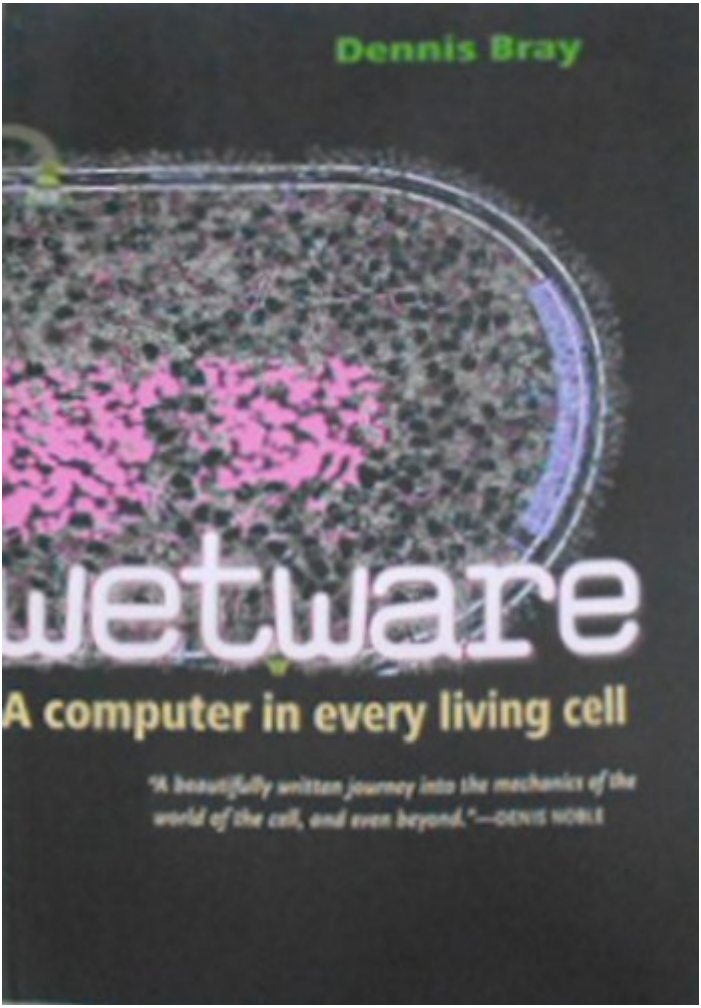

[MOBI] Wetware: A Computer In Every Living Cell

Eventually, you will categorically discover a other experience and completion by spending more cash. nevertheless when? reach you recognize that you require to get those all needs in the same way as having significantly cash? Why dont you try to get something basic in the beginning? Thats something that will guide you to understand even more around the globe, experience, some places, gone history, amusement, and a lot more?

It is your completely own times to acquit yourself reviewing habit. among guides you could enjoy now is **Wetware: A Computer in Every Living Cell** below.

Wetware-Dennis Bray 2009-05-26 “A beautifully written journey into the mechanics of the world of the cell, and even beyond, exploring the analogy with computers in a surprising way” (Denis Noble, author of Dance to the Tune of Life). How does a single-cell creature, such as an amoeba, lead such a sophisticated life? How does it hunt living prey, respond to lights, sounds, and smells, and display complex sequences of movements without the benefit of a nervous system? This book offers a startling and original answer. In clear, jargon-free language, Dennis Bray taps the findings from the discipline of systems biology to show that the internal chemistry of living cells is a form of computation. Cells are built out of molecular circuits that perform logical operations, as electronic devices do, but with unique properties. Bray argues that the computational juice of cells provides the basis for all

distinctive properties of living systems: it allows organisms to embody in their internal structure an image of the world, and this accounts for their adaptability, responsiveness, and intelligence. In Wetware, Bray offers imaginative, wide-ranging, and perceptive critiques of robotics and complexity theory, as well as many entertaining and telling anecdotes. For the general reader, the practicing scientist, and all others with an interest in the nature of life, this book is an exciting portal to some of biology's latest discoveries and ideas. "Drawing on the similarities between Pac-Man and an amoeba and efforts to model the human brain, this absorbing read shows that biologists and engineers have a lot to learn from working together." —Discover magazine "Wetware will get the reader thinking." —Science magazine

Wetware-Dennis Bray 2009 How does a single-cell creature, such as an amoeba, lead such a sophisticated life? How does it hunt living prey, respond to lights, sounds, and smells, and display complex sequences of movements without the benefit of a nervous system? This book offers a startling and original answer. In clear, jargon-free language, Dennis Bray taps the findings of the new discipline of systems biology to show that the internal chemistry of living cells is a form of computation. Cells are built out of molecular circuits that perform logical operations, as electronic devices do, but with unique properties. Bray argues that the computational juice of cells provides the basis of all the distinctive properties of living systems: it allows organisms to embody in their internal structure an image of the world, and this accounts for their adaptability, responsiveness, and intelligence. In Wetware, Bray offers imaginative, wide-ranging and perceptive critiques of robotics and complexity theory, as well as many entertaining and telling anecdotes. For the general reader, the practicing scientist, and all others with an interest in the nature of life, the book is an exciting

portal to some of biology's latest discoveries and ideas.

Cyberpunk-Victoria 2013-03-12 Cyberpunk has brought us films like Blade Runner, Tron, and The Matrix, and it has brought us now-classic novels like Snow Crash and Neuromancer. It continues to be a powerful theme in contemporary literature as writers imagine a gritty, dark, wild, and wicked future where body modification, seedy elements, omniscient corporations, and a few down-luck anti-heroes are always having it out. Inside the covers of this book, readers find stories by the best and the finest cyberpunk writers — from foundational authors like Bruce Sterling and William Gibson to new voices like Cory Doctorow — all of whom write with the fire and zeal that powers the best cyberpunk writing. Here are stories about society gone wrong and society saved, about soulless humans and soulful machines, about futures worth fighting for and futures that do nothing but kill. Welcome to your cyberpunk world. Welcome to your cyberpunk world.

Circuits of the Mind-Leslie G. Valiant 2000 While embracing the now classical theories of McCulloch and Pitts, the neuroidal model also accommodates state information in the neurons, more flexible timing mechanisms, a variety of assumptions about interconnectivity, and the possibility that different brain areas perform specialized functions. Programmable so that a wide range of algorithmic theories can be described and evaluated, the model provides a concrete computational language and a unified framework in which diverse cognitive phenomena - such as memory, learning, and reasoning - can be systematically and concurrently analyzed. Requiring no specialized knowledge, Circuits of the Mind masterfully offers an exciting new approach to brain science for students and researchers in computer science, neurobiology, neuroscience, artificial intelligence, and cognitive science.

Pragmatic Thinking and Learning-Andy Hunt 2008-10-28 Printed in full color. Software development happens in your head. Not in an editor, IDE, or designtool. You're well educated on how to work with software and hardware, but what about wetware--our own brains? Learning new skills and new technology is critical to your career, and it's all in your head. In this book by Andy Hunt, you'll learn how our brains are wired, and how to take advantage of your brain's architecture. You'll learn new tricks and tipsto learn more, faster, and retain more of what you learn. You need a pragmatic approach to thinking and learning. You need to Refactor Your Wetware. Programmers have to learn constantly; not just the stereotypical new technologies, but also the problem domain of the application, the whims of the user community, the quirks of your teammates, the shifting sands of the industry, and the evolving characteristics of the project itself as it is built. We'll journey together through bits of cognitive and neuroscience, learning and behavioral theory. You'll see some surprising aspects of how our brains work, and how you can take advantage of the system to improve your own learning and thinking skills. In this book you'll learn how to: Use the Dreyfus Model of Skill Acquisition to become more expert Leverage the architecture of the brain to strengthen different thinking modes Avoid common "known bugs" in your mind Learn more deliberately and more effectively Manage knowledge more efficiently

Wetware-Craig Nova 2007-12-18 As a programmer for Galapagos Wetware, Hal Briggs is responsible for writing the genetic code for simple, efficient creatures to be employed in menial jobs–sweeping streets or washing dishes. But the demands for “wetware” are changing, and Briggs is given a project that calls for more sophisticated models: clients are demanding more human appearance and behavior. As the project progresses, Briggs finds himself endowing the

new models with more than the specifications dictate, giving them distinct personalities and talents and highly developed acumens. When two of his pet projects, Jack and Kay, escape, Briggs reexamines their codes and makes a terrifying yet provocative discovery. From Craig Nova, a master of the modern novel, comes a tale eerie in its vision of a future not far off, of a world precariously close to today's.

Natural Computing: DNA, Quantum Bits, and the Future of Smart Machines-Dennis E. Shasha 2010-05-17 Computer-scientist Dennish Shasha, perhaps best known for his work on the 'Puzzling Adventures' column in Scientific American, here teams up with journalist Cathy Lazere to explore the outer reaches of current computer science theory. After dozens of interviews, they realized that while researchers are working in a variety of disciplines in science, engineering, and even finance, they all share a common vision: the future of computing is a synthesis with nature. The stories that result defy belief. Instead of designing a high precision machine that handles every possibility, space engineers propose to design machines that will adapt to handle new possibilities. Other researchers are exploring wetware processing built on DNA or bacterial cells that promises nearly free and massively parallel computation. Another designer's 'extended analog computer,' a piece of foam attached to 25 wires, has turned computing completely on its head: instead of calculating an answer using ones and zeros and arithmetic as in a digital computer, his measures an answer. In lively, readable prose, Shasha and Lazere take readers on a tour of this bizarre and fascinating world.

Genesis Machines-Martyn Amos 2007-06-14 The paperback version of the groundbreaking book about the next generation of computers: not only are they smaller—they're alive. Cells, gels, and DNA strands are the

"wetware" of the twenty-first century. Imagine taking cells from a cancer patient and programming them to detect disease and then prompt the body to cure itself. Or clothes woven with microchips, nanofibers, and living cells to form wearable bio-weapons detection systems. Both of these revolutionary applications are closer than we think. Some scientists are pushing the boundaries even further by creating synthetic biology where brand new creatures are engineered in the laboratory. In this breathtaking book, a leading expert in the field reveals just how the stuff of science fiction is rapidly becoming a reality. This new technology will change the way we think—not just about computers, but about the nature of life itself.

But how Do it Know?-J. Clark Scott 2009-07-04 This book thoroughly explains how computers work. It starts by fully examining a NAND gate, then goes on to build every piece and part of a small, fully operational computer. The necessity and use of codes is presented in parallel with the apprioriate pieces of hardware. The book can be easily understood by anyone whether they have a technical background or not. It could be used as a textbook.

Wetwares-Richard Doyle 2003 The mind of the machine, the body suspended in time, organs exchanged, thought computed, genes manipulated, DNA samples abducted by aliens: the terrain between science and speculation, fraught with the possibility of technological and perhaps even evolutionary transformations, is the territory Richard Doyle explores in Wetwares. In a manner at once sober and playful, Doyle maps potentials for human transformation by new ecologies of information in the early twenty-first century. Wetwares ranges over recent research in artificial life, cloning, cryonics, computer science, organ transplantation, and alien abduction. Moving between actual technical practices, serious speculative technology, and science fiction, Doyle shows us

emerging scientific paradigms where "life" becomes more a matter of information than of inner vitality--in short, becomes "wetwares" for DNA and computer networks. Viewing technologies of immortality--from cryonics to artificial life--as disciplines for welcoming a thoroughly other future, a future of neither capital, god, human, nor organism, the book offers tools for an evolutionary, transhuman mutation in the utterly unpredictable decades to come.

The Intelligent Web-Gautam Shroff 2013-11-28 As we use the Web for social networking, shopping, and news, we leave a personal trail. These days, linger over a Web page selling lamps, and they will turn up at the advertising margins as you move around the Internet, reminding you, tempting you to make that purchase. Search engines such as Google can now look deep into the data on the Web to pull out instances of the words you are looking for. And there are pages that collect and assess information to give you a snapshot of changing political opinion. These are just basic examples of the growth of "Web intelligence", as increasingly sophisticated algorithms operate on the vast and growing amount of data on the Web, sifting, selecting, comparing, aggregating, correcting; following simple but powerful rules to decide what matters. While original optimism for Artificial Intelligence declined, this new kind of machine intelligence is emerging as the Web grows ever larger and more interconnected. Gautam Shroff takes us on a journey through the computer science of search, natural language, text mining, machine learning, swarm computing, and semantic reasoning, from Watson to self-driving cars. This machine intelligence may even mimic at a basic level what happens in the brain.

The Pragmatic Programmer-Andrew Hunt 1999-10-20 What others in the trenches say about The Pragmatic Programmer... “The cool thing about this book is that it’s great for

keeping the programming process fresh. The book helps you to continue to grow and clearly comes from people who have been there." —Kent Beck, author of Extreme Programming Explained: Embrace Change "I found this book to be a great mix of solid advice and wonderful analogies!" —Martin Fowler, author of Refactoring and UML Distilled "I would buy a copy, read it twice, then tell all my colleagues to run out and grab a copy. This is a book I would never loan because I would worry about it being lost." —Kevin Ruland, Management Science, MSG-Logistics "The wisdom and practical experience of the authors is obvious. The topics presented are relevant and useful.... By far its greatest strength for me has been the outstanding analogies—tracer bullets, broken windows, and the fabulous helicopter-based explanation of the need for orthogonality, especially in a crisis situation. I have little doubt that this book will eventually become an excellent source of useful information for journeymen programmers and expert mentors alike." —John Lakos, author of Large-Scale C++ Software Design "This is the sort of book I will buy a dozen copies of when it comes out so I can give it to my clients." —Eric Vought, Software Engineer "Most modern books on software development fail to cover the basics of what makes a great software developer, instead spending their time on syntax or technology where in reality the greatest leverage possible for any software team is in having talented developers who really know their craft well. An excellent book." —Pete McBreen, Independent Consultant "Since reading this book, I have implemented many of the practical suggestions and tips it contains. Across the board, they have saved my company time and money while helping me get my job done quicker! This should be a desktop reference for everyone who works with code for a living." —Jared Richardson, Senior Software Developer, iRenaissance, Inc. "I would like to see this issued to every new employee at my company...." —Chris Cleeland, Senior Software Engineer, Object Computing, Inc. "If I'm

putting together a project, it’s the authors of this book that I want. . . . And failing that I’d settle for people who’ve read their book.” —Ward Cunningham Straight from the programming trenches, The Pragmatic Programmer cuts through the increasing specialization and technicalities of modern software development to examine the core process--taking a requirement and producing working, maintainable code that delights its users. It covers topics ranging from personal responsibility and career development to architectural techniques for keeping your code flexible and easy to adapt and reuse. Read this book, and you'll learn how to Fight software rot; Avoid the trap of duplicating knowledge; Write flexible, dynamic, and adaptable code; Avoid programming by coincidence; Bullet-proof your code with contracts, assertions, and exceptions; Capture real requirements; Test ruthlessly and effectively; Delight your users; Build teams of pragmatic programmers; and Make your developments more precise with automation. Written as a series of self-contained sections and filled with entertaining anecdotes, thoughtful examples, and interesting analogies, The Pragmatic Programmer illustrates the best practices and major pitfalls of many different aspects of software development. Whether you're a new coder, an experienced programmer, or a manager responsible for software projects, use these lessons daily, and you'll quickly see improvements in personal productivity, accuracy, and job satisfaction. You'll learn skills and develop habits and attitudes that form the foundation for long-term success in your career. You'll become a Pragmatic Programmer.

Wetware-Violet Blue 2017-03-24 Cyberpunk anti-heroes face global conspiracies, misused government R&D, thugs, drugs, true love, artificial intelligence, and vengeful sexbots in this collection's heady mix of sci-fi and sex. Wetware shows how hot "high tech low life" can be when all

the glittering and frightening possibilities of cyberpunk meet the crisis point of sexual need. Seven unpredictable stories depict hackers, transhumans, androids, pop stars, armed revolutionaries, government contractors and more who discover that sex is hotter with hacked, stolen and renegade tech -- especially when it's a high-risk proposition.Some erotica writers have ideas, others have visions. Love is a side-effect of stolen, weaponized biotech in "Bishop to King's Pawn, Two" by Thomas S. Roche. In "Synthetic Skin" by Kendra Jarry, a government contractor steals secret field hardware for the sole purpose of seduction. A brainwave hacker's conquest in a club bathroom stall takes a turn in Cecilia Tan's "Rough, Trade." Lines are crossed and re-crossed when the household helper bot in Devyn X. Sands' "Never Say No" has had enough of her owner's perversions. "Sixty-Five Night" by Stephen Stavros charts a dangerous AI experiment that pushes one woman into a seedy neon ghetto for a public transhuman sexual encounter -- under the shadow of a murder conspiracy. Cyberpunk's sexuality has always been transgressive and prescient; this collection brings the genre's tradition into the current state of cyberpunk affairs. Wetware isn't a typical erotica collection, nor is it a typical sci-fi anthology. It's also a rich celebration of hacker and cyberpunk culture, within the hallmarks of this culture's rich and diverse sexualities and genders. It's a tech-savvy, philosophically-rich, erotic anthology artfully spiked with cyberpunk-themed cocktail recipes and recommendations for sexy cyberpunk films, books, and anime. Blue's introduction "Coded in Spirals and Pheromones" features story excerpts in an essay examining cyberpunk sexuality, and how our fantasies of a gilded cyberpunk future have arrived -- while at the same time, something has gone horribly wrong with the way technology was supposed to empower us. Blue explains exactly why "it is our growing sense of things gone terribly wrong that gives the stories here their power, anchored in

one of cyberpunk's most defiant agents of change: Sex." This book contains adult situations, including BDSM, domestic discipline, gender fluidity in sexual situations, backdoor and oral play, power exchange, role-play, spanking, bisexual men, and explicit scenes. The book also depicts non-monogamous relationships and sexual activity (and penetration) involving more than two individuals. Table of Contents* Introduction: Coded in Spirals and Pheromones by Violet Blue * Bishop to King's Pawn, Two by Thomas S. Roche * Liquid Exploits: The Gibson Engine * Rough, Trade by Cecilia Tan * Say Cyber One More Time: Sexy Cyberpunk Films * Dangerous Circuitry by N.T. Morley * Liquid Exploits: Tschunk! * Grinding by Janine Ashbless * Say Cyber One More Time: Adult Cyberpunk Books * Never Say No by Devyn X. Sands * Liquid Exploits: Zero Couth * Sixty-Five Night by Stephen Stavros * Say Cyber One More Time: (Sexier) Cyberpunk Anime * Synthetic Skin by Kendra Jarry

Connectome-Sebastian Seung 2012-02-07 “Accessible, witty . . . an important new researcher, philosopher and popularizer of brain science . . . on par with cosmology’s Brian Greene and the late Carl Sagan” (The Plain Dealer). One of the Wall Street Journal’s 10 Best Nonfiction Books of the Year and a Publishers Weekly “Top Ten in Science” Title Every person is unique, but science has struggled to pinpoint where, precisely, that uniqueness resides. Our genome may determine our eye color and even aspects of our character. But our friendships, failures, and passions also shape who we are. The question is: How? Sebastian Seung is at the forefront of a revolution in neuroscience. He believes that our identity lies not in our genes, but in the connections between our brain cells—our particular wiring. Seung and a dedicated group of researchers are leading the effort to map these connections, neuron by neuron, synapse by synapse. It’s a monumental effort, but if they succeed, they will

uncover the basis of personality, identity, intelligence, memory, and perhaps disorders such as autism and schizophrenia. Connectome is a mind-bending adventure story offering a daring scientific and technological vision for understanding what makes us who we are, as individuals and as a species. “This is complicated stuff, and it is a testament to Dr. Seung’s remarkable clarity of exposition that the reader is swept along with his enthusiasm, as he moves from the basics of neuroscience out to the farthest regions of the hypothetical, sketching out a spectacularly illustrated giant map of the universe of man.” —TheNew York Times “An elegant primer on what’s known about how the brain is organized and how it grows, wires its neurons, perceives its environment, modifies or repairs itself, and stores information. Seung is a clear, lively writer who chooses vivid examples.” —TheWashington Post

Cell Movements-Dennis Bray 2001 Cell Movements vividly describes how complex movements can arise from the properties and behaviors of biological molecules. This second edition is updated throughout with recent advances in the field and has a completely revised and redrawn artwork program. The text is suitable for advanced undergraduates as well as for professionals wishing for an overview of this field.

Vacuum Flowers-Michael Swanwick 2016-05-31 A cyberpunk thriller from Nebula Award winner Michael Swanwick that explores bioengineering, wetware, and the riddle of personality Rebel Elizabeth Mudlark is a recorded personality owned by corporate giant Deutsche Nakasone. When Rebel’s personality is uploaded to persona tester Eucrasia Walsh and burned into her brain, Rebel escapes the corporation and takes off across an exotically transformed solar system, hijacking Eucrasia’s body and becoming the most wanted fugitive in existence. A fast-paced technological thriller, Vacuum Flowers

allows the reader to consider the implications of bioengineering while providing an entertaining and dynamic story. Reminiscent of the innovative work of Philip K. Dick, William Gibson, and Bruce Sterling, this high-tech work of science fiction carves out a niche all its own with themes as relevant today as when it was first published.

Smarter Than You Think-Clive Thompson 2013-09-12 A revelatory and timely look at how technology boosts our cognitive abilities—making us smarter, more productive, and more creative than ever It's undeniable—technology is changing the way we think. But is it for the better? Amid a chorus of doomsayers, Clive Thompson delivers a resounding "yes." In Smarter Than You Think, Thompson shows that every technological innovation—from the written word to the printing press to the telegraph—has provoked the very same anxieties that plague us today. We panic that life will never be the same, that our attentions are eroding, that culture is being trivialized. But, as in the past, we adapt—learning to use the new and retaining what is good of the old. Smarter Than You Think embraces and extols this transformation, presenting an exciting vision of the present and the future.

Cyberpunk-Katie Hafner 1995-11-01 Profiles computer hackers who overstep ethical boundaries and break the law to penetrate society's most sensitive computer networks.

The Promise of Artificial Intelligence-Brian Cantwell Smith 2019-10-08 An argument that—despite dramatic advances in the field—artificial intelligence is nowhere near developing systems that are genuinely intelligent. In this provocative book, Brian Cantwell Smith argues that artificial intelligence is nowhere near developing systems that are genuinely intelligent. Second wave AI, machine learning, even visions of third-wave AI: none will lead to human-level intelligence and judgment, which have been honed over

millennia. Recent advances in AI may be of epochal significance, but human intelligence is of a different order than even the most powerful calculative ability enabled by new computational capacities. Smith calls this AI ability “reckoning,” and argues that it does not lead to full human judgment—dispassionate, deliberative thought grounded in ethical commitment and responsible action. Taking judgment as the ultimate goal of intelligence, Smith examines the history of AI from its first-wave origins (“good old-fashioned AI,” or GOFAI) to such celebrated second-wave approaches as machine learning, paying particular attention to recent advances that have led to excitement, anxiety, and debate. He considers each AI technology's underlying assumptions, the conceptions of intelligence targeted at each stage, and the successes achieved so far. Smith unpacks the notion of intelligence itself—what sort humans have, and what sort AI aims at. Smith worries that, impressed by AI's reckoning prowess, we will shift our expectations of human intelligence. What we should do, he argues, is learn to use AI for the reckoning tasks at which it excels while we strengthen our commitment to judgment, ethics, and the world.

The Emperor's New Mind-Roger Penrose 1999-03-04 Winner of the Wolf Prize for his contribution to our understanding of the universe, Penrose takes on the question of whether artificial intelligence will ever approach the intricacy of the human mind. 144 illustrations.

Wetware-Rudy von Bitter Rucker 1988 Stahn, a searcher is hired by Mr. Yukawa, a molecular biologist, to find Della Taze, his missing assistant, and discovers that the Boppers, moon-based robots have a plan to make their own humans

The Little Book of Big Change-Amy Johnson 2016-01-02 Little changes can

make a big, big difference! In The Little Book of Big Change, psychologist Amy Johnson shows you how to rewire your brain and overcome your bad habits—once and for all. No matter what your bad habit is, you have the power to change it. Drawing on a powerful combination of neuroscience and spirituality, this book will show you that you are not your habits. Rather, your habits and addictions are the result of simple brain wiring that is easily reversed. By learning to stop bad habits at the source, you will take charge of your habits and addictions for good. Anything done repeatedly has the potential to form neural circuitry in the brain. In this light, habits and addictions are impersonal brain wiring problems that result from taking your habitual thinking as truth, and acting on that thinking in the form of doing your habit—over and over. This book offers a number of small changes you can make in your everyday life that will help you stop your bad habit in its tracks. If you want to understand the science behind your habit, make the decision to end it, and commit to real, lasting change, this book will help you to finally take charge of your life—once and for all.

G Protein-Coupled Receptors-Sandra Siehler 2010-09-30 Provides a comprehensive overview of recent discoveries and current understandings of G protein-coupled receptors (GPCRs). Recent advances include the first mammalian non-rhodopsin GPCR structures and reconstitution of purified GPCRs into membrane discs for defined studies, novel signaling features including oligomerization, and advances in understanding the complex ligand pharmacology and physiology of GPCRs, in new assay technologies and drug targeting. The authors take time to detail the importance of the pathophysiological function and drug targeting of GPCRs, specifically β-adrenoceptors in cardiovascular and respiratory diseases, metabotropic glutamate receptors in CNS disorders, S1P receptors in the immune

system, and Wnt/Frizzled receptors in osteoporosis. This book will be invaluable to researchers and graduate students in academia and industry who are interested in the GPCR field.

Coders at Work-Peter Seibel 2009-12-21 Peter Seibel interviews 15 of the most interesting computer programmers alive today in Coders at Work, offering a companion volume to Apress's highly acclaimed best-seller Founders at Work by Jessica Livingston. As the words "at work" suggest, Peter Seibel focuses on how his interviewees tackle the day-to-day work of programming, while revealing much more, like how they became great programmers, how they recognize programming talent in others, and what kinds of problems they find most interesting. Hundreds of people have suggested names of programmers to interview on the Coders at Work web site: www.codersatwork.com. The complete list was 284 names. Having digested everyone's feedback, we selected 15 folks who've been kind enough to agree to be interviewed: Frances Allen: Pioneer in optimizing compilers, first woman to win the Turing Award (2006) and first female IBM fellow Joe Armstrong: Inventor of Erlang Joshua Bloch: Author of the Java collections framework, now at Google Bernie Cosell: One of the main software guys behind the original ARPANET IMPs and a master debugger Douglas Crockford: JSON founder, JavaScript architect at Yahoo! L. Peter Deutsch: Author of Ghostscript, implementer of Smalltalk-80 at Xerox PARC and Lisp 1.5 on PDP-1 Brendan Eich: Inventor of JavaScript, CTO of the Mozilla Corporation Brad Fitzpatrick: Writer of LiveJournal, OpenID, memcached, and Perlbal Dan Ingalls: Smalltalk implementor and designer Simon Peyton Jones: Coinventor of Haskell and lead designer of Glasgow Haskell Compiler Donald Knuth: Author of The Art of Computer Programming and creator of TeX Peter Norvig: Director of Research at Google and author of the standard text on AI Guy Steele: Coinventor of Scheme

and part of the Common Lisp Gang of Five, currently working on Fortress Ken Thompson: Inventor of UNIX Jamie Zawinski: Author of XEmacs and early Netscape/Mozilla hacker

Nine Algorithms That Changed the Future-John MacCormick 2020-09-15 Nine revolutionary algorithms that power our computers and smartphones Every day, we use our computers to perform remarkable feats. A simple web search picks out a handful of relevant needles from the world's biggest haystack. Uploading a photo to Facebook transmits millions of pieces of information over numerous error-prone network links, yet somehow a perfect copy of the photo arrives intact. Without even knowing it, we use public-key cryptography to transmit secret information like credit card numbers, and we use digital signatures to verify the identity of the websites we visit. How do our computers perform these tasks with such ease? John MacCormick answers this question in language anyone can understand, using vivid examples to explain the fundamental tricks behind nine computer algorithms that power our PCs, tablets, and smartphones.

Here Comes Everybody-Clay Shirky 2008 Evaluates the significant role being played by technological advances on the formation and experience of modern group dynamics, citing such examples as Wikipedia and MySpace to demonstrate the Internet's power in bridging geographical and cultural gaps. 40,000 first printing.

97 Things Every Programmer Should Know-Kevlin Henney 2010-02-05 Tap into the wisdom of experts to learn what every programmer should know, no matter what language you use. With the 97 short and extremely useful tips for programmers in this book, you'll expand your skills by adopting new approaches to old problems, learning appropriate best practices, and honing your craft through

sound advice. With contributions from some of the most experienced and respected practitioners in the industry--including Michael Feathers, Pete Goodliffe, Diomidis Spinellis, Cay Horstmann, Verity Stob, and many more--this book contains practical knowledge and principles that you can apply to all kinds of projects. A few of the 97 things you should know: "Code in the Language of the Domain" by Dan North "Write Tests for People" by Gerard Meszaros "Convenience Is Not an -ility" by Gregor Hohpe "Know Your IDE" by Heinz Kabutz "A Message to the Future" by Linda Rising "The Boy Scout Rule" by Robert C. Martin (Uncle Bob) "Beware the Share" by Udi Dahan

Algorithms to Live By-Brian Christian 2016-04-19 A fascinating exploration of how insights from computer algorithms can be applied to our everyday lives, helping to solve common decision-making problems and illuminate the workings of the human mind All our lives are constrained by limited space and time, limits that give rise to a particular set of problems. What should we do, or leave undone, in a day or a lifetime? How much messiness should we accept? What balance of new activities and familiar favorites is the most fulfilling? These may seem like uniquely human quandaries, but they are not: computers, too, face the same constraints, so computer scientists have been grappling with their version of such issues for decades. And the solutions they've found have much to teach us. In a dazzlingly interdisciplinary work, acclaimed author Brian Christian and cognitive scientist Tom Griffiths show how the algorithms used by computers can also untangle very human questions. They explain how to have better hunches and when to leave things to chance, how to deal with overwhelming choices and how best to connect with others. From finding a spouse to finding a parking spot, from organizing one's inbox to understanding the workings of memory, Algorithms to Live By transforms the wisdom of computer science into strategies for human living.

Algorithms Unlocked-Thomas H. Cormen 2013-03-01 For anyone who has ever wondered how computers solve problems, an engagingly written guide for nonexperts to the basics of computer algorithms. Have you ever wondered how your GPS can find the fastest way to your destination, selecting one route from seemingly countless possibilities in mere seconds? How your credit card account number is protected when you make a purchase over the Internet? The answer is algorithms. And how do these mathematical formulations translate themselves into your GPS, your laptop, or your smart phone? This book offers an engagingly written guide to the basics of computer algorithms. In Algorithms Unlocked, Thomas Cormen—coauthor of the leading college textbook on the subject—provides a general explanation, with limited mathematics, of how algorithms enable computers to solve problems. Readers will learn what computer algorithms are, how to describe them, and how to evaluate them. They will discover simple ways to search for information in a computer; methods for rearranging information in a computer into a prescribed order ("sorting"); how to solve basic problems that can be modeled in a computer with a mathematical structure called a "graph" (useful for modeling road networks, dependencies among tasks, and financial relationships); how to solve problems that ask questions about strings of characters such as DNA structures; the basic principles behind cryptography; fundamentals of data compression; and even that there are some problems that no one has figured out how to solve on a computer in a reasonable amount of time.

The Shallows: What the Internet Is Doing to Our Brains-Nicholas Carr 2020-03-03 New York Times bestseller • Finalist for the Pulitzer Prize "This is a book to shake up the world." —Ann Patchett Nicholas Carr's bestseller The Shallows has become a foundational book

in one of the most important debates of our time: As we enjoy the internet's bounties, are we sacrificing our ability to read and think deeply? This 10th-anniversary edition includes a new afterword that brings the story up to date, with a deep examination of the cognitive and behavioral effects of smartphones and social media.

Reinventing Gravity-John W. Moffat 2009-10-06 Einstein's gravity theory—his general theory of relativity—has served as the basis for a series of astonishing cosmological discoveries. But what if, nonetheless, Einstein got it wrong? Since the 1930s, physicists have noticed an alarming discrepancy between the universe as we see it and the universe that Einstein's theory of relativity predicts. There just doesn't seem to be enough stuff out there for everything to hang together. Galaxies spin so fast that, based on the amount of visible matter in them, they ought to be flung to pieces, the same way a spinning yo-yo can break its string. Cosmologists tried to solve the problem by positing dark matter—a mysterious, invisible substance that surrounds galaxies, holding the visible matter in place—and particle physicists, attempting to identify the nature of the stuff, have undertaken a slew of experiments to detect it. So far, none have. Now, John W. Moffat, a physicist at the Perimeter Institute for Theoretical Physics in Waterloo, Canada, offers a different solution to the problem. The capstone to a storybook career—one that began with a correspondence with Einstein and a conversation with Niels Bohr—Moffat's modified gravity theory, or MOG, can model the movements of the universe without recourse to dark matter, and his work challenging the constancy of the speed of light raises a stark challenge to the usual models of the first half-million years of the universe's existence. This bold new work, presenting the entirety of Moffat's hypothesis to a general readership for the first time, promises to overturn everything we thought we knew about the

origins and evolution of the universe.

New Dark Age-James Bridle 2019-05-21 "New Dark Age is among the most unsettling and illuminating books I've read about the Internet, which is to say that it is among the most unsettling and illuminating books I've read about contemporary life." - New Yorker As the world around us increases in technological complexity, our understanding of it diminishes. Underlying this trend is a single idea: the belief that our existence is understandable through computation, and more data is enough to help us build a better world. In reality, we are lost in a sea of information, increasingly divided by fundamentalism, simplistic narratives, conspiracy theories, and post-factual politics. Meanwhile, those in power use our lack of understanding to further their own interests. Despite the apparent accessibility of information, we're living in a new Dark Age. From rogue financial systems to shopping algorithms, from artificial intelligence to state secrecy, we no longer understand how our world is governed or presented to us. The media is filled with unverifiable speculation, much of it generated by anonymous software, while companies dominate their employees through surveillance and the threat of automation. In his brilliant new work, leading artist and writer James Bridle surveys the history of art, technology, and information systems, and reveals the dark clouds that gather over our dreams of the digital sublime.

Challengers, Competition, and Reelection-Jonathan S. Krasno 1997-02-01 Why do US Senators have a harder time winning re-election than members of the House of Representatives? This text argues that Senate challengers are more likely to be experienced politicians who wage intense, costly media campaigns than are those who take on House incumbents.

Neurodiversity in the

Classroom-Thomas Armstrong 2012 Just as we celebrate diversity in nature and cultures, so too do we need to honor the diversity of brains among our students who learn, think, and behave differently. In this book the author argues that we should embrace the strengths of such neurodiverse students to help them and their neurotypical peers thrive in school and beyond.

Dreaming in Code-Scott Rosenberg 2008 A noted journalist chronicles three years in the lives of a team of maverick software developers, led by Lotus 1-2-3 creator Mitch Kapor, intent on creating a revolutionary personal information manager to challenge Microsoft Outlook. Reprint. 30,000 first printing.

Live Robots-Rudy von Bitter Rucker 1994 Two complete novels--Software, in which robots offer elderly hippie Cobb Anderson immortality, and Wetware, in which the meatbop, a new life form emerges--enter the world of cyberpunk. Reprint.

In Search of Time-Dan Falk 2009-10-20 An enjoyable and compelling ride through one of life's most fascinating enigmas "What, then, is time? If no one ask of me, I know," St. Augustine of Hippo lamented. "But if I wish to explain to him who asks, I know not." Who wouldn't sympathize with Augustine's dilemma? Time is at once intimately familiar and yet deeply mysterious. It is thoroughly intangible: We say it flows like a river — yet when we try to examine that flow, the river seems reduced to a mirage. No wonder philosophers, poets, and scientists have grappled with the idea of time for centuries. The enigma of time has also captivated science journalist Dan Falk, who sets off on an intellectual journey In Search of Time. The quest takes him from the ancient observatories of stone-age Ireland and England to the atomic clocks of the U.S. Naval Observatory; from the layers of geological "deep time" in an Arizona canyon to

Albert Einstein’s apartment in Switzerland. Along the way he talks to scientists and scholars from California to New York, from Toronto to Oxford. He speaks with anthropologists and historians about our deep desire to track time’s cycles; he talks to psychologists and neuroscientists about the mysteries of memory; he quizzes astronomers about the beginning and end of time. Not to mention our latest theories about time travel — and the paradoxes it seems to entail. We meet great minds from Aristotle to Kant, from Newton to Einstein — and we hear from today’s most profound thinkers: Roger Penrose, Paul Davies, Julian Barbour, David Deutsch, Lee Smolin, and many more. As usual, Dan Falk’s style combines exhaustive research with a lively, accessible, and often humorous style, making In Search of Time a delightful tour through a most curious dimension.

Alone in the Universe-John Gribbin 2011-12-01 The acclaimed author of In Search of Schr&#65533;dinger's Cat searches for life on other planets Are we alone in the universe? Surely amidst the immensity of the cosmos there must be other intelligent life out there. Don't be so sure, says John Gribbin, one of today's best popular science writers. In this fascinating and intriguing new book, Gribbin argues that the very existence of intelligent life anywhere in the cosmos is, from an astrophysicist's point of view, a miracle. So why is there life on Earth and (seemingly) nowhere else? What happened to make this planet special? Taking us back some 600 million years, Gribbin lets you experience the series of unique cosmic events that were responsible for our unique form of life within the Milky Way Galaxy. Written by one of our foremost popular science writers, author of the bestselling In Search of Schr&#65533;dinger's Cat Offers a bold answer to the eternal question, ""Are we alone in the universe?"" Explores how the impact of a ""supercomet"" with Venus 600 million years ago created our moon, and along with it,

the perfect conditions for life on Earth From one of our most talented science writers, this book is a daring, fascinating exploration into the dawning of the universe, cosmic collisions and their consequences, and the uniqueness of life on Earth.

The Productive Programmer-Neal Ford 2008-07-03 Anyone who develops software for a living needs a proven way to produce it better, faster, and cheaper. The Productive Programmer offers critical timesaving and productivity tools that you can adopt right away, no matter what platform you use. Master developer Neal Ford not only offers advice on the mechanics of productivity-how to work smarter, spurn interruptions, get the most out your computer, and avoid repetition-he also details valuable practices that will help you elude common traps, improve your code, and become more valuable to your team. You'll learn to: Write the test before you write the code Manage the lifecycle of your objects fastidiously Build only what you need now, not what you might need later Apply ancient philosophies to software development Question authority, rather than blindly adhere to standards Make hard things easier and impossible things possible through meta-programming Be sure all code within a method is at the same level of abstraction Pick the right editor and assemble the best tools for the job This isn't theory, but the fruits of Ford's real-world experience as an Application Architect at the global IT consultancy ThoughtWorks. Whether you're a beginner or a pro with years of experience, you'll improve your work and your career with the simple and straightforward principles in The Productive Programmer.

Introduction to Evolutionary Computing-Agoston E. Eiben 2013-03-14 The first complete overview of evolutionary computing, the collective name for a range of problem-solving techniques based on principles of biological evolution, such as natural selection and genetic

inheritance. The text is aimed directly at lecturers and graduate and undergraduate students. It is also meant for those who wish to apply evolutionary computing to a particular problem or within a given application area. The book contains quick-reference information on the current state-of-the-art in a wide range of related topics, so it is of interest not just to evolutionary computing specialists but to researchers working in other fields.