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Creativity, Inc. Ed Catmull 2014-04-08 From a co-founder of Pixar Animation Studios—the Academy Award-winning studio behind Coco, Inside Out, and Toy Story—comes an incisive book about creativity in business and leadership for readers of Daniel Pink, Tom Peters, and Chip and Dan Heath. NEW YORK TIMES BESTSELLER | NAMED ONE OF THE BEST BOOKS OF THE YEAR BY The Huffington Post • Financial Times • Success • Inc. • Library Journal Creativity, Inc. is a manual for anyone who strives for originality and the first-ever, all-access trip into the nerve center of Pixar Animation—into the meetings, postmortems, and “Braintrust” sessions where some of the most successful films in history are made. It is, at heart, a book about creativity—but it is also, as Pixar co-founder and president Ed Catmull writes, “an expression of the ideas that I believe make the best in us possible.” For nearly twenty years, Pixar has dominated the world of animation, producing such beloved films as the Toy Story trilogy, Monsters, Inc., Finding Nemo, The Incredibles, Up, WALL-E, and Inside Out, which have gone on to set box-office records and garner thirty Academy Awards. The joyousness of the storytelling, the inventive plots, the emotional authenticity: In some ways, Pixar movies are an object lesson in what creativity really is. Here, in this book, Catmull reveals the ideals and techniques that have made Pixar so widely admired—and so profitable. As a young man, Ed Catmull had a dream: to make the first computer-animated movie. He nurtured that dream as a Ph.D. student at the University of Utah, where many computer science pioneers got their start, and then forged a partnership with George Lucas that led, indirectly, to his co-founding Pixar in 1986. Nine years later, Toy Story was released, changing animation forever. The essential ingredient in that movie’s success—and in the thirteen movies that followed—was the unique environment that Catmull and his colleagues built at Pixar, based on leadership and management philosophies that protect the creative process and defy convention, such as: • Give a good idea to a mediocre team, and they will screw it up. But give a mediocre idea to a great team, and they will either fix it or come up with something better. • If you don’t strive to uncover what is unseen and understand its nature, you will be ill prepared to lead. • It’s not the manager’s job to prevent risks. It’s the manager’s job to make it safe for others to take them. • The cost of preventing errors is often far greater than the cost of fixing them. • A company’s communication structure should not mirror its organizational structure. Everybody should be able to talk to anybody.

Informatics, Networking and Intelligent Computing Jiaxing Zhang 2015-05-06 This proceedings volume contains selected papers presented at the 2014 International Conference on Informatics, Networking and Intelligent Computing, held in Shenzhen, China. Contributions cover the latest developments and advances in the field of Informatics, Networking and Intelligent Computing.

Deep Learning In Biology And Medicine Davide Bacciu 2022-01-17 Biology, medicine and biochemistry have become data-centric fields for which Deep Learning methods are delivering groundbreaking results. Addressing high impact challenges, Deep Learning in Biology and Medicine provides an accessible and organic collection of Deep Learning essays on bioinformatics and medicine. It caters for a wide readership, ranging from machine learning practitioners and data scientists seeking methodological knowledge to address biomedical applications, to life science specialists in search of a gentle reference for advanced data analytics. With contributions from internationally renowned experts, the book covers foundational methodologies in a wide spectrum of life sciences applications, including electronic health record processing, diagnostic imaging, text processing, as well as omics-data processing. This survey of consolidated problems is complemented by a selection of advanced applications, including cheminformatics and biomedical interaction network analysis. A modern and mindful approach to the use of data-driven methodologies in the life sciences also requires careful consideration of the associated societal, ethical, legal and transparency challenges, which are covered in the concluding chapters of this book.

Autonomous Horizons Greg Zacharias 2019-04-05 Dr. Greg Zacharias, former Chief Scientist of the United States Air Force (2015-18), explores next steps in autonomous systems (AS) development, fielding, and training. Rapid advances in AS development and artificial intelligence (AI) research will change how we think about machines, whether they are individual vehicle platforms or networked enterprises. The payoff will be considerable, affording the US military significant protection for aviators, greater effectiveness in employment, and unlimited opportunities for novel and disruptive concepts of operations. Autonomous Horizons: The Way Forward identifies issues and makes recommendations for the Air Force to take full advantage of this transformational technology.

The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies Erik Brynjolfsson 2014-01-20 A pair of technology experts describe how humans will have to keep pace with machines in order to become prosperous in the future and identify strategies and policies for business and individuals to use to combine digital processing power with human ingenuity.

Image and Video Compression Standards Vasudev Baskaran 1997-06-30 New to the Second Edition: offers the latest developments in standards activities (JPEG-LS, MPEG-4, MPEG-7, and H.263) provides a comprehensive review of recent activities on multimedia enhanced processors, multimedia coprocessors, and dedicated processors, including examples from industry. Image and Video Compression Standards: Algorithms and Architectures, Second Edition presents an introduction to the algorithms and architectures that form the underpinnings of the image and video compressions standards, including JPEG (compression of still-images), H.261 and H.263 (video teleconferencing), and MPEG-1 and MPEG-2 (video storage and broadcasting). The next generation of audiovisual coding standards, such as MPEG-4 and MPEG-7, are also briefly described. In addition, the book covers the MPEG and Dolby AC-3 audio coding standards and emerging techniques for image and video compression, such as those based on wavelets and vector quantization. Image and Video Compression Standards: Algorithms and Architectures, Second Edition emphasizes the foundations of these standards; namely, techniques such as predictive coding, transform-based coding such as the discrete cosine transform (DCT), motion estimation, motion compensation, and entropy coding, as well as how they are applied in the standards. The implementation details of each standard are avoided; however, the book provides all the material necessary to understand the workings of each of the compression standards, including information that can be used by the reader to evaluate the efficiency of various software and hardware implementations conforming to these standards. Particular emphasis is placed on those algorithms and architectures that have been found to be useful in practical software or hardware implementations. Image and Video Compression Standards: Algorithms and Architectures, emSecond Edition uniquely covers all major standards (JPEG, MPEG-1, MPEG-2, MPEG-4, H.261, H.263) in a simple and tutorial manner, while fully addressing the architectural considerations involved when implementing these standards. As such, it serves as a valuable reference for the graduate student, researcher or engineer. The book is also used frequently as a text for courses on the subject, in both academic and professional settings.

Advances in Computer, Communication, Control and Automation Yanwen Wu 2011-11-20 The volume includes a set of selected papers extended and revised from the 2011 International Conference on Computer, Communication, Control and Automation (3CA 2011). 2011 International Conference on Computer, Communication, Control and Automation (3CA 2011) has been held in Zhuhai, China, November 19-20, 2011. This volume topics covered include signal and Image processing, speech and audio Processing, video processing and analysis, artificial intelligence, computing and intelligent systems, machine learning, sensor and neural networks, knowledge discovery and data mining, fuzzy mathematics and Applications, knowledge-based systems, hybrid systems modeling and design, risk analysis and management, system modeling and simulation. We hope that researchers, graduate students and other interested readers benefit scientifically from the proceedings and also find it stimulating in the process.

The Book of R Tilman M. Davies 2016-07-16 The Book of R is a comprehensive, beginner-friendly guide to R, the world’s most popular programming language for statistical analysis. Even if you have no programming experience and little more than a grounding in the basics of mathematics, you’ll find everything you need to begin using R effectively for statistical analysis. You’ll start with the basics, like how to handle data and write simple programs,

before moving on to more advanced topics, like producing statistical summaries of your data and performing statistical tests and modeling. You’ll even learn how to create impressive data visualizations with R’s basic graphics tools and contributed packages, like ggplot2 and ggvis, as well as interactive 3D visualizations using the rgl package. Dozens of hands-on exercises (with downloadable solutions) take you from theory to practice, as you learn: -The fundamentals of programming in R, including how to write data frames, create functions, and use variables, statements, and loops -Statistical concepts like exploratory data analysis, probabilities, hypothesis tests, and regression modeling, and how to execute them in R -How to access R’s thousands of functions, libraries, and data sets -How to draw valid and useful conclusions from your data -How to create publication-quality graphics of your results Combining detailed explanations with real-world examples and exercises, this book will provide you with a solid understanding of both statistics and the depth of R’s functionality. Make The Book of R your doorway into the growing world of data analysis.

Computer Vision - ACCV 2014 Workshops C. V. Jawahar 2015-04-11 The three-volume set, consisting of LNCS 9008, 9009, and 9010, contains carefully reviewed and selected papers presented at 15 workshops held in conjunction with the 12th Asian Conference on Computer Vision, ACCV 2014, in Singapore, in November 2014. The 153 full papers presented were selected from numerous submissions. LNCS 9008 contains the papers selected for the Workshop on Human Gait and Action Analysis in the Wild, the Second International Workshop on Big Data in 3D Computer Vision, the Workshop on Deep Learning on Visual Data, the Workshop on Scene Understanding for Autonomous Systems, and the Workshop on Robust Local Descriptors for Computer Vision. LNCS 9009 contains the papers selected for the Workshop on Emerging Topics on Image Restoration and Enhancement, the First International Workshop on Robust Reading, the Second Workshop on User-Centred Computer Vision, the International Workshop on Video Segmentation in Computer Vision, the Workshop: My Car Has Eyes: Intelligent Vehicle with Vision Technology, the Third Workshop on E-Heritage, and the Workshop on Computer Vision for Affective Computing. LNCS 9010 contains the papers selected for the Workshop on Feature and Similarity for Computer Vision, the Third International Workshop on Intelligent Mobile and Egocentric Vision, and the Workshop on Human Identification for Surveillance.

Computer Vision -- ACCV 2014 Daniel Cremers 2015-04-15 The five-volume set LNCS 9003--9007 constitutes the thoroughly refereed post-conference proceedings of the 12th Asian Conference on Computer Vision, ACCV 2014, held in Singapore, Singapore, in November 2014. The total of 227 contributions presented in these volumes was carefully reviewed and selected from 814 submissions. The papers are organized in topical sections on recognition; 3D vision; low-level vision and features; segmentation; face and gesture, tracking; stereo, physics, video and events; and poster sessions 1-3.

Raspberry Pi User Guide Eben Upton 2016-08-29 Learn the Raspberry Pi 3 from the experts! Raspberry Pi User Guide, 4th Edition is the "unofficial official" guide to everything Raspberry Pi 3. Written by the Pi's creator and a leading Pi guru, this book goes straight to the source to bring you the ultimate Rasperry Pi 3 manual. This new fourth edition has been updated to cover the Raspberry Pi 3 board and software, with detailed discussion on its wide array of configurations, languages, and applications. You'll learn how to take full advantage of the mighty Pi's full capabilities, and then expand those capabilities even more with add-on technologies. You'll write productivity and multimedia programs, and learn flexible programming languages that allow you to shape your Raspberry Pi into whatever you want it to be. If you're ready to jump right in, this book gets you started with clear, step-by-step instruction from software installation to system customization. The Raspberry Pi's tremendous popularity has spawned an entire industry of add-ons, parts, hacks, ideas, and inventions. The movement is growing, and pushing the boundaries of possibility along with it—are you ready to be a part of it? This book is your ideal companion for claiming your piece of the Pi. Get all set up with software, and connect to other devices Understand Linux System Admin nomenclature and conventions Write your own programs using Python and Scratch Extend the Pi's capabilities with add-ons like Wi-Fi dongles, a touch screen, and more The credit-card sized Rasperry Pi has become a global phenomenon. Created by the Raspberry Pi Foundation to get kids interested in programming, this tiny computer kick-started a movement of tinkerers, thinkers, experimenters, and inventors. Where will your Raspberry Pi 3 take you? The Raspberry Pi User Guide, 3rd Edition is your ultimate roadmap to discovery.

Digital Forensics and Watermarking Xianfeng Zhao 2022-01-20 This volume constitutes the proceedings of the 20th International Workshop on Digital Forensics and Watermarking, IWDW 2021, held in Beijing, China, in November 2021. The 18 full papers in this volume were carefully reviewed and selected from 32 submissions. The are categorized in the following topical headings: Forensics and Security Analysis; Watermarking and Steganology.

Patterns, Predictions, and Actions: Foundations of Machine Learning Moritz Hardt 2022-08-23 An authoritative, up-to-date graduate textbook on machine learning that highlights its historical context and societal impacts Patterns, Predictions, and Actions introduces graduate students to the essentials of machine learning while offering invaluable perspective on its history and social implications. Beginning with the foundations of decision making, Moritz Hardt and Benjamin Recht explain how representation, optimization, and generalization are the constituents of supervised learning. They go on to provide self-contained discussions of causality, the practice of causal inference, sequential decision making, and reinforcement learning, equipping readers with the concepts and tools they need to assess the consequences that may arise from acting on statistical decisions. Provides a modern introduction to machine learning, showing how data patterns support predictions and consequential actions Pays special attention to societal impacts and fairness in decision making Traces the development of machine learning from its origins to today Features a novel chapter on machine learning benchmarks and datasets Invites readers from all backgrounds, requiring some experience with probability, calculus, and linear algebra An essential textbook for students and a guide for researchers

Dive Into Deep Learning Joanne Quinn 2019-07-15 The leading experts in system change and learning, with their school-based partners around the world, have created this essential companion to their runaway best-seller, Deep Learning: Engage the World Change the World. This hands-on guide provides a roadmap for building capacity in teachers, schools, districts, and systems to design deep learning, measure progress, and assess conditions needed to activate and sustain innovation. Dive Into Deep Learning: Tools for Engagement is rich with resources educators need to construct and drive meaningful deep learning experiences in order to develop the kind of mindset and know-how that is crucial to becoming a problem-solving change agent in our global society. Designed in full color, this easy-to-use guide is loaded with tools, tips, protocols, and real-world examples. It includes: • A framework for deep learning that provides a pathway to develop the six global competencies needed to flourish in a complex world — character, citizenship, collaboration, communication, creativity, and critical thinking. • Learning progressions to help educators analyze student work and measure progress. • Learning design rubrics, templates and examples for incorporating the four elements of learning design: learning partnerships, pedagogical practices, learning environments, and leveraging digital. • Conditions rubrics, teacher self-assessment tools, and planning guides to help educators build, mobilize, and sustain deep learning in schools and districts. Learn about, improve, and expand your world of learning. Put the joy back into learning for students and adults alike. Dive into deep learning to create learning experiences that give purpose, unleash student potential, and transform not only learning, but life itself.

Cognitive Systems and Signal Processing Fuchun Sun 2017-07-07 This book constitutes the refereed proceedings of the Third International Conference on Cognitive Systems and Signal Processing, ICCSIP2016, held in Beijing, China, in December 2016. The 59 revised full papers presented were carefully reviewed and selected from 171 submissions. The papers are organized in topical sections on Control and Decision; Image and Video; Machine Learning; Robotics; Cognitive System; Cognitive Signal Processing.

Surfing Uncertainty Andy Clark 2016 This title brings together work on embodiment, action, and the predictive mind. At the core is the vision of human minds as prediction machines - devices that constantly try to stay one step ahead of the breaking waves of sensory stimulation, by actively predicting the

incoming flow. In every situation we encounter, that complex prediction machinery is already buzzing, proactively trying to anticipate the sensory barrage. The book shows in detail how this strange but potent strategy of self-anticipation ushers perception, understanding, and imagination simultaneously onto the cognitive stage.

Digital TV and Wireless Multimedia Communication Xiaokang Yang 2017-03-11 This book constitutes the refereed proceedings of the 13th International Forum of Digital TV and Wireless Multimedia Communication, IFTC 2016, held in Shanghai, China, in November 2016. The 38 revised full papers presented were carefully reviewed and selected from 102 submissions. The papers are organized in topical sections on image processing; audio processing; image and video compression; telecommunications.

Multi-Sensor Information Fusion Xue-Bo Jin 2020-03-23 This book includes papers from the section “Multisensor Information Fusion”, from Sensors between 2018 to 2019. It focuses on the latest research results of current multi-sensor fusion technologies and represents the latest research trends, including traditional information fusion technologies, estimation and filtering, and the latest research, artificial intelligence involving deep learning. **Medical Imaging Systems** Andreas Maier 2018-08-02 This open access book gives a complete and comprehensive introduction to the fields of medical imaging systems, as designed for a broad range of applications. The authors of the book first explain the foundations of system theory and image processing, before highlighting several modalities in a dedicated chapter. The initial focus is on modalities that are closely related to traditional camera systems such as endoscopy and microscopy. This is followed by more complex image formation processes: magnetic resonance imaging, X-ray projection imaging, computed tomography, X-ray phase-contrast imaging, nuclear imaging, ultrasound, and optical coherence tomography.

Computer Vision - ACCV 2020 Hiroshi Ishikawa 2021-03-29 The six volume set of LNCS 12622-12627 constitutes the proceedings of the 15th Asian Conference on Computer Vision, ACCV 2020, held in Kyoto, Japan, in November/ December 2020.* The total of 254 contributions was carefully reviewed and selected from 768 submissions during two rounds of reviewing and improvement. The papers focus on the following topics: Part I: 3D computer vision; segmentation and grouping Part II: low-level vision, image processing; motion and tracking Part III: recognition and detection; optimization, statistical methods, and learning; robot vision Part IV: deep learning for computer vision, generative models for computer vision Part V: face, pose, action, and gesture; video analysis and event recognition; biomedical image analysis Part VI: applications of computer vision; vision for X; datasets and performance analysis *The conference was held virtually.

High Efficiency Video Coding (HEVC) Vivienne Sze 2014-08-23 This book provides developers, engineers, researchers and students with detailed knowledge about the High Efficiency Video Coding (HEVC) standard. HEVC is the successor to the widely successful H.264/AVC video compression standard, and it provides around twice as much compression as H.264/AVC for the same level of quality. The applications for HEVC will not only cover the space of the well-known current uses and capabilities of digital video - they will also include the deployment of new services and the delivery of enhanced video quality, such as ultra-high-definition television (UHDTV) and video with higher dynamic range, wider range of representable color, and greater representation precision than what is typically found today. HEVC is the next major generation of video coding design - a flexible, reliable and robust solution that will support the next decade of video applications and ease the burden of video on world-wide network traffic. This book provides a detailed explanation of the various parts of the standard, insight into how it was developed, and in-depth discussion of algorithms and architectures for its implementation.

Strengthening Forensic Science in the United States National Research Council 2009-07-29 Scores of talented and dedicated people serve the forensic science community, performing vitally important work. However, they are often constrained by lack of adequate resources, sound policies, and national support. It is clear that change and advancements, both systematic and scientific, are needed in a number of forensic science disciplines to ensure the reliability of work, establish enforceable standards, and promote best practices with consistent application. Strengthening Forensic Science in the United States: A Path Forward provides a detailed plan for addressing these needs and suggests the creation of a new government entity, the National Institute of Forensic Science, to establish and enforce standards within the forensic science community. The benefits of improving and regulating the forensic science disciplines are clear: assisting law enforcement officials, enhancing homeland security, and reducing the risk of wrongful conviction and exoneration. Strengthening Forensic Science in the United States gives a full account of what is needed to advance the forensic science disciplines, including upgrading of systems and organizational structures, better training, widespread adoption of uniform and enforceable best practices, and mandatory certification and accreditation programs. While this book provides an essential call-to-action for congress and policy makers, it also serves as a vital tool for law enforcement agencies, criminal prosecutors and attorneys, and forensic science educators.

Resources for Optimal Care of the Injured Patient American College of Surgeons. Committee on Trauma 1990

Investigating Iwo Breanne Robertson 2019 "Investigating Iwo encourages us to explore the connection between American visual culture and World War II, particularly how the image inspired Marines, servicemembers, and civilians to carry on with the war and to remember those who made the ultimate sacrifice to ensure victory over the Axis Powers. Chapters shed light on the processes through which history becomes memory and gains meaning over time. The contributors ask only that we be willing to take a closer look, to remain open to new perspectives that can deepen our understanding of familiar topics related to the flag raising, including Rosenthal's famous picture, that continue to mean so much to us today"--

Web Development and Design Foundations with Html5 Terry Felke-Morris 2016-02-12 For courses in web development and design. A Comprehensive, Well-Rounded Intro to Web Development and Design Updated and expanded in this Eighth Edition, Web Development and Design Foundations with HTML5 presents a comprehensive introduction to the development of effective web sites. Intended for beginning web developers, the text relates both the necessary hard skills (such as HTML5, CSS, and JavaScript) and soft skills (design, e-commerce, and promotion strategies) considered fundamental to contemporary web development. An emphasis on hands-on practice guides readers, as the text introduces topics ranging from configuration and layout to accessibility techniques and ethical considerations. The Eighth Edition contains updated coverage of HTML5 and CSS, expanded coverage of designing for mobile devices, and more.

Digital Terrain Modeling Zhilin Li 2004-11-29 Written by experts, Digital Terrain Modeling: Principles and Methodology provides comprehensive coverage of recent developments in the field. The topics include terrain analysis, sampling strategy, acquisition methodology, surface modeling principles, triangulation algorithms, interpolation techniques, on-line and off-line quality control in data a

Digital Elevation Model Technologies and Applications David Francis Maune 2007 This DE Users Manual is designed to help potential users of digital elevation data understand and articulate their requirements in a way that their expectations are satisfied. if you have a dream that DEM's can help you do a better job, or you need to know more about DEM technologies and applications then this manual is for you.

Nineteen Eighty-Four George Orwell 2021-01-09 "Nineteen Eighty-Four: A Novel", often published as "1984", is a dystopian social science fiction novel by English novelist George Orwell. It was published on 8 June 1949 by Secker & Warburg as Orwell's ninth and final book completed in his lifetime. Thematically, "Nineteen Eighty-Four" centres on the consequences of totalitarianism, mass surveillance, and repressive regimentation of persons and behaviours within society. Orwell, himself a democratic socialist, modelled the authoritarian government in the novel after Stalinist Russia. More broadly, the novel examines the role of truth and facts within politics and the ways in which they are manipulated. The story takes place in an imagined future, the year 1984, when much of the world has fallen victim to perpetual war, omnipresent government surveillance, historical negationism, and propaganda. Great Britain, known as Airstrip One, has become a province of a totalitarian superstate named Oceania that is ruled by the Party who employ the Thought Police to persecute individuality and independent thinking. Big Brother, the leader of the Party, enjoys an intense cult of personality despite the fact that he may not even exist. The protagonist, Winston Smith, is a diligent and skillful rank-and-file worker and Outer Party member who secretly hates the Party and dreams of rebellion. He enters into a forbidden relationship with a colleague, Julia, and starts to remember what life was like before the Party came to power.

Advanced Control Foundation Terrence Blevins 2012-09-01 In this book, the authors address the concepts and terminology that are needed to apply advanced control techniques in the process industry. The book is written for the process or control engineer that is familiar with traditional control but has little or no experience in designing, installing, commissioning and maintaining advanced control applications. Each chapter of the book is structured to allow

a person to quickly understand the technology and how it is applied. Application examples are used to show what is required to address an application. Also, a section of each chapter is dedicated to a more in-depth discussion of the technology for the reader that is interested in understanding the mathematical basis for the technology. A workshop is provided at the end of each chapter that explores the technology. The reader may view the workshop solution by going to the web site that accompanies the book. The book provides comprehensive coverage of the major advanced control techniques that are most commonly used in the process industry. This includes tools for monitoring control system performance, on-demand and adaptive tuning techniques, model predictive control, LP optimization, data analytics for batch and continuous processes, fuzzy logic control, neural networks and advancements in PID to use with wireless measurements. Since many readers may work with an existing DCS that does not support advanced control, a chapter of the book is dedicated to tools and techniques that the authors have found useful in integrating advanced control tools into an existing control system. Also, one chapter of the book addresses how dynamic process simulations may be easily created in a DCS to support checkout and operator training on the use of advanced control. **Surveillance and Reconnaissance Imaging Systems** Jon C. Leachtenauer 2001 Here's an up-to-date, comprehensive review of surveillance and reconnaissance (S & R) imaging system modeling and performance prediction. This new, one-of-a-kind resource helps you predict the information potential of new surveillance system designs, compare and select from alternative measures of information extraction, relate the performance of tactical acquisition sensors and surveillance sensors, and understand the relative importance of each element of the image chain on S& R system performance. It provides you with system descriptions and characteristics, S& R modeling history, and performance modeling details.

Neural Information Processing Haiqin Yang 2020-11-18 The two-volume set CCIS 1332 and 1333 constitutes thoroughly refereed contributions presented at the 27th International Conference on Neural Information Processing, ICONIP 2020, held in Bangkok, Thailand, in November 2020.* For ICONIP 2020 a total of 378 papers was carefully reviewed and selected for publication out of 618 submissions. The 191 papers included in this volume set were organized in topical sections as follows: data mining; healthcare analytics-improving healthcare outcomes using big data analytics; human activity recognition; image processing and computer vision; natural language processing; recommender systems; the 13th international workshop on artificial intelligence and cybersecurity; computational intelligence; machine learning; neural network models; robotics and control; and time series analysis. * The conference was held virtually due to the COVID-19 pandemic.

Children of the Dream Rucker C. Johnson 2019-04-16 An acclaimed economist reveals that school integration efforts in the 1970s and 1980s were overwhelmingly successful -- and argues that we must renew our commitment to integration for the sake of all Americans We are frequently told that school integration was a social experiment doomed from the start. But as Rucker C. Johnson demonstrates in *Children of the Dream*, it was, in fact, a spectacular achievement. Drawing on longitudinal studies going back to the 1960s, he shows that students who attended integrated and well-funded schools were more successful in life than those who did not -- and this held true for children of all races. Yet as a society we have given up on integration. Since the high point of integration in 1988, we have regressed and segregation again prevails. Contending that integrated, well-funded schools are the primary engine of social mobility, *Children of the Dream* offers a radical new take on social policy. It is essential reading in our divided times.

Google Earth Engine Applications Lalit Kumar 2019-04-23 In a rapidly changing world, there is an ever-increasing need to monitor the Earth’s resources and manage it sustainably for future generations. Earth observation from satellites is critical to provide information required for informed and timely decision making in this regard. Satellite-based earth observation has advanced rapidly over the last 50 years, and there is a plethora of satellite sensors imaging the Earth at finer spatial and spectral resolutions as well as high temporal resolutions. The amount of data available for any single location on the Earth is now at the petabyte-scale. An ever-increasing capacity and computing power is needed to handle such large datasets. The Google Earth Engine (GEE) is a cloud-based computing platform that was established by Google to support such data processing. This facility allows for the storage, processing and analysis of spatial data using centralized high-power computing resources, allowing scientists, researchers, hobbyists and anyone else interested in such fields to mine this data and understand the changes occurring on the Earth’s surface. This book presents research that applies the Google Earth Engine in mining, storing, retrieving and processing spatial data for a variety of applications that include vegetation monitoring, cropland mapping, ecosystem assessment, and gross primary productivity, among others. Datasets used range from coarse spatial resolution data, such as MODIS, to medium resolution datasets (Worldview -2), and the studies cover the entire globe at varying spatial and temporal scales.

Pattern Recognition Tieniu Tan 2016-10-21 The two-volume set CCIS 662 and CCIS 663 constitutes the refereed proceedings of the 7th Chinese Conference on Pattern Recognition, CCPR 2016, held in Chengdu, China, in November 2016.The 121 revised papers presented in two volumes were carefully reviewed and selected from 199 submissions. The papers are organized in topical sections on robotics; computer vision; basic theory of pattern recognition; image and video processing; speech and language; emotion recognition.

Control Loop Foundation Terrence Blevins 2011 In this in-depth book, the authors address the concepts and terminology that are needed to work in the field of process control. The material is presented in a straightforward manner that is independent of the control system manufacturer. It is assumed that the reader may not have worked in a process plant environment and may be unfamiliar with the field devices and control systems. Much of the material on the practical aspects of control design and process applications is based on the authors personal experience gained in working with process control systems. Thus, the book is written to act as a guide for engineers, managers, technicians, and others that are new to process control or experienced control engineers who are unfamiliar with multi-loop control techniques. After the traditional single-loop and multi-loop techniques that are most often used in industry are covered, a brief introduction to advanced control techniques is provided. Whether the reader of this book is working as a process control engineer, working in a control group or working in an instrument department, the information will set the solid foundation needed to understand and work with existing control systems or to design new control applications. At various points in the chapters on process characterization and control design, the reader has an opportunity to apply what was learned using web-based workshops. The only items required to access these workshops are a high-speed Internet connection and a web browser. Dynamic process simulations are built into the workshops to give the reader a realistic "hands-on" experience. Also, one chapter of the book is dedicated to techniques that may be used to create process simulations using tools that are commonly available within most distributed control systems. At various points in the chapters on process characterization and control design, the reader has an opportunity to apply what was learned using web-based workshops. The only items required to access these workshops are a high-speed Internet connection and a web browser. Dynamic process simulations are built into the workshops to give the reader a realistic "hands-on" experience. Also, one chapter of the book is dedicated to techniques that may be used to create process simulations using tools that are commonly available within most distributed control systems. As control techniques are introduced, simple process examples are used to illustrate how these techniques are applied in industry. The last chapter of the book, on process applications, contains several more complex examples from industry that illustrate how basic control techniques may be combined to meet a variety of application requirements. As control techniques are introduced, simple process examples are used to illustrate how these techniques are applied in industry. The last chapter of the book, on process applications, contains several more complex examples from industry that illustrate how basic control techniques may be combined to meet a variety of application requirements.

The Monarch Butterfly Karen Suzanne Oberhauser 2004 Synthesizes current scientific knowledge on the life cycle, behavior, spectacular migration, and conservation of this charismatic insect.

Digital Forensics and Watermarking Hongxia Wang 2020-03-25 The 22 full papers and 12 shorts papers presented in this volume were carefully reviewed and selected from 70 submissions. The contributions are covering the following topics: deep learning for multimedia security; digital forensics and anti-forensics; digital watermarking; information hiding; steganography and steganalysis; authentication and security.

Neural Networks Simon Haykin 1994 Learning process - Correlation matrix memory - The perceptron - Least-mean-square algorithm - Multilayer perceptrons - Radial-basic function networks - Recurrent networks rooted in statistical physics - Self-organizing systems I : hebbian learning - Self-organizing systems II : competitive learning - Self-organizing systems III : information-theoretic models - Modular networks - Temporal processing - Neurodynamics - VLSI implementations of neural networks.

Avoiding the Blind Alley Asia Society Policy Institute 2014-10-22

Pattern Recognition and Computer Vision Zhouchen Lin 2019-10-31 The three-volume set LNCS 11857, 11858, and 11859 constitutes the refereed

proceedings of the Second Chinese Conference on Pattern Recognition and Computer Vision, PRCV 2019, held in Xi'an, China, in November 2019. The 165

revised full papers presented were carefully reviewed and selected from 412 submissions. The papers have been organized in the following topical sections: Part I: Object Detection, Tracking and Recognition, Part II: Image/Video Processing and Analysis, Part III: Data Analysis and Optimization.