The First Book about the Red-Hot Subject!

Do you need a self-designed cell phone case, a three-dimensional family photo, or a spare part for a broken household item? No problem for a 3-D printer! Rapid prototyping, rapid tooling, and rapid manufacturing were used exclusively in the industrial domain; yet they are quickly finding their way to home users. 3-D printing has tremendous growth potential.

This book shows how to become part of the make-it-yourself community. It is a compact, vivid, and practical guide for entering the world of 3-D printing. The reader will learn how the technology works, what it can accomplish, and what we can expect of it in the future.

Numerous workshops show how to advance from a design to a finished product, what equipment is needed, and which is the most appropriate printing method for the job at hand. The text includes the complete array of possibilities. These include the design of an original solid model, the use of individual data sets, or the digitization of existing designs. It does not matter whether you use your own printer, a printing service, or an outside lab. Florian Horsch will show you all the tips and tricks that will help you to get started in your career as a make-it-yourselfer 2.0.

The website for the book presents data for selected examples, additional links, plus the latest 3-D printing news and events.

The Author

Florian Horsch is studying economic engineering at the University of Bayreuth. He has been an active member of the 3-D print community since 2011. He consults companies about the development and marketing of printers, sets up fairs, and conducts many lectures and workshops about 3-D printing.

"The impact of 3-D printing will be greater than the invention of the Internet."

Chris Anderson
Computer Games - From Niche to Mass Market!

Computer games such as Angry Birds and roll plays such as World of Warcraft have become economic hits. The computer industry profits handily from this development and the volume of new games is continuously increasing.

The textbook takes a closer look at this trend and investigates the reasons for the gaming craze.

The main part of the book describes the state of technology regarding the production of computer games, emphasizing game design, programming, the way the gaming industry operates and job profiles in the gaming industry. The text also introduces the various kinds of games and contains a glossary of important terms.

The book is clearly laid out and combines theory and practice. It makes it easy for the reader to get insights in the design and development of computer games. It also helps the understanding by integrating numerous screen shots, graphics, and images.

The Author:
Professor Gunter Rehfeld researches and teaches "online computer games and communities" at the department media technology of the HAW Hamburg. The video industry covets his students; some of whom developed the award winning and commercially successful game “Edna's Escape.”
This book provides an in-depth introduction to game development with Gamestudio A8. You will learn how to plan a game, furnish it with the most modern techniques like shaders or physics, provide a realistic touch, and fill it with life. The full breadth of Lite-C is used in order to create a game high on performance and low on memory usage. Newcomers are introduced to the language from the ground up and advanced developers are given a deeper knowledge with particular text blocks.

Part I of the book introduces the features of Gamestudio and the theory of game development. Part II teaches all the important techniques such as coding, 3D modeling, sounds and music, physics, etc. Part III treats more advanced topics, including stereo 3D graphics, writing your own plugins, and creating a project plan for game development in a team.

At the conclusion of the text a complete role-playing game is developed, in which all the techniques are applied.

The book comes with a DVD containing the complete game, the individual code modules, video tutorials for specific topics such as imaging, and other useful tools.

**The Author:**

*Jonas Freiknecht,* a B.S. in computer science, works at IBM Germany as an IT consultant in the field of "Distributed Systems" and "Mobile Architectures." Since the age of 14 he has been involved in the design and development of computer games. He periodically publishes articles on his blog www.jofre.de.
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HANSER is the market leader in the literature of software architecture

Software architects have a difficult job; they must implement complex and demanding requirements on IT systems. These systems must be kept flexible and upgradable through reproducible structures. This practical guide shows how software architectures are developed effectively and systematically. Gernot Starke provides a lot of tips, architecture patterns and weaves in much of his professional experiences as a widely known software architect.

The author answers these core questions:

- What is the job description of the software architect?
- How does the software architect lay out his design work?
- How do software architects communicate and document their work?
- How do they apply architecture patterns and building blocks?
- How do you evaluate a software architect?
- How do you rate persistence, graphical user interface, business practices, integration, distribution, security, error management, workflow management, and other technical concepts?
- What do software architects need to know about MDA/MDSD, UML 2, and arc42?
- What is the job of enterprise-IT architects?

New content in the 6th edition: new technical concepts (e.g. batch processing) and a chapter about model and modeling quality. The chapter "Architecture Evaluation" has been revised and includes expanded material about system evaluation.

The Author:

Gernot Starke, PhD, helped to initiate and helps to run arc42. He was also involved in founding iSAQB e.V. and is a fellow at innoQ.
HANSER is the market leader in the literature of software architecture

Approaches to the development of architecture are often decades old; not surprisingly, they have not kept pace with the migration to agile processing. Architecture seems aged and loaded compared to recent project management practices. As a consequence, software architecture is either neglected or difficult to integrate into modern and dynamic environments. This is because today’s projects are run in teams, are very flexible, and are extremely result oriented. High quality products are produced with active customer involvement. Therefore architecture must rethink its role and partially reinvent itself; the beginning of this can be observed already. Development teams take care of architecture requirements; one can say that architecture is determined just-in-time and is embedded in the process of priorities of requirements and functions. The theory is lagging slightly behind at this stage.

This book does not present another process model for software architecture. Instead, it introduces light-weight building blocks for solid architecture work. These are based on their problem solving capability in order to optimize the project at hand. There is no need for customization, specs filling several hundred pages, or irrelevant checklists. Using the well established structure of patterns, a common problem from the daily routine is described and a methodical solution is given. With the new approach the given solutions reference to each other and they can be combined. They give the impression of a new architecture discipline. It is a discipline that is not focused on one particular architect but one that can be easily embedded in agile projects, and that is oriented on pragmatism and results. That said, one can start with small steps. Timely fragmentation allows for step-by-step learning and the adaptation of new practices.

The Author:
Stefan Toth is a developer/architect at Siemens in Vienna, Nürnberg, and Princeton, MA, USA, and a consultant/coach at "oose Innovative Informatic" in Hamburg. He advises development and architecture teams in questions of designs and processes. He conducts seminars about Java technology and the conduct of architecture evaluations.
This book shows how to craft technical documents. Concept, design, a clear and focused language, and a good writing style are the most important issues for the technical writer. But the book not only addresses computer scientists but also academics, professionals, and others who need to create specialized texts. The author also touches on homework and term papers, technical articles, documentation, presentations, hand-outs for workshops, and more. He imparts how to structure content and how to adapt it to the document type, and to convey knowledge to the reader in the most understandable way. The text also addresses the sensible use of pictures, diagrams, and tables. Furthermore, the author discusses working basics such as creating proper citations, references, bibliographies, glossaries, and indices. The text includes advice about word processing and graphics software.

The Author:
Christoph Prevezanos has been a freelance author since 2000. He has published more than 60 non-fiction books. He writes about computers, photography, the Internet, and many other topics.
We all want lean, effective business processes and the best possible IT support. We can find the solution for every problem if we can only make up our minds what the problem is.

This book is dedicated to comprehend a problem and to determine what we would like to see changed. It introduces many terms, such as business analysis, system analysis, requirements engineering, and the professional designations of many of the involved professionals.

It lays out an integrated proposal for dealing with the requirements and offers methods, notations, and many of the best practices to effectively manage the back and forth between clients and customers. Thus, it spans from discovery, documentation, and examination to administrative techniques.

The Author:
Peter Hruschka, PhD, is the "Principal of the Atlantic Systems Guild" and founding / board member of the International Requirements Engineering Board (IREB). His work focuses on training and coaching in software engineering.
Everybody knows that the amount of data in all types of businesses is growing rapidly. Many are concerned how these data are generated and multiply, how they are managed and turned into profit.

In this book various scenarios and uses of large amounts of data are described. It lays out the inherent business opportunities as well as the associated risks. The subject is illuminated from different perspectives. Case studies are cited that show how startups and other companies of the New-Economy deal with this issue today and where they will go tomorrow.

In addition, this book offers an overview of the technologies related to the topic of big data. It presents examples of tool-chains that contribute to and describe the generation of value. As a decision maker you will find the necessary information to evaluate the data needs of your business, the kind of big data you should deal with, and the skills your IT staff must have.
Mobile devices are everywhere! It is hard to imagine there was a life before smartphones, tablets, eBook readers, netbooks, notebooks, and ultrabooks took over. This calls for applications, or apps, that make new uses of these mobile devices and offer added value.

One route to answer this challenge is native programming of mobile apps. This means you focus on a particular hardware platform, including its special operating system or even just a particular version. It could be necessary to create a stand-alone-app for each platform which is functionally identical to the app for another target system. This can require an enormous effort.

If you wish to create apps independently from the hardware platform you can work with web technologies such as HTML5 and CSS3. In conjunction with JavaScript these are supported by all manufacturers of mobile devices. This way an app is developed one time and adapted with relative ease to all other mobile platforms. The tool of choice for this endeavor is PhoneGap. Apps created this way integrate HTML5, CSS3, and JavaScript and allow the use of the particular hardware components of the various mobile devices. Likewise, you can install those apps as native apps on any device and market them in specific markets.

This book is about PhoneGap and the development of mobile apps.

It describes setting up PhoneGap from creating a suitable interface, how to access typical elements of a modern smartphone such as geolocation, orientation, camera to marketing and selling of apps.