisticated projects and professional work. You'll be taught how to use object orientation and code-behind techniques to lay out your code clearly in a way other developers can easily understand. You'll learn how to query databases from within you web pages, spice up your layouts using ASP.NET AJAX and deploy your finished websites to production servers. You'll also learn how to debug your code when things go wrongand the performance and scalability issues that can affect your web projects as they grow. With you book you can take your first step towards becoming a successful ASP.NET developer with confidence.

Professional C# 5.0 and .NET 4.5.1

Comprehensive, advanced coverage of C# 5.0 and .NET 4.5.1 Whether you're a C# guru or transitioning from C/C++, staying up to date is critical to your success. Professional C# 5.0 and .NET 4.5.1 is your go-to guide for navigating the programming environment for the Windows platform. After a quick refresher of the C# basics, the team of expert authors dives in to C# 5.0 and updates for NET 4.5.1. Includes: Different behaviors for .NET 4.5.1 and the changes to Visual Studio 2013 Changes to ASP.NET Core, Web Forms, MVC, and Web API Updated Windows 8 deployments and localization, event logs, and data flow Shuffling of ADO.NET Entity Framework Additions to Windows Workflow Foundation New Windows Runtime 2.0 updates

A Tour of C++

The C++11 standard allows programmers to express ideas more clearly, simply, and directly, and to write faster, more efficient code. Bjarne Stroustrup, the designer and original implementer of C++, thoroughly covers the details of this language and its use in his definitive reference, The C++ Programming Language, Fourth Edition. In A Tour of C++ , Stroustrup excerpts the overview chapters from that complete reference, expanding and enhancing them to give an experienced programmer–in just a few hours–a clear idea of what constitutes modern C++. In this concise, self-contained guide, Stroustrup covers most major language features and the major standard-library components–not, of course, in great depth, but to a level that gives programmers a meaningful overview of the language, some key examples, and practical help in getting

started. Stroustrup presents the C++ features in the context of the programming styles they support, such as object-oriented and generic programming. His tour is remarkably comprehensive. Coverage begins with the basics, then ranges widely through more advanced topics, including many that are new in C++11, such as move semantics, uniform initialization, lambda expressions, improved containers, random numbers, and concurrency. The tour ends with a discussion of the design and evolution of C++ and the extensions added for C++11. This guide does not aim to teach you how to program (see Stroustrup's Programming: Principles and Practice Using C++ for that); nor will it be the only resource you'll need for C++ mastery (see Stroustrup's The C++ Programming Language, Fourth Edition, for that). If, however, you are a C or C++ programmer wanting greater familiarity with the current C++ language, or a programmer versed in another language wishing to gain an accurate picture of the nature and benefits of modern C++, you can't find a shorter or simpler introduction than this tour provides.

Programming Web Services with SOAP

The web services architecture provides a new way to think about and implement application-to-application integration and interoperability that makes the development platform irrelevant. Two applications, regardless of operating system, programming language, or any other technical implementation detail, communicate using XML messages over open Internet protocols such as HTTP or SMTP. The Simple Open Access Protocol (SOAP) is a specification that details how to encode that information and has become the messaging protocol of choice for Web services. Programming Web Services with SOAP is a detailed guide to using SOAP and other leading web services standards--WSDL (Web Service Description Language), and UDDI (Universal Description, Discovery, and Integration protocol). You'll learn the concepts of the web services architecture and get practical advice on building and deploying web services in the enterprise. This authoritative book decodes the standards, explaining the concepts and implementation in a clear, concise style. You'll also learn about the major toolkits for building and deploying web services. Examples in Java, Perl, C#, and Visual Basic illustrate the principles. Significant applications developed using Java and Perl on the Apache Tomcat web platform address real issues such as security, debugging, and interoperability. Covered topic areas include: The Web Services Architecture SOAP envelopes, headers, and encodings WSDL and UDDI Writing web services with Apache SOAP and Java Writing web services with Perl's SOAP::Lite Peer-to-peer (P2P) web services Enterprise issues such as authentication, security, and identity Up-and-coming standards projects for web services Programming Web Services with SOAP provides you with all the information on the standards, protocols, and toolkits you'll need to integrate information services with SOAP. You'll find a solid core of information that will help you develop individual Web services or discover new ways to integrate core business processes across an enterprise.

The C# Programming Yellow Book

Learn C# from first principles the Rob Miles way. With jokes, puns, and a rigorous problem solving based approach.You can download all the code samples used in the book from here: http: //www.robmiles.com/s/Yellow-Book-Code-Samples-64.z

Cloud Computing

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 market-place 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.

Introducing Microsoft Power BI

https://works.spiderworks.co.in/-48232194/sembodyi/mthankq/lspecifyh/english+sentence+structure+rules+swwatchz.pdf
https://works.spiderworks.co.in/@38811072/vpractised/fedity/estaret/matlab+for+engineers+global+edition.pdf
https://works.spiderworks.co.in/!31729058/aembarky/meditc/vinjuree/four+corners+workbook+4+answer+key.pdf
https://works.spiderworks.co.in/^97263262/bfavourc/epreventj/mslidet/htc+g20+manual.pdf
https://works.spiderworks.co.in/+20905855/kbehaveu/lhatej/bslidey/ht+1000+instruction+manual+by+motorola.pdf
https://works.spiderworks.co.in/_68624968/qpractiseh/ipourd/cspecifyf/33+worlds+best+cocktail+recipes+quick+eas
https://works.spiderworks.co.in/^89332792/karisee/bpoury/qpreparev/vaidyanathan+multirate+solution+manual.pdf
https://works.spiderworks.co.in/!88886178/jpractiseu/rpourf/nresemblet/the+heart+and+the+bottle.pdf
https://works.spiderworks.co.in/+81606800/vpractisea/rpourd/mconstructu/fundamentals+of+credit+and+credit+anal
https://works.spiderworks.co.in/+88042837/iembarks/rassistu/opacka/ib+chemistry+study+guide+geoffrey+neuss.pd