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Objektorientierte Analyse & Design von Kopf bis Fuss Brett D. McLaughlin 2007-05-15 Kluge Bücher über Objektorientierte Analyse & Design gibt es viele. Leider versteht man die meisten erst, wenn man selbst schon Profi-Entwickler ist... Und was machen all die Normalsterblichen, die natürlich davon gehört haben, dass OOA&D dazu beiträgt, kontinuierlich tolle Software zu schreiben, Software, die Chef und Kunden glücklich macht - wenn sie aber nicht wissen, wie sie anfangen sollen? Sie könnten damit beginnen, dieses Buch zu lesen! Denn Objektorientierte Analyse & Design von Kopf bis Fuß zeigt Ihnen Schritt für Schritt, wie Sie richtige OO-Software analysieren, entwerfen und entwickeln. Software, die sich leicht wiederverwenden, warten und erweitern lässt. Software, die keine Kopfschmerzen bereitet. Software, der Sie neue Features spendieren können, ohne die existierende Funktionalität zu gefährden. Sie lernen, Ihre Anwendungen flexibel zu halten, indem Sie OO-Prinzipien wie Kapselung und Delegation anwenden. Sie lernen, die Wiederverwendung Ihrer Software dadurch zu begünstigen, dass Sie das OCP (das Open-Closed-Prinzip) und das SRP (das Single-Responsibility-Prinzip) befolgen. Sie lernen, wie sich verschiedene Entwurfsmuster, Entwicklungsansätze und Prinzipien zu einem echten OOA&D-Projektlebenszyklus ergänzen, UML, Anwendungsfälle und -diagramme zu verwenden, damit auch alle Beteiligten klar miteinander kommunizieren können, und Sie die Software abliefern, die gewünscht wird. Diesem Buch wurden die neuesten Erkenntnisse aus der Lerntheorie und der Kognitionswissenschaft zugrunde gelegt - Sie können davon ausgehen, dass Sie nicht nur schnell vorankommen, sondern dabei auch noch eine Menge Spaß haben!

Coders at Work Peter Seibel 2011

Software Engineering: Effective Teaching and Learning Approaches and Practices Ellis, Heidi J.C. 2008-10-31 Over the past decade, software engineering has developed into a highly respected field. Though computing and software engineering education continues to emerge as a prominent interest area of study, few books specifically focus on software engineering education itself. Software Engineering: Effective Teaching and Learning Approaches and Practices presents the latest developments in software engineering education, drawing contributions from over 20 software engineering educators from around

the globe. Encompassing areas such as student assessment and learning, innovative teaching methods, and educational technology, this much-needed book greatly enhances libraries with its unique research content.

Software Testing Foundations Andreas Spillner 2021-07-28 Fundamental knowledge and basic experience – brought through practical examples Thoroughly revised and updated 5th edition, following upon the success of four previous editions Updated according to the most recent ISTQB® Syllabus for the Certified Tester Foundations Level (2018) Authors are among the founders of the Certified Tester Syllabus Professional testing of software is an essential task that requires a profound knowledge of testing techniques. The International Software Testing Qualifications Board (ISTQB®) has developed a universally accepted, international qualification scheme aimed at software and system testing professionals, and has created the Syllabi and Tests for the Certified Tester. Today about 673,000 people have taken the ISTQB® certification exams. The authors of Software Testing Foundations, 5th Edition, are among the creators of the Certified Tester Syllabus and are currently active in the ISTQB®. This thoroughly revised and updated fifth edition covers the Foundation Level (entry level) and teaches the most important methods of software testing. It is designed for self-study and provides the information necessary to pass the Certified Tester-Foundations Level exam, version 2018, as defined by the ISTQB®. Topics covered: - Fundamentals of Testing - Testing and the Software Lifecycle - Static and Dynamic Testing Techniques - Test Management - Test Tools

The Art of Unit Testing Roy Osherove 2015-02-15 Lesbare, wartbare und zuverlässige Tests entwickelnStubs, Mock-Objekte und automatisierte FrameworksEinsatz von .NET-Tools inkl. NUnit, Rhino Mocks und Typemock Isolator Unit Testing, richtig durchgeführt, kann den Unterschied ausmachen zwischen einem fehlgeschlagenen Projekt und einem erfolgreichen, zwischen einer wartbaren Code-Basis und einer, die niemand freiwillig anpackt, zwischen dem Nach-Hause-Kommen um 2 Uhr nachts oder zum Abendessen, selbst noch kurz vor dem Release-Termin. Roy Osherove führt Sie Schritt für Schritt von einfachen Tests zu Tests, die wartbar, lesbar und zuverlässig sind. Er geht danach auf die Grundlagen des Interaction Testings ein und stellt schließlich bewährte Vorgehensweisen für das Schreiben, das Verwalten und das Warten der Unit Tests in echten Projekten vor. Darüber hinaus werden auch fortgeschrittene Themen behandelt wie Mocks, Stubs und Frameworks wie etwa Typemock Isolator und Rhino Mocks. Sie werden eine Menge zu fortgeschrittenen Testmustern und zur Testorganisation, zum Arbeiten mit Legacy Code und auch zu untestbarem Code erfahren. Und Sie lernen Werkzeuge kennen, die Sie beim Testen von Datenbanken und anderen Technologien brauchen werden. Alle Beispiele sind mit Visual Studio in C# geschrieben, so dass die Beispiele insbesondere für .NET-Entwickler nützlich sind. Aber auch für Programmierer anderer Sprachen wird das Buch von großem Nutzen sein, da die Prinzipien des Unit Testings für andere Sprachen dieselben sind. Roys Blog finden Sie auf ISerializable.com. Aus dem Inhalt: Verwenden eines Test-Frameworks (NUnit)Grundlegende TestattributeStubs zum Auflösen von AbhängigkeitenInteraction Testing mit Mock-ObjektenTesthierarchie und OrganisationDie Säulen guter TestsIntegration von Unit Testing in das UnternehmenUmgang mit Legacy Code

What Every Engineer Should Know about Software Engineering Philip A.

Laplante 2007-04-25 Do you... Use a computer to perform analysis or simulations in your daily work? Write short scripts or record macros to perform repetitive tasks? Need to integrate off-the-shelf software into your systems or require multiple applications to work together? Find yourself spending too much time working the kinks out of your code? Work with software engineers on a regular basis but have difficulty communicating or collaborating? If any of these sound familiar, then you may need a quick primer in the principles of software engineering. Nearly every engineer, regardless of field, will need to develop some form of software during their career. Without exposure to the challenges, processes, and limitations of software engineering, developing software can be a burdensome and inefficient chore. In What Every Engineer Should Know about Software Engineering, Phillip Laplante introduces the profession of software engineering along with a practical approach to understanding, designing, and building sound software based on solid principles. Using a unique question-and-answer format, this book addresses the issues and misperceptions that engineers need to understand in order to successfully work with software engineers, develop specifications for quality software, and learn the basics of the most common programming languages, development approaches, and paradigms.

Skills of a Successful Software Engineer Fernando Doglio 2022-08-16 Skills to grow from a solo coder into a productive member of a software development team, with seasoned advice on everything from refactoring to acing an interview. In Skills of a Successful Software Engineer you will learn: The skills you need to succeed on a software development team Best practices for writing maintainable code Testing and commenting code for others to read and use Refactoring code you didn't write What to expect from a technical interview process How to be a tech leader Getting around gatekeeping in the tech community Skills of a Successful Software Engineer is a best practices guide for succeeding on a software development team. The book reveals how to optimize both your code and your career, from achieving a good work-life balance to writing the kind of bug-free code delivered by pros. You'll master essential skills that you might not have learned as a solo coder, including meaningful code commenting, unit testing, and using refactoring to speed up feature delivery. Timeless advice on acing interviews and setting yourself up for leadership will help you throughout your career. Crack open this one-of-a-kind guide, and you'll soon be working in the professional manner that software managers expect. About the technology Success as a software engineer requires technical knowledge, flexibility, and a lot of persistence. Knowing how to work effectively with other developers can be the difference between a fulfilling career and getting stuck in a life-sucking rut. This brilliant book guides you through the essential skills you need to survive and thrive on a software engineering team. About the book Skills of a Successful Software Engineer presents techniques for working on software projects collaboratively. In it, you'll build technical skills, such as writing simple code, effective testing, and refactoring, that are essential to creating software on a team. You'll also explore soft skills like how to keep your knowledge up to date, interacting with your team leader, and even how to get a job you'll love. What's inside Best practices for writing and documenting maintainable code Testing and refactoring code you didn't write What to expect in a technical interview How to thrive on a development team About the reader For working and aspiring software engineers. About the author

Fernando Doglio has twenty years of experience in the software industry, where he has worked on everything from web development to big data. Table of Contents 1 Becoming a successful software engineer 2 Writing code everyone can read 3 Unit testing: delivering code that works 4 Refactoring existing code (or Refactoring doesn't mean rewriting code) 5 Tackling the personal side of coding 6 Interviewing for your place on the team 7 Working as part of a team 8 Understanding team leadership

The Best Python Programming Step-By-Step Beginners Guide Chris Williamson 2019-05-03 Discover why you will be able to understand Python programming language in less than 6 hours if you can read an English sentence... If you see a code called "print", what do you think is going to happen?a. This line will be copied b. This line will be printedc. This line will be deletedIf you have the level of a primary school kid, you´ll most likely answer "b)" and you are right. Python is known as the easiest programming language in the world.Even if it is so easy that kids can learn the basics, you are able to develop big and complex projects.Google Search and YouTube are just some examples of big products powered by Python. Statistics revealed that 6 out of 10 parents preferred their children to learn Python instead of French. There is a high demand for people to know programming language.Instead of being a language designed for computer nerds, you can use Python in everyday life to design cool automations and build applications like Dropbox and Instagram.Imagine all your ideas can easily be turned into a real product without investing thousands of dollars into web designers or engineers. Just think about all the entrepreneurs and young start ups with big visions, but no programming skills. Even if you don´t have a creative idea yourself, you can easily turn your Python knowledge into $100 notes. In "The Best Python Step-By-Step Beginners Guide", you´ll discover: -Why Python is not as scary as its animal relative and much easier to handle-How Python is the official language of the world's biggest companies-How to control your own R2-D2 Star Wars robot-How to become a visionary and change the world by turning your ideas in applications that allow you to get worldwide exposure-How watching "Game of Thrones" on Netflix or looking up the Backstreet Boys on Spotify are connected to python-Why robots are more likely to chess mate you than the world chess champion Magnus Carlsen-How Python prevents you from ever making mistakes in your programming again-How to solve problems in less timeAnd much, much more...Even if you have never used any programming language before, you´ll be able to understand and apply Python and turn the virtual world upside down.Discover all the crazy opportunities you have once you know how to talk the most essential programming language in the world.Scroll up, click "add to cart" and enjoy clear programming on both small and big scales.

Refactoring Martin Fowler 2020-03-20 • Umfassend überarbeitete und aktualisierte Neuauflage des Standardwerks in vollständig neuer Übersetzung • Verbesserungsmöglichkeiten von bestehender Software anhand von Code-Smells erkennen und Code effizient überarbeiten • Umfassender Katalog von Refactoring-Methoden mit Code-Beispielen in JavaScript Seit mehr als zwanzig Jahren greifen erfahrene Programmierer rund um den Globus auf dieses Buch zurück, um bestehenden Code zu verbessern und leichter lesbar zu machen sowie Software besser warten und erweitern zu können. In diesem umfassenden Standardwerk zeigt Ihnen Martin Fowler, was die Vorteile von Refactoring sind, wie Sie verbesserungsbedürftigen Code erkennen und wie Sie ein Refactoring –

unabhängig von der verwendeten Programmiersprache – erfolgreich durchführen. In einem umfangreichen Katalog gibt Fowler Ihnen verschiedene Refactoring-Methoden mit ausführlicher Erläuterung, Motivation, Vorgehensweise und einfachen Beispielen in JavaScript an die Hand. Darüber hinaus behandelt er insbesondere folgende Schwerpunkte: • Allgemeine Prinzipien und Durchführung des Refactorings • Refactoring anwenden, um die Lesbarkeit, Wartbarkeit und Erweiterbarkeit von Programmen zu verbessern • Code-Smells erkennen, die auf Verbesserungsmöglichkeiten durch Refactoring hinweisen • Entwicklung zuverlässiger Tests für das Refactoring • Erkennen von Fallstricken und notwendigen Kompromissen bei der Durchführung eines Refactorings Diese vollständig neu übersetzte Ausgabe wurde von Grund auf überarbeitet, um den maßgeblichen Veränderungen der modernen Programmierung Rechnung zu tragen. Sie enthält einen aktualisierten Katalog von Refactoring-Methoden sowie neue Beispiele für einen funktionalen Programmieransatz.

Produktiv programmieren Neal Ford 2009

Softwareentwicklung von Kopf bis Fuss Dan Pilone 2008-07-15 Was lernen Sie mit diesem Buch? Haben Sie sich schon einmal gefragt, was es mit testgetriebener Entwicklung auf sich hat? Oder auf welcher Basis es die richtig guten Consultants schaffen, gewaltige Stundensätze zu kassieren? Vielleicht sind Sie auch gerade an dem Punkt, an dem Sie Ihre Builds automatisieren wollen, Ihren Code in eine Versionskontrolle füttern, einem Refactoring unterziehen oder mit ein paar Entwurfsmustern anreichern wollen. Egal: Wenn Sie mit diesem Buch fertig sind, werden Sie ganz selbstverständlich Ihre Burndown-Rate verfolgen, den Durchsatz Ihres Teams berücksichtigen und sich erfolgreich Ihren Weg durch Anforderungen, Entwurf, Entwicklung und Auslieferung iterieren. Wieso sieht dieses Buch so anders aus? Wir gehen davon aus, dass Ihre Zeit zu kostbar ist, um mit neuem Stoff zu kämpfen. Statt Sie mit Bleiwüstentexten langsam in den Schlaf zu wiegen, verwenden wir für Softwareentwicklung von Kopf bis Fuß ein visuell und inhaltlich abwechslungsreiches Format, das auf Grundlage neuster Forschungsergebnisse im Bereich der Kognitionswissenschaft und der Lerntheorie entwickelt wurde. Wir wissen nämlich, wie Ihr Gehirn arbeitet.

Die Kunst des IT-Projektmanagements Scott Berkun 2009 Weshalb verschieben sich Release-Termine standig? Warum funktioniert die Team-Kommunikation zwischen Designern, Entwicklern und Marketing nicht? Wie kommt man auf wirklich kreative Ideen? Und was tun, wenn etwas schief geht? Wenn Sie sich Fragen wie diese schon oft gestellt haben - Scott Berkun hat die Antworten fur Sie. Mit Humor und scharfem Blick beleuchtet der erfahrene Autor und Projektmanager die klassischen Aufgaben, Herausforderungen und Mechanismen des IT-Projektmanagements. Von der fachkundigen Planung uber die zielgerichtete Team-Kommunikation bis hin zum erfolgreichen Projektabschluss - hier erhalten Sie kompetente Einblicke in die Realitat der Projektleitung. Projekte realistisch planen Entdecken Sie, welche ersten Schritte das Projekt erfolgreich starten, wie man solide Zeitplane entwickelt und gute Visionsdokumente und Spezifikationen schreibt, wie neue Ideen entstehen und was man aus ihnen machen kann. Teams effektiv fuhren Erhalten Sie Einblicke in die erfolgreiche Teamleitung: Lernen Sie, wie man die Team-Moral kultiviert, konfliktfrei kommuniziert, Meetings optimal gestaltet und den Spa am Projekt steigert. Neu in der uberarbeiteten Auflage Die zweite, komplett uberarbeitete

Auflage wurde um Ubungsteile am Ende jeden Kapitels erweitert. Dadurch kann der Leser durch uber 120 Ubungen die Kapitelinhalte praxisnah erschlieen und vertiefen.

Vom Mythos des Mann-Monats Frederick P. Brooks 2019-05-08 Nur wenige Bücher über das Projektmanagement bei Software haben sich als so einflussreich und zeitlos gültig erwiesen wie "Vom Mythos des Mann-Monats": Fred Brooks bietet hier mit einem Mix aus harten Fakten und provokanten Ideen jedem tiefe Einsichten, der komplexe Projekte zu managen hat. Die Essays in diesem Buch stellen die Quintessenz seiner Erfahrungen als Projektmanager erst für die Hardware der IBM/360-Computerfamilie, dann als Leiter der Entwicklung des - wahrhaft gigantischen - Betriebssystems OS/360 dar. Die Besonderheit dieses Buches liegt aber auch darin, dass Brooks, 20 Jahre nach Erscheinen des Originals, seine ursprünglichen Vorstellungen und Visionen noch einmal überdacht und sie um neue Erkenntnisse und Ratschläge bereichert hat. Dieses Buch ist ein Muss sowohl für Kenner seiner Arbeiten als auch Leser, die Brooks nun zum ersten Mal entdecken.

Entwurfsmuster Erich Gamma 2004

Software Engineering at Google Titus Winters 2020-03 The approach to and understanding of software engineering at Google is unlike any other company. With this book, you'll get a candid and insightful look at how software is constructed and maintained by some of the world's leading practitioners. Titus Winters, Tom Manshreck, and Hyrum K. Wright, software engineers and a technical writer at Google, reframe how software engineering is practiced and taught: from an emphasis on programming to an emphasis on software engineering, which roughly translates to programming over time. You'll learn: Fundamental differences between software engineering and programming How an organization effectively manages a living codebase and efficiently responds to inevitable change Why culture (and recognizing it) is important, and how processes, practices, and tools come into play.

Foundations of Software Engineering Ashfaque Ahmed 2016-08-25 The best way to learn software engineering is by understanding its core and peripheral areas. Foundations of Software Engineering provides in-depth coverage of the areas of software engineering that are essential for becoming proficient in the field. The book devotes a complete chapter to each of the core areas. Several peripheral areas are also explained by assigning a separate chapter to each of them. Rather than using UML or other formal notations, the content in this book is explained in easy-to-understand language. Basic programming knowledge using an object-oriented language is helpful to understand the material in this book. The knowledge gained from this book can be readily used in other relevant courses or in real-world software development environments. This textbook educates students in software engineering principles. It covers almost all facets of software engineering, including requirement engineering, system specifications, system modeling, system architecture, system implementation, and system testing. Emphasizing practical issues, such as feasibility studies, this book explains how to add and develop software requirements to evolve software systems. This book was written after receiving feedback from several professors and software engineers. What resulted is a textbook on software engineering that not only covers the theory of software engineering but also presents real-world insights to aid students in proper implementation. Students learn key concepts through carefully explained and illustrated theories, as well

as concrete examples and a complete case study using Java. Source code is also available on the book's website. The examples and case studies increase in complexity as the book progresses to help students build a practical understanding of the required theories and applications.

Modern Programming: Object Oriented Programming and Best Practices Graham Lee 2019-06-28 Discover the untapped features of object-oriented programming and use it with other software tools to code fast, efficient applications. Key FeaturesExplore the complexities of object-oriented programming (OOP)Discover what OOP can do for youLearn to use the key tools and software engineering practices to support your own programming needsBook Description Your experience and knowledge always influence the approach you take and the tools you use to write your programs. With a sound understanding of how to approach your goal and what software paradigms to use, you can create high-performing applications quickly and efficiently. In this two-part book, you'll discover the untapped features of object-oriented programming and use it with other software tools to code fast and efficient applications. The first part of the book begins with a discussion on how OOP is used today and moves on to analyze the ideas and problems that OOP doesn't address. It continues by deconstructing the complexity of OOP, showing you its fundamentally simple core. You'll see that, by using the distinctive elements of OOP, you can learn to build your applications more easily. The next part of this book talks about acquiring the skills to become a better programmer. You'll get an overview of how various tools, such as version control and build management, help make your life easier. This book also discusses the pros and cons of other programming paradigms, such as aspect-oriented programming and functional programming, and helps to select the correct approach for your projects. It ends by talking about the philosophy behind designing software and what it means to be a "good" developer. By the end of this two-part book, you will have learned that OOP is not always complex, and you will know how you can evolve into a better programmer by learning about ethics, teamwork, and documentation. What you will learnUntangle the complexity of object-oriented programming by breaking it down to its essential building blocksRealize the full potential of OOP to design efficient, maintainable programsUtilize coding best practices, including TDD, pair programming and code reviews, to improve your workUse tools, such as source control and IDEs, to work more efficientlyLearn how to most productively work with other developersBuild your own software development philosophyWho this book is for This book is ideal for programmers who want to understand the philosophy behind creating software and what it means to be "good" at designing software. Programmers who want to deconstruct the OOP paradigm and see how it can be reconstructed in a clear, straightforward way will also find this book useful. To understand the ideas expressed in this book, you must be an experienced programmer who wants to evolve their practice.

Software Engineering for Absolute Beginners Nico Loubser 2021-01-31 Start programming from scratch, no experience required. This beginners' guide to software engineering starts with a discussion of the different editors used to create software and covers setting up a Docker environment. Next, you will learn about repositories and version control along with its uses. Now that you are ready to program, you'll go through the basics of Python, the ideal language to learn as a novice software engineer. Many modern applications need to talk

to a database of some kind, so you will explore how to create and connect to a database and how to design one for your app. Additionally you will discover how to use Python's Flask microframework and how to efficiently test your code. Finally, the book explains best practices in coding, design, deployment, and security. Software Engineering for Absolute Beginners answers the question of what topics you should know when you start out to learn software engineering. This book covers a lot of topics, and aims to clarify the hidden, but very important, portions of the software development toolkit. After reading this book, you, a complete beginner, will be able to identify best practices and efficient approaches to software development. You will be able to go into a work environment and recognize the technology and approaches used, and set up a professional environment to create your own software applications. What You Will Learn Explore the concepts that you will encounter in the majority of companies doing software development Create readable code that is neat as well as well-designed Build code that is source controlled, containerized, and deployable Secure your codebase Optimize your workspace Who This Book Is For A reader with a keen interest in creating software. It is also helpful for students.

Core C Victor Shtern 2000 Master C++ the right way: From the software engineering perspective! Master C++ the right way! Object-oriented approach to coding throughout Harness C++'s strengths; avoid its dangers Build more easily maintainable code Build more powerful, robust, maintainable C++ software! For developers with experience in any language, Victor Shtern's Core C++ teaches C++ the right way: by applying the best software engineering practices and methodologies to programming in C++. Even if you've already worked with C++, this comprehensive book will show you how to build code that is more robust, far easier to maintain and modify, and far more valuable. Shtern's book teaches object-oriented principles before teaching the language, helping you derive all the power of object-oriented development to build superior software. Learn how to make design decisions based on key criteria such as information hiding and pushing responsibilities from clients down to server classes. Then, master every key feature of ANSI/ISO C++ from a software engineer's perspective: classes, methods, const modifiers, dynamic memory management, class composition, inheritance, polymorphism, I/O, and much more. If you want to build outstanding C++ software, coding skill isn't enough. Objects aren't enough. You must design, think, and program using today's best software engineering practices -- and with Core C++, you will. So, Core C++ delivers: The application of software engineering principles to C++ programming A strong emphasis on writing code for easier future maintainance and modification A practical understanding of object-oriented principles before teaching the language Insight into the latest ANSI/ISO C++ features Thorough explanations that respect your intelligence Hundreds of realistic, to-the-point code examples Levity Breaks: Stories and vignettes that illustrate key topics, concepts, and ideas through humor Every core series book: Demonstrates practical techniques used by professional developers. Features robust, thoroughly tested sample code and realistic examples. Focuses on the cutting-edge technologies you need to master today. Provides expert advice that will help you build superior software.

Patterns für Enterprise-Application-Architekturen Martin Fowler 2003

Skill Up: A Software Developer's Guide to Life and Career Jordan Hudgens 2017-07-31 This unique book provides you with a wealth of tips, tricks, best

practices, and answers to the day-to-day questions that programmers face in their careers. It is split into three parts: Coder Skills, Freelancer Skills, and Career Skills, providing the knowledge you need to get ahead in programming. About This Book Over 50 essays with practical advice on improving your programming career Practical focus gives solutions to common problems, and methods to become a better coder Includes advice for existing programmers and those wanting to begin a career in programming Who This Book Is For This book is useful for programmers of any ability or discipline. It has advice for those thinking about beginning a career in programming, those already working as a fully employed programmer, and for those working as freelance developers. What You Will Learn Improve your soft skills to become a better and happier coder Learn to be a better developer Grow your freelance development business Improve your development career Learn the best approaches to breaking down complex topics Have the confidence to charge what you're worth as a freelancer Succeed in developer job interviews In Detail This is an all-purpose toolkit for your programming career. It has been built by Jordan Hudgens over a lifetime of coding and teaching coding. It helps you identify the key questions and stumbling blocks that programmers encounter, and gives you the answers to them! It is a comprehensive guide containing more than 50 insights that you can use to improve your work, and to give advice in your career. The book is split up into three topic areas: Coder Skills, Freelancer Skills, and Career Skills, each containing a wealth of practical advice. Coder Skills contains advice for people starting out, or those who are already working in a programming role but want to improve their skills. It includes such subjects as: how to study and understand complex topics, and getting past skill plateaus when learning new languages. Freelancer Skills contains advice for developers working as freelancers or with freelancers. It includes such subjects as: knowing when to fire a client, and tips for taking over legacy applications. Career Skills contains advice for building a successful career as a developer. It includes such subjects as: how to improve your programming techniques, and interview guides and developer salary negotiation strategies. Style and approach This unique book provides over 50 insightful essays full of practical advice for improving your programming career. The book is split into three broad sections covering different aspects of a developer's career. Each essay is self-contained and can be read individually, or in chunks.

Das DevOps-Handbuch Gene Kim 2017-08-09 Mehr denn je ist das effektive Management der IT entscheidend für die Wettbewerbsfähigkeit von Organisationen. Viele Manager in softwarebasierten Unternehmen ringen damit, eine Balance zwischen Agilität, Zuverlässigkeit und Sicherheit ihrer Systeme herzustellen. Auf der anderen Seite schaffen es High-Performer wie Google, Amazon, Facebook oder Netflix, routinemäßig und zuverlässig hundertoder gar tausendmal pro Tag Code auszuliefern. Diese Unternehmen verbindet eins: Sie arbeiten nach DevOps-Prinzipien. Die Autoren dieses Handbuchs folgen den Spuren des Romans Projekt Phoenix und zeigen, wie die DevOps-Philosophie praktisch implementiert wird und Unternehmen dadurch umgestaltet werden können. Sie beschreiben konkrete Tools und Techniken, die Ihnen helfen, Software schneller und sicherer zu produzieren. Zudem stellen sie Ihnen Maßnahmen vor, die die Zusammenarbeit aller Abteilungen optimieren, die Arbeitskultur verbessern und die Profitabilität Ihres Unternehmens steigern können. Themen des Buchs sind: Die Drei Wege: Die obersten Prinzipien, von

denen alle DevOps-Maßnahmen abgeleitet werden. Einen Ausgangspunkt finden: Eine Strategie für die DevOps-Transformation entwickeln, Wertketten und Veränderungsmuster kennenlernen, Teams schützen und fördern. Flow beschleunigen: Den schnellen Fluss der Arbeit von Dev hin zu Ops ermöglichen durch eine optimale Deployment-Pipeline, automatisierte Tests, Continuous Integration und Continuous Delivery. Feedback verstärken: Feedback-Schleifen verkürzen und vertiefen, Telemetriedaten erzeugen und Informationen unternehmensweit sichtbar machen. Kontinuierliches Lernen ermöglichen: Eine Just Culture aufbauen und ausreichend Zeit reservieren, um das firmenweite Lernen zu fördern.

Code Complete - Deutsche Ausgabe Steve McConnell 2005-01 Dieses Buch ist die deutsche Ubersetzung eines Klassikers der Programmierliteratur von Steve McConnell. Seine mit vielen Preisen ausgezeichneten Bucher helfen Programmierern seit Jahren, besseren und effizienteren Code zu schreiben. Das Geheimnis dieses Buches liegt in der Art, wie der Autor das vorhandene Wissen uber Programmiertechniken aus wissenschaftlichen Quellen mit den Erfahrungen aus der taglichen praktischen Arbeit am Code zusammenfuhrt und daraus die wesentlichen Grundvoraussetzungen der Softwareentwicklung und die effektivsten Arbeitstechniken ableitet. Verstandliche Beispiele und klare Anleitungen vermitteln dem Leser dieses Wissen auf unkomplizierte Weise. Dieses Buch informiert und stimuliert, ganz gleich, wie viel sie bereits uber Programmierung wissen, welche Entwicklungsumgebung und Sprache sie bevorzugen und welche Arten von Anwendungen sie normalerweise programmieren.

What Every Engineer Should Know about Software Engineering Phillip A. Laplante 2022-11-03 This book offers a practical approach to understanding, designing, and building sound software based on solid principles. Using a unique Q&A format, this book addresses the issues that engineers need to understand in order to successfully work with software engineers, develop specifications for quality software, and learn the basics of the most common programming languages, development approaches, and paradigms. The new edition is thoroughly updated to improve the pedagogical flow and emphasize new software engineering processes, practices, and tools that have emerged in every software engineering area. Features: Defines concepts and processes of software and software development, such as agile processes, requirements engineering, and software architecture, design, and construction. Uncovers and answers various misconceptions about the software development process and presents an up-to-date reflection on the state of practice in the industry. Details how non-software engineers can better communicate their needs to software engineers and more effectively participate in design and testing to ultimately lower software development and maintenance costs. Helps answer the question: How can I better leverage embedded software in my design? Adds new chapters and sections on software architecture, software engineering and systems, and software engineering and disruptive technologies, as well as information on cybersecurity. Features new appendices that describe a sample automation system, covering software requirements, architecture, and design. This book is aimed at a wide range of engineers across many disciplines who work with software.

Clean Coder Robert C. Martin 2014-03-24 Verhaltensregeln für professionelle Programmierer Erfolgreiche Programmierer haben eines gemeinsam: Die Praxis

der Software-Entwicklung ist ihnen eine Herzensangelegenheit. Auch wenn sie unter einem nicht nachlassenden Druck arbeiten, setzen sie sich engagiert ein. Software-Entwicklung ist für sie eine Handwerkskunst. In Clean Coder stellt der legendäre Software-Experte Robert C. Martin die Disziplinen, Techniken, Tools und Methoden vor, die Programmierer zu Profis machen. Dieses Buch steckt voller praktischer Ratschläge und behandelt alle wichtigen Themen vom professionellen Verhalten und Zeitmanagement über die Aufwandsschätzung bis zum Refactoring und Testen. Hier geht es um mehr als nur um Technik: Es geht um die innere Haltung. Martin zeigt, wie Sie sich als Software-Entwickler professionell verhalten, gut und sauber arbeiten und verlässlich kommunizieren und planen. Er beschreibt, wie Sie sich schwierigen Entscheidungen stellen und zeigt, dass das eigene Wissen zu verantwortungsvollem Handeln verpflichtet. In diesem Buch lernen Sie: Was es bedeutet, sich als echter Profi zu verhalten Wie Sie mit Konflikten, knappen Zeitplänen und unvernünftigen Managern umgehen Wie Sie beim Programmieren im Fluss bleiben und Schreibblockaden überwinden Wie Sie mit unerbittlichem Druck umgehen und Burnout vermeiden Wie Sie Ihr Zeitmanagement optimieren Wie Sie für Umgebungen sorgen, in denen Programmierer und Teams wachsen und sich wohlfühlen Wann Sie Nein sagen sollten – und wie Sie das anstellen Wann Sie Ja sagen sollten – und was ein Ja wirklich bedeutet Großartige Software ist etwas Bewundernswertes: Sie ist leistungsfähig, elegant, funktional und erfreut bei der Arbeit sowohl den Entwickler als auch den Anwender. Hervorragende Software wird nicht von Maschinen geschrieben, sondern von Profis, die sich dieser Handwerkskunst unerschütterlich verschrieben haben. Clean Coder hilft Ihnen, zu diesem Kreis zu gehören. Über den Autor: Robert C. Uncle Bob Martin ist seit 1970 Programmierer und bei Konferenzen in aller Welt ein begehrter Redner. Zu seinen Büchern gehören Clean Code – Refactoring, Patterns, Testen und Techniken für sauberen Code und Agile Software Development: Principles, Patterns, and Practices. Als überaus produktiver Autor hat Uncle Bob Hunderte von Artikeln, Abhandlungen und Blogbeiträgen verfasst. Er war Chefredakteur bei The C++ Report und der erste Vorsitzende der Agile Alliance. Martin gründete und leitet die Firma Object Mentor, Inc., die sich darauf spezialisiert hat, Unternehmen bei der Vollendung ihrer Projekte behilflich zu sein.

Entwurfsmuster von Kopf bis Fuß Eric Freemann 2015-03

Building Great Software Engineering Teams Joshua Tyler 2015-07-03 WINNER of Computing Reviews 20th Annual Best Review in the category Management "Tyler's book is concise, reasonable, and full of interesting practices, including some curious ones you might consider adopting yourself if you become a software engineering manager." —Fernando Berzal, CR, 10/23/2015 "Josh Tyler crafts a concise, no-nonsense, intensely focused guide for building the workhouse of Silicon Valley—the high-functioning software team." —Gordon Rios, Summer Book Recommendations from the Smartest People We Know—Summer 2016 Building Great Software Engineering Teams provides engineering leaders, startup founders, and CTOs concrete, industry-proven guidance and techniques for recruiting, hiring, and managing software engineers in a fast-paced, competitive environment. With so much at stake, the challenge of scaling up a team can be intimidating. Engineering leaders in growing companies of all sizes need to know how to find great candidates, create effective interviewing and hiring processes, bring out the best in people and their work, provide meaningful career development, learn to spot warning

signs in their team, and manage their people for long-term success. Author Josh Tyler has spent nearly a decade building teams in high-growth startups, experimenting with every aspect of the task to see what works best. He draws on this experience to outline specific, detailed solutions augmented by instructive stories from his own experience. In this book you'll learn how to build your team, starting with your first hire and continuing through the stages of development as you manage your team for growth and success. Organized to cover each step of the process in the order you'll likely face them, and highlighted by stories of success and failure, it provides an easy-to-understand recipe for creating your high-powered engineering team.

Hands-On Software Engineering with Golang *Achilleas Anagnostopoulos 2020-01-24 Explore software engineering methodologies, techniques, and best practices in Go programming to build easy-to-maintain software that can effortlessly scale on demand Key Features Apply best practices to produce lean, testable, and maintainable Go code to avoid accumulating technical debt Explore Go's built-in support for concurrency and message passing to build high-performance applications Scale your Go programs across machines and manage their life cycle using Kubernetes Book Description Over the last few years, Go has become one of the favorite languages for building scalable and distributed systems. Its opinionated design and built-in concurrency features make it easy for engineers to author code that efficiently utilizes all available CPU cores. This Golang book distills industry best practices for writing lean Go code that is easy to test and maintain, and helps you to explore its practical implementation by creating a multi-tier application called Links 'R' Us from scratch. You'll be guided through all the steps involved in designing, implementing, testing, deploying, and scaling an application. Starting with a monolithic architecture, you'll iteratively transform the project into a service-oriented architecture (SOA) that supports the efficient out-of-core processing of large link graphs. You'll learn about various cutting-edge and advanced software engineering techniques such as building extensible data processing pipelines, designing APIs using gRPC, and running distributed graph processing algorithms at scale. Finally, you'll learn how to compile and package your Go services using Docker and automate their deployment to a Kubernetes cluster. By the end of this book, you'll know how to think like a professional software developer or engineer and write lean and efficient Go code. What you will learn Understand different stages of the software development life cycle and the role of a software engineer Create APIs using gRPC and leverage the middleware offered by the gRPC ecosystem Discover various approaches to managing package dependencies for your projects Build an end-to-end project from scratch and explore different strategies for scaling it Develop a graph processing system and extend it to run in a distributed manner Deploy Go services on Kubernetes and monitor their health using Prometheus Who this book is for This Golang programming book is for developers and software engineers looking to use Go to design and build scalable distributed systems effectively. Knowledge of Go programming and basic networking principles is required.*

Software Development *Marc Hamilton 1999 Software Development is the most thorough, realistic guide to "what works" in software development - and how to make it happen in your organization. Leading consultant Marc Hamilton tackles all three key elements of successful development: people, processes, and technology. From streamlining infrastructures to retraining programmers,*

choosing tools to implementing service level agreements, Hamilton unifies all of today's best practices - in management, architecture, and software engineering.

Clean Code - Refactoring, Patterns, Testen und Techniken für sauberen Code Robert C. Martin 2013-12-18 h2> Kommentare, Formatierung, Strukturierung Fehler-Handling und Unit-Tests Zahlreiche Fallstudien, Best Practices, Heuristiken und Code Smells Clean Code - Refactoring, Patterns, Testen und Techniken für sauberen Code Aus dem Inhalt: Lernen Sie, guten Code von schlechtem zu unterscheiden Sauberen Code schreiben und schlechten Code in guten umwandeln Aussagekräftige Namen sowie gute Funktionen, Objekte und Klassen erstellen Code so formatieren, strukturieren und kommentieren, dass er bestmöglich lesbar ist Ein vollständiges Fehler-Handling implementieren, ohne die Logik des Codes zu verschleiern Unit-Tests schreiben und Ihren Code testgesteuert entwickeln Selbst schlechter Code kann funktionieren. Aber wenn der Code nicht sauber ist, kann er ein Entwicklungsunternehmen in die Knie zwingen. Jedes Jahr gehen unzählige Stunden und beträchtliche Ressourcen verloren, weil Code schlecht geschrieben ist. Aber das muss nicht sein. Mit Clean Code präsentiert Ihnen der bekannte Software-Experte Robert C. Martin ein revolutionäres Paradigma, mit dem er Ihnen aufzeigt, wie Sie guten Code schreiben und schlechten Code überarbeiten. Zusammen mit seinen Kollegen von Object Mentor destilliert er die besten Praktiken der agilen Entwicklung von sauberem Code zu einem einzigartigen Buch. So können Sie sich die Erfahrungswerte der Meister der Software-Entwicklung aneignen, die aus Ihnen einen besseren Programmierer machen werden – anhand konkreter Fallstudien, die im Buch detailliert durchgearbeitet werden. Sie werden in diesem Buch sehr viel Code lesen. Und Sie werden aufgefordert, darüber nachzudenken, was an diesem Code richtig und falsch ist. Noch wichtiger: Sie werden herausgefordert, Ihre professionellen Werte und Ihre Einstellung zu Ihrem Beruf zu überprüfen. Clean Code besteht aus drei Teilen:Der erste Teil beschreibt die Prinzipien, Patterns und Techniken, die zum Schreiben von sauberem Code benötigt werden. Der zweite Teil besteht aus mehreren, zunehmend komplexeren Fallstudien. An jeder Fallstudie wird aufgezeigt, wie Code gesäubert wird – wie eine mit Problemen behaftete Code-Basis in eine solide und effiziente Form umgewandelt wird. Der dritte Teil enthält den Ertrag und den Lohn der praktischen Arbeit: ein umfangreiches Kapitel mit Best Practices, Heuristiken und Code Smells, die bei der Erstellung der Fallstudien zusammengetragen wurden. Das Ergebnis ist eine Wissensbasis, die beschreibt, wie wir denken, wenn wir Code schreiben, lesen und säubern. Dieses Buch ist ein Muss für alle Entwickler, Software-Ingenieure, Projektmanager, Team-Leiter oder Systemanalytiker, die daran interessiert sind, besseren Code zu produzieren. Über den Autor: Robert C. »Uncle Bob« Martin entwickelt seit 1970 professionell Software. Seit 1990 arbeitet er international als Software-Berater. Er ist Gründer und Vorsitzender von Object Mentor, Inc., einem Team erfahrener Berater, die Kunden auf der ganzen Welt bei der Programmierung in und mit C++, Java, C#, Ruby, OO, Design Patterns, UML sowie Agilen Methoden und eXtreme Programming helfen.

Software Engineering Richard F Schmidt 2013-04-30 Software Engineering: Architecture-driven Software Development is the first comprehensive guide to the underlying skills embodied in the IEEE's Software Engineering Body of Knowledge (SWEBOK) standard. Standards expert Richard Schmidt explains the traditional software engineering practices recognized for developing projects

for government or corporate systems. Software engineering education often lacks standardization, with many institutions focusing on implementation rather than design as it impacts product architecture. Many graduates join the workforce with incomplete skills, leading to software projects that either fail outright or run woefully over budget and behind schedule. Additionally, software engineers need to understand system engineering and architecture—the hardware and peripherals their programs will run on. This issue will only grow in importance as more programs leverage parallel computing, requiring an understanding of the parallel capabilities of processors and hardware. This book gives both software developers and system engineers key insights into how their skillsets support and complement each other. With a focus on these key knowledge areas, Software Engineering offers a set of best practices that can be applied to any industry or domain involved in developing software products. A thorough, integrated compilation on the engineering of software products, addressing the majority of the standard knowledge areas and topics Offers best practices focused on those key skills common to many industries and domains that develop software Learn how software engineering relates to systems engineering for better communication with other engineering professionals within a project environment

Effektives Arbeiten mit Legacy Code Michael C. Feathers 2020-11-04 Können Sie Ihren Code leicht ändern? Können Sie fast unmittelbar Feedback bekommen, wenn Sie ihn ändern? Verstehen Sie ihn? Wenn Sie eine dieser Fragen mit nein beantworten, arbeiten Sie mit Legacy Code, der Geld und wertvolle Entwicklungszeit kostet. Michael Feathers erläutert in diesem Buch Strategien für den gesamten Entwicklungsprozess, um effizient mit großen, ungetesteten Code-Basen zu arbeiten. Dabei greift er auf erprobtes Material zurück, das er für seine angesehenen Object-Mentor-Seminare entwickelt hat. Damit hat er bereits zahlreichen Entwicklern, technischen Managern und Testern geholfen, ihre Legacy-Systeme unter Kontrolle zu bringen. Darüber hinaus finden Sie auch einen Katalog mit 24 Techniken zur Aufhebung von Dependencies, die Ihnen zeigen, wie Sie isoliert mit Programmelementen arbeiten und Code sicherer ändern können.

SOFTWARE DEVELOPMENT TEAMS SUDHAKAR, G. P. 2015-11-30 Description: The book, Software Development Teams, offers a new and unique approach to developing software project teams. It guides IT experts and managers for forming, assessing and developing successful project management teams for effective performance and productivity. Focusing on the management side of the software industry, this text-cum-reference book discusses key aspects of the management such as performance measurement, organisational structure and development, motivation of the team with awards and rewards to bring innovative ideas, and the best practices followed in the modern software industry for measuring the team effectively. The book begins with an introduction of software teams, explaining how software projects are different. It then discusses the characteristics, skills and competencies that are required for a perfect programmer or a project manager, in addition to many other dimensions of software development teams. It further includes empirical studies on team climate, team performance, team productivity and team innovation. Next, it explores the factors that are important for maintaining the software development team climate, and the impact of conflicts on teams, which may ultimately have negative impact on the organisation. Tools and techniques to

measure performance of software development team are explained along with the factors that influence the teams' performance, relationship between team cohesion, productivity and finally the performance. Different types of possible innovation in software teams and organisations, innovation cycle and framework, role of top management and leadership in team management are also given due weightage. Providing an exhaustive description of the origin and present status of the Indian software industry using statistical data, the book is useful for the students of MBA (IT), BE/B.Tech (CS and IT), M.Tech (CS and IT) and M.Tech (Software Engineering). The book is also useful as a reference for professionals in the field of information systems, software project management, software engineering, team management and organisational development. Key features of the book • Highlights the latest studies in the field and cites inferences of various researchers. • Includes numerous figures, tables, graphs, and abbreviations to clarify the concepts. • Provides chapter-end questions and quick quiz (multiple choice questions with answers) to test the knowledge acquired. • Incorporates keywords and adequate number of references, which make the book an ideal tool for learning the concepts of software development teams. • Includes case studies to show the application of concepts of software development teams in real life scenarios.

Software Development, Design and Coding John F. Dooley 2017-11-25 Learn the principles of good software design, and how to turn those principles into great code. This book introduces you to software engineering — from the application of engineering principles to the development of software. You'll see how to run a software development project, examine the different phases of a project, and learn how to design and implement programs that solve specific problems. It's also about code construction — how to write great programs and make them work. Whether you're new to programming or have written hundreds of applications, in this book you'll re-examine what you already do, and you'll investigate ways to improve. Using the Java language, you'll look deeply into coding standards, debugging, unit testing, modularity, and other characteristics of good programs. With Software Development, Design and Coding, author and professor John Dooley distills his years of teaching and development experience to demonstrate practical techniques for great coding. What You'll Learn Review modern agile methodologies including Scrum and Lean programming Leverage the capabilities of modern computer systems with parallel programming Work with design patterns to exploit application development best practices Use modern tools for development, collaboration, and source code controls Who This Book Is For Early career software developers, or upper-level students in software engineering courses

Advances in Machine Learning Applications in Software Engineering Zhang, Du 2006-10-31 "This book provides analysis, characterization and refinement of software engineering data in terms of machine learning methods. It depicts applications of several machine learning approaches in software systems development and deployment, and the use of machine learning methods to establish predictive models for software quality while offering readers suggestions by proposing future work in this emerging research field"--Provided by publisher.

Sieben Wochen, sieben Sprachen (Prags) Bruce A. Tate 2011-06-30 Mit diesen sieben Sprachen erkunden Sie die wichtigsten Programmiermodelle unserer Zeit. Lernen Sie die dynamische Typisierung kennen, die Ruby, Python und Perl

so flexibel und verlockend macht. Lernen Sie das Prototyp-System verstehen, das das Herzstück von JavaScript bildet. Erfahren Sie, wie das Pattern Matching in Prolog die Entwicklung von Scala und Erlang beeinflusst hat. Entdecken Sie, wie sich die rein funktionale Programmierung in Haskell von der Lisp-Sprachfamilie, inklusive Clojure, unterscheidet. Erkunden Sie die parallelen Techniken, die das Rückgrat der nächsten Generation von Internet-Anwendungen bilden werden. Finden Sie heraus, wie man Erlangs "Lass es abstürzen"-Philosophie zum Aufbau fehlertoleranter Systeme nutzt. Lernen Sie das Aktor-Modell kennen, das das parallele Design bei Io und Scala bestimmt. Entdecken Sie, wie Clojure die Versionierung nutzt, um einige der schwierigsten Probleme der Nebenläufigkeit zu lösen. Hier finden Sie alles in einem Buch. Nutzen Sie die Konzepte einer Sprache, um kreative Lösungen in einer anderen Programmiersprache zu finden – oder entdecken Sie einfach eine Sprache, die Sie bisher nicht kannten. Man kann nie wissen – vielleicht wird sie sogar eines ihrer neuen Lieblingswerkzeuge.

Best Practice Software-Engineering Alexander Schatten 2010-01-28 Software-Komponenten tragen durch einen hohen Grad an Wiederverwendbarkeit, bessere Testbarkeit und Wartbarkeit zur effizienten Herstellung komplexer Software-Anwendungen bei. Diese Vorteile bedingen jedoch oft eine aufwendigere Einarbeitung beim Einstieg in diese Materie durch die Vielzahl an komplexen Komponenten-Frameworks, Werkzeugen und Entwurfsansätzen. Das vorliegende Buch „Best-Practice Software Engineering" bietet Neu- und Wiedereinsteigern in die komponentenorientierte Software-Entwicklung eine Einführung in die Materie durch eine abgestimmte Zusammenstellung von praxiserprobten Konzepten, Techniken und Werkzeugen für alle Aspekte eines erfolgreichen Projekts. Für moderne Software-Entwicklung sind eine Vielzahl von unterschiedlichen Fähigkeiten erforderlich, die nur im richtiger Kombination zu einem erfolgreichen Ergebnis führen. Daher wird in diesem Buch besonderer Wert darauf gelegt, nicht einzelne Techniken des Software Engineerings isoliert zu betrachten, sondern das effiziente Zusammenspiel verschiedener Aspekte darzustellen. Schwerpunkte liegen auf Vorgehensstrategien im Software-Lebenszyklus, Projektmanagement, Qualitätssicherung, UML-Modellierung, Entwurfsmustern und Architekturen, komponentenorientierter Software-Entwicklung sowie ausgewählten Techniken und Werkzeugen. Zu den Beispielen im Buch finden Sie den vollständigen Source Code sowie umfangreiche Fallbeispiele zu Artefakten aus dem Projektverlauf auf der Webseite zum Buch.

Lean Software Systems Engineering for Developers Doug Durham 2021-09-19 Get to the next level of your software development career, learning the tools you need to successfully manage the complexity of modern software systems. Whether you are developer at a small software company or a large enterprise, your success is directly related to the ability of your development team to rapidly respond to change. What makes this task challenging is that the tech challenges we strive to overcome are becoming increasingly more complex: requirements, solution, hosting, support, pace of change, etc. A good developer manages every aspect of the program and understands that when details and decisions are left to chance, outcomes can be negatively impacted and result in increased errors due to substandard quality. It is the difference between being a professional software engineer and a programmer. You will know how look at the entire spectrum of the software development process and learn valuable concepts and apply these principles through meaningful examples, exercises,

case studies, and source code. What You Will Learn Know what it means to be a professional software engineer Spend more time doing software development and minimize the pain of dealing with inefficient processes Integrate Lean and Agile practices to reduce errors in judgment and provide predictable outcomes, while still maintaining agility and responsiveness Ensure a shared understanding in the group of stakeholders Validate user experience early and often to minimize costly re-work Develop software designs and architectures that age well and enable long-term business agility Implement patterns and processes that result in developers "falling into the pit of success" instead of into the "pit of failure" Adopt the necessary processes and patterns that will result in "institutionalized" quality that is pervasive Redefine the important role of technical leadership to ensure team maturity and growth Who This Book Is For Software developers and team leaders who have struggled to implement design and development best practices due to lack of in-depth knowledge or experience, and want a book designed to provide the confidence and foundational skills needed to achieve success

Künstliche Intelligenz für Dummies Ralf Otte 2019-06-05 Künstliche Intelligenz begegnet uns immer mehr im täglichen Leben. Egal ob intelligente Autos, Roboter, Chatbots oder Systeme, die uns im Schach und Go besiegen, KI wird immer wichtiger. Ralf Otte beschreibt präzise und dennoch einfach diejenigen Algorithmen, die all das ermöglicht haben, erläutert Beispielanwendungen aus der Industrie, erklärt die zugrundeliegende Mathematik und zeigt darüber hinaus klare Grenzen für die Künstliche Intelligenz der nächsten Jahre auf. Egal ob Informatiker oder nicht, um dieses Buch zu verstehen genügt Mathematikwissen auf Oberstufenniveau.

Hands-On Software Engineering with Golang Achilleas Anagnostopoulos 2020-01-24 Explore software engineering methodologies, techniques, and best practices in Go programming to build easy-to-maintain software that can effortlessly scale on demand Key FeaturesApply best practices to produce lean, testable, and maintainable Go code to avoid accumulating technical debtExplore Go's built-in support for concurrency and message passing to build high-performance applicationsScale your Go programs across machines and manage their life cycle using KubernetesBook Description Over the last few years, Go has become one of the favorite languages for building scalable and distributed systems. Its opinionated design and built-in concurrency features make it easy for engineers to author code that efficiently utilizes all available CPU cores. This Golang book distills industry best practices for writing lean Go code that is easy to test and maintain, and helps you to explore its practical implementation by creating a multi-tier application called Links 'R' Us from scratch. You'll be guided through all the steps involved in designing, implementing, testing, deploying, and scaling an application. Starting with a monolithic architecture, you'll iteratively transform the project into a service-oriented architecture (SOA) that supports the efficient out-of-core processing of large link graphs. You'll learn about various cutting-edge and advanced software engineering techniques such as building extensible data processing pipelines, designing APIs using gRPC, and running distributed graph processing algorithms at scale. Finally, you'll learn how to compile and package your Go services using Docker and automate their deployment to a Kubernetes cluster. By the end of this book, you'll know how to think like a professional software developer or engineer and write lean and efficient Go code. What you will learnUnderstand different stages

of the software development life cycle and the role of a software engineerCreate APIs using gRPC and leverage the middleware offered by the gRPC ecosystemDiscover various approaches to managing package dependencies for your projectsBuild an end-to-end project from scratch and explore different strategies for scaling itDevelop a graph processing system and extend it to run in a distributed mannerDeploy Go services on Kubernetes and monitor their health using PrometheusWho this book is for This Golang programming book is for developers and software engineers looking to use Go to design and build scalable distributed systems effectively. Knowledge of Go programming and basic networking principles is required.