

Software Engineering Online Course

This is likewise one of the factors by obtaining the soft documents of this **Software Engineering Online Course** by online. You might not require more get older to spend to go to the books opening as competently as search for them. In some cases, you likewise do not discover the statement Software Engineering Online Course that you are looking for. It will entirely squander the time.

However below, next you visit this web page, it will be for that reason definitely easy to get as well as download lead Software Engineering Online Course

It will not understand many time as we accustom before. You can reach it though law something else at house and even in your workplace. as a result easy! So, are you question? Just exercise just what we offer under as well as review **Software Engineering Online Course** what you in imitation of to read!



Deep Learning for Coders with fastai and PyTorch "O'Reilly Media, Inc." Practical Software Architecture Solutions from the Legendary Robert C. Martin (" Uncle Bob ") By applying universal rules of software architecture, you can dramatically improve developer productivity throughout the life of any software system. Now, building upon the success of his best-selling books Clean Code and The Clean Coder, legendary software craftsman Robert C. Martin (" Uncle Bob ") reveals those rules and helps you apply them. Martin ' s Clean Architecture doesn ' t merely present options. Drawing on over a half-century of experience in software environments of every imaginable type, Martin tells you what choices to make and why they are critical to your success. As you ' ve come to expect from Uncle Bob, this book is packed with direct, no-nonsense solutions for the real challenges you ' ll face – the ones that will make or break your projects. Learn what software architects need to achieve – and core disciplines and practices for achieving it Master essential software design principles for addressing function, component separation, and data management See how programming paradigms impose discipline by restricting what developers can do Understand what ' s critically important and what ' s merely a " detail " Implement optimal, high-level structures for web, database, thick-client, console, and embedded applications Define appropriate boundaries and layers, and organize components and services See why designs and architectures go wrong, and how to prevent (or fix) these failures Clean Architecture is essential reading for every current or aspiring software architect, systems analyst, system designer, and software manager – and for every programmer who must execute someone else ' s designs. Register your product for convenient access to downloads, updates, and/or corrections as they become available.

Engineering Software as a Service HarperCollins "This book addresses the topic of software design: how to decompose complex software systems into modules (such as classes and methods) that can be implemented relatively independently. The book first introduces the fundamental problem in software design, which is managing complexity. It then discusses philosophical issues about how to approach the software design process and it presents a collection of design principles to apply during software design. The book also introduces a set of red flags that identify design problems. You can apply the ideas in this book to minimize the complexity of large software systems, so that you can write software more quickly and cheaply." --Amazon.

A Philosophy of Software Design Mit Press

Interested in developing embedded systems? Since they don ' t tolerate inefficiency, these systems require a disciplined approach to programming. This easy-to-read guide helps you cultivate a host of good development practices, based on classic software design patterns and new patterns unique to embedded programming. Learn how to build system architecture for processors, not operating systems, and discover specific techniques for dealing with hardware difficulties and manufacturing requirements. Written by an expert who ' s created embedded systems ranging from urban surveillance and DNA scanners to children ' s toys, this book is ideal for intermediate and experienced programmers, no matter what platform you use. Optimize your system to reduce cost and increase performance Develop an architecture that makes your software robust in resource-constrained environments Explore sensors, motors, and other I/O devices Do more with less: reduce RAM consumption, code space, processor cycles, and power consumption Learn how to update embedded code directly in the processor Discover how to implement complex mathematics on small processors Understand what interviewers look for when you apply for an embedded systems job "Making Embedded Systems is the book for a C programmer who wants to enter the fun (and lucrative) world of embedded systems. It ' s very well written ' s entertaining, even ' s and filled with clear illustrations." ' s Jack Ganssle, author and embedded system expert.

The Minimum You Need to Know about Logic to Work in IT Addison-Wesley Professional

Software engineering is one of the most knowledge intensive jobs. Thus, having a good knowledge management (KM) strategy in these organisations is very important. This book examines software processes from a knowledge perspective flow, in order to identify the particular knowledge needs of such processes to then be in a better position for proposing systems or strategies to address those needs. Its possible benefits are illustrated through the results of a study in a software maintenance process within a small software organisation. Furthermore, software product line architecture is regarded as one of the crucial piece of entity in software product lines. The authors of this book discuss the state of the art of software

product line engineering from the perspectives of business, architecture, process and organisation. In recent years, domain-specific languages have been proposed for modelling applications on a high level of abstraction. Although the usage of domain-specific languages offers clear advantages, their design is a highly complex task. This book presents a pragmatic way for designing and using domain-specific languages. Other chapters in this book examine the development of numerical methodologies for inverse determination of material constitutive model parameters, discuss some of the reasons for the irrelevancy of software engineering to the robotic community, review the evolution of robotic software over time, and propose the use of Ant Colony Optimisation, a kind of metaheuristic algorithm, to find general property violations in concurrent systems using a explicit state model checker. Clean Architecture Independently Published Improve Your Creativity, Effectiveness, and Ultimately, Your Code In Modern Software Engineering, continuous delivery pioneer David Farley helps software professionals think about their work more effectively, manage it more successfully, and genuinely improve the quality of their applications, their lives, and the lives of their colleagues. Writing for programmers, managers, and technical leads at all levels of experience, Farley illuminates durable principles at the heart of effective software development. He distills the discipline into two core exercises: learning and exploration and managing complexity. For each, he defines principles that can help you improve everything from your mindset to the quality of your code, and describes approaches proven to promote success. Farley's ideas and techniques cohere into a unified, scientific, and foundational approach to solving practical software development problems within realistic economic constraints. This general, durable, and pervasive approach to software engineering can help you solve problems you haven't encountered yet, using today's technologies and tomorrow's. It offers you deeper insight into what you do every day, helping you create better software, faster, with more pleasure and personal fulfillment. Clarify what you're trying to accomplish Choose your tools based on sensible criteria Organize work and systems to facilitate continuing incremental progress Evaluate your progress toward thriving systems, not just more "legacy code" Gain more value from experimentation and empiricism Stay in control as systems grow more complex Achieve rigor without too much rigidity Learn from history and experience Distinguish "good" new software development ideas from "bad" ones Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

Software Engineering and Development Pearson Education

(NOTE: this Beta Edition may contain errors. See <http://saasbook.info> for details.) A one-semester college course in software engineering focusing on cloud computing, software as a service (SaaS), and Agile development using Extreme Programming (XP). This book is neither a step-by-step tutorial nor a reference book. Instead, our goal is to bring a diverse set of software engineering topics together into a single narrative, help readers understand the most important ideas through concrete examples and a learn-by-doing approach, and teach readers enough about each topic to get them started in the field. Courseware for doing the work in the book is available as a virtual machine image that can be downloaded or deployed in the cloud. A free MOOC (massively open online course) at saas-class.org follows the book's content and adds programming assignments and quizzes. See <http://saasbook.info> for details.(NOTE: this Beta Edition may contain errors. See <http://saasbook.info> for details.) A one-semester college course in software engineering focusing on cloud computing, software as a service (SaaS), and Agile development using Extreme Programming (XP). This book is neither a step-by-step tutorial nor a reference book. Instead, our goal is to bring a diverse set of software engineering topics together into a single narrative, help readers understand the most important ideas through concrete examples and a learn-by-doing approach, and teach readers enough about each topic to get them started in the field. Courseware for doing the work in the book is available as a virtual machine image

that can be downloaded or deployed in the cloud. A free MOOC (massively open online course) at saas-class.org follows the book's content and adds programming assignments and quizzes. See <http://saasbook.info> for details.

Code Complete Penguin

Deep learning networks are getting smaller. Much smaller. The Google Assistant team can detect words with a model just 14 kilobytes in size—small enough to run on a microcontroller. With this practical book you ' ll enter the field of TinyML, where deep learning and embedded systems combine to make astounding things possible with tiny devices. Pete Warden and Daniel Situnayake explain how you can train models small enough to fit into any environment. Ideal for software and hardware developers who want to build embedded systems using machine learning, this guide walks you through creating a series of TinyML projects, step-by-step. No machine learning or microcontroller experience is necessary. Build a speech recognizer, a camera that detects people, and a magic wand that responds to gestures Work with Arduino and ultra-low-power microcontrollers Learn the essentials of ML and how to train your own models Train models to understand audio, image, and accelerometer data Explore TensorFlow Lite for Microcontrollers, Google ' s toolkit for TinyML Debug applications and provide safeguards for privacy and security Optimize latency, energy usage, and model and binary size

Engineering Long-lasting Software Prentice Hall

Software startups make global headlines every day. As technology companies succeed and grow, so do their engineering departments. In your career, you'll may suddenly get the opportunity to lead teams: to become a manager. But this is often uncharted territory. How can you decide whether this career move is right for you? And if you do, what do you need to learn to succeed? Where do you start? How do you know that you're doing it right? What does "it" even mean? And isn't management a dirty word? This book will share the secrets you need to know to manage engineers successfully. Going from engineer to manager doesn't have to be intimidating. Engineers can be managers, and fantastic ones at that. Cast aside the rhetoric and focus on practical, hands-on techniques and tools. You'll become an effective and supportive team leader that your staff will look up to. Start with your transition to being a manager and see how that compares to being an engineer. Learn how to better organize information, feel productive, and delegate, but not micromanage. Discover how to manage your own boss, hire and fire, do performance and salary reviews, and build a great team. You'll also learn the psychology: how to ship while keeping staff happy, coach and mentor, deal with deadline pressure, handle sensitive information, and navigate workplace politics. Consider your whole department. How can you work with other teams to ensure best practice? How do you help form guilds and committees and communicate effectively? How can you create career tracks for individual contributors and managers? How can you support flexible and remote working? How can you improve diversity in the industry through your own actions? This book will show you how. Great managers can make the world a better place. Join us.

Introduction to Medical Software CRC Press

This title gives students an integrated and rigorous picture of applied computer science, as it comes to play in the construction of a simple yet powerful computer system.

Internet of Medical Things Springer Nature

This book seeks to provide an overall view of the nature of software engineering, focusing on real world practice and guiding students of software engineering to understand the benefits and drawbacks of various methods. The text follows the natural life cycle of software development, providing the reader with a comprehensive overview of the software development field. The text includes coverage of methods, tools, principles and guidelines. Case studies and examples are also included throughout the text, providing explicit guidelines for virtually every situation that a software engineer may encounter. Key Features: * Can be used by undergraduates and first year

students of software engineering and development courses as well as professionals such as: Information Systems Managers, System Engineers, System Analysts, Software Project Managers, Software Engineers* Each chapter has a summary and exercises

Supplement: Instructor's guide and transparency masters: 0195111532
Artificial Intelligence with Python IGI Global
Summary This book is a comprehensive guide to the 1Z0-803 exam. You'll explore a wide range of important Java topics as you systematically learn how to pass the certification exam. Each chapter starts with a list of the exam objectives covered in that chapter. You'll find sample questions and exercises designed to reinforce key concepts and to prepare you for what you'll see in the real exam, along with numerous tips, notes, and visual aids throughout the book. About This Book To earn the OCA Java SE 7 Programmer Certification, you need to know your Java inside and out, and to pass the exam it's good to understand the test itself. This book cracks open the questions, exercises, and expectations you'll face on the OCA exam so you'll be ready and confident on test day. OCA Java SE 7 Programmer I Certification Guide is a comprehensive guide to the 1Z0-803 exam. You'll explore important Java topics as you systematically learn what is required. Each chapter starts with a list of exam objectives, followed by sample questions and exercises designed to reinforce key concepts. It provides multiple ways to digest important techniques and concepts, including analogies, diagrams, flowcharts, and lots of well-commented code. Written for developers with a working knowledge of Java who want to earn the OCA Java SE 7 Programmer I Certification. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Covers all exam topics Hands-on coding exercises How to avoid built-in traps and pitfalls About the Author Mala Gupta has been training programmers to pass Java certification exams since 2006. She holds OCA Java SE7 Programmer I, SCWCD, and SCJP certifications. Table of Contents Introduction Java basics Working with Java data types Methods and encapsulation String, StringBuilder, Arrays, and ArrayList Flow control Working with inheritance Exception handling Full mock exam

Ultralearning Packt Publishing Ltd
Building, scaling, and optimizing the next generation of Web applications.

Computer Systems and Software Engineering: Concepts, Methodologies, Tools, and Applications O'Reilly Media
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

The Elements of Computing Systems "O'Reilly Media, Inc." Widely considered one of the best practical guides to programming, Steve McConnell's original CODE COMPLETE has been helping developers write better software for more than a decade. Now this classic book has been fully updated and revised with leading-edge practices—and hundreds of new code samples—illustrating the art and science of software construction. Capturing the body of knowledge available from research, academia, and everyday commercial practice, McConnell synthesizes the most effective techniques and must-know principles into clear, pragmatic guidance. No matter what your experience level, development environment, or project size, this book will inform and stimulate your thinking—and help you build the highest quality code. Discover the timeless techniques and strategies that help you: Design for minimum complexity and maximum creativity Reap the benefits of collaborative development Apply defensive programming techniques to reduce and flush out errors Exploit opportunities to refactor—or evolve—code, and do it safely Use construction practices that are right-weight for your project Debug problems quickly and

effectively Resolve critical construction issues early and correctly Build quality into the beginning, middle, and end of your project

Learning How to Learn O'Reilly Media
Build real-world Artificial Intelligence applications with Python to intelligently interact with the world around you About This Book Step into the amazing world of intelligent apps using this comprehensive guide Enter the world of Artificial Intelligence, explore it, and create your own applications Work through simple yet insightful examples that will get you up and running with Artificial Intelligence in no time Who This Book Is For This book is for Python developers who want to build real-world Artificial Intelligence applications. This book is friendly to Python beginners, but being familiar with Python would be useful to play around with the code. It will also be useful for experienced Python programmers who are looking to use Artificial Intelligence techniques in their existing technology stacks. What You Will Learn Realize different classification and regression techniques Understand the concept of clustering and how to use it to automatically segment data See how to build an intelligent recommender system Understand logic programming and how to use it Build automatic speech recognition systems Understand the basics of heuristic search and genetic programming Develop games using Artificial Intelligence Learn how reinforcement learning works Discover how to build intelligent applications centered on images, text, and time series data See how to use deep learning algorithms and build applications based on it In Detail Artificial Intelligence is becoming increasingly relevant in the modern world where everything is driven by technology and data. It is used extensively across many fields such as search engines, image recognition, robotics, finance, and so on. We will explore various real-world scenarios in this book and you'll learn about various algorithms that can be used to build Artificial Intelligence applications. During the course of this book, you will find out how to make informed decisions about what algorithms to use in a given context. Starting from the basics of Artificial Intelligence, you will learn how to develop various building blocks using different data mining techniques. You will see how to implement different algorithms to get the best possible results, and will understand how to apply them to real-world scenarios. If you want to add an intelligence layer to any application that's based on images, text, stock market, or some other form of data, this exciting book on Artificial Intelligence will definitely be your guide! Style and approach This highly practical book will show you how to implement Artificial Intelligence. The book provides multiple examples enabling you to create smart applications to meet the needs of your organization. In every chapter, we explain an algorithm, implement it, and then build a smart application.

System Design Interview - An Insider's Guide No Starch Press

This book looks at the growing segment of Internet of Things technology (IoT) known as Internet of Medical Things (IoMT), an automated system that aids in bridging the gap between isolated and rural communities and the critical healthcare services that are available in more populated and urban areas. Many technological aspects of IoMT are still being researched and developed, with the objective of minimizing the cost and improving the performance of the overall healthcare system. This book focuses on innovative IoMT methods and solutions being developed for use in the application of healthcare services, including post-surgery care, virtual home assistance, smart real-time patient monitoring, implantable sensors and cameras, and diagnosis and treatment planning. It also examines critical issues around the technology, such as security vulnerabilities, IoMT machine learning approaches, and medical data compression for lossless data transmission and archiving. Internet of Medical Things is a valuable reference for researchers, students, and postgraduates working in biomedical, electronics, and communications engineering, as well as practicing healthcare professionals.

TinyML Cambridge University Press

A surprisingly simple way for students to master any subject--based on one of the world's most popular online courses and the bestselling book A Mind for Numbers A Mind for Numbers and its wildly popular online companion course "Learning How to Learn" have empowered more than two million learners of all ages from around the world to master subjects that they once struggled with. Fans often wish they'd discovered these learning strategies earlier and ask how they can help their

kids master these skills as well. Now in this new book for kids and teens, the authors reveal how to make the most of time spent studying. We all have the tools to learn what might not seem to come naturally to us at first--the secret is to understand how the brain works so we can unlock its power. This book explains: Why sometimes letting your mind wander is an important part of the learning process How to avoid "rut think" in order to think outside the box Why having a poor memory can be a good thing The value of metaphors in developing understanding A simple, yet powerful, way to stop procrastinating Filled with illustrations, application questions, and exercises, this book makes learning easy and fun.

Software Engineering Fundamentals Pearson Education
This volume features a collection of papers on emerging concepts, significant insights, novel approaches and ideas in information systems development (ISD). It examines advances in ISD in general and investigates emerging trends that will shape the ISD research agenda beyond 2020. The book gathers selected papers from the 28th International Conference on Information Systems Development held in Toulon, France on August 28-30, 2019. The revised and extended papers explore the mutual influences between information systems and organizational structures, processes and people, and promote research into methodological issues and ways in which the IS designers and developers are transforming organizations and society through information systems. Chapter "Smart Grid Challenges through the lens of the European General Data Protection Regulation" is available open access under a Creative Commons Attribution 4.0 International License via link.springer.com

Optimized C++ No Starch Press

Winner of the 2011 Jolt Excellence Award! Getting software released to users is often a painful, risky, and time-consuming process. This groundbreaking new book sets out the principles and technical practices that enable rapid, incremental delivery of high quality, valuable new functionality to users. Through automation of the build, deployment, and testing process, and improved collaboration between developers, testers, and operations, delivery teams can get changes released in a matter of hours—sometimes even minutes—no matter what the size of a project or the complexity of its code base. Jez Humble and David Farley begin by presenting the foundations of a rapid, reliable, low-risk delivery process. Next, they introduce the “deployment pipeline,” an automated process for managing all changes, from check-in to release. Finally, they discuss the “ecosystem” needed to support continuous delivery, from infrastructure, data and configuration management to governance. The authors introduce state-of-the-art techniques, including automated infrastructure management and data migration, and the use of virtualization. For each, they review key issues, identify best practices, and demonstrate how to mitigate risks. Coverage includes • Automating all facets of building, integrating, testing, and deploying software • Implementing deployment pipelines at team and organizational levels • Improving collaboration between developers, testers, and operations • Developing features incrementally on large and distributed teams • Implementing an effective configuration management strategy • Automating acceptance testing, from analysis to implementation • Testing capacity and other non-functional requirements • Implementing continuous deployment and zero-downtime releases • Managing infrastructure, data, components and dependencies • Navigating risk management, compliance, and auditing Whether you're a developer, systems administrator, tester, or manager, this book will help your organization move from idea to release faster than ever—so you can deliver value to your business rapidly and reliably.

Automate the Boring Stuff with Python, 2nd Edition "O'Reilly Media, Inc."

Learn and use Python and PyGame to design and build cool arcade games. In Program Arcade Games: With Python and PyGame, Second Edition, Dr. Paul Vincent Craven teaches you how to create fun and simple quiz games; integrate and start using graphics; animate graphics; integrate and use game controllers; add sound and bit-mapped graphics; and build grid-based games. After reading and using this book, you'll be able to learn to program and build simple arcade game applications using one of today's most popular programming languages, Python. You can even deploy onto Steam and other Linux-based game systems as well as Android, one of today's most popular mobile and tablet platforms. You'll learn: How to create quiz games How to integrate and start using graphics How to animate graphics How to integrate and use game controllers How to add sound and bit-mapped graphics How to build grid-based games Audience "div > This book assumes no prior programming knowledge.