Advanced Biophotonics

Students and researchers looking for a comprehensive textbook on magnetism, magnetic materials and related applications will find in this book an excellent explanation of the field. Chapters progress logically from the physics of magnetism, to magnetic phenomena in materials, to size and dimensionality effects, to applications. Beginning with a description of magnetic phenomena and measurements on a macroscopic scale, the book then presents discussions of intrinsic and phenomenological concepts of magnetism such as electronic magnetic moments and classical, quantum, and band theories of magnetic behavior. It then covers ordered magnetic materials (emphasizing their structure-sensitive properties) and magnetic phenomena, including magnetic anisotropy, magnetostriction, and magnetic domain structures and dynamics. What follows is a comprehensive description of imaging methods to resolve magnetic microstructures (domains) along with an introduction to micromagnetic modeling. The book then explores in detail size (small particles) and dimensionality (surface and interfaces) effects — the underpinnings of nanoscience and nanotechnology that are brought into sharp focus by magnetism. The hallmark of modern science is its interdisciplinarity, and the second half of the book offers interdisciplinary discussions of information technology, magnetoelectronics and the future of biomedicine via recent developments in magnetism. Modern materials with tailored properties require careful synthetic and characterization strategies. The book also includes relevant details of the chemical synthesis of small particles and the physical deposition of ultra thin films. In addition, the book presents details of state-of-the-art characterization methods and summaries of representative families of materials, including tables of properties. CGS equivalents (to SI) are included.

Chronicle Financial Aid Guide 2009-2010

This book provides comprehensive information on new and existing vessel imaging
techniques, with the intention of improving diagnosis, treatment, and prevention of vascular and related diseases. In recent years, vessel wall imaging has expanded greatly into other beds (such as the intracranial and peripheral arteries) and many of the techniques available for evaluation and diagnosis have only previously been published in research papers. This book bridges that gap for clinicians, applying cutting edge research to their everyday practice. The first six sections of the book are centered around individual vessel beds. These chapters will teach clinicians the multi-modality imaging techniques available to image these vessels and related pathology with a focus on new imaging tools and techniques. The final two sections of the book will offer a more comprehensive technical background aimed at imaging scientists for the imaging techniques used and the relationship of blood flow and modeling to disease monitoring and prevention. This is an ideal guide for radiologists and imaging scientists looking to learn the latest techniques in vessel imaging.

Applications of Operations Research in Forest Management

A major part of natural language processing now depends on the use of text data to build linguistic analyzers. We consider statistical, computational approaches to modeling linguistic structure. We seek to unify across many approaches and many kinds of linguistic structures. Assuming a basic understanding of natural language processing and/or machine learning, we seek to bridge the gap between the two fields. Approaches to decoding (i.e., carrying out linguistic structure prediction) and supervised and unsupervised learning of models that predict discrete structures as outputs are the focus. We also survey natural language processing problems to which these methods are being applied, and we address related topics in probabilistic inference, optimization, and experimental methodology. Table of Contents: Representations and Linguistic Data / Decoding: Making Predictions / Learning Structure from Annotated Data / Learning Structure from Incomplete Data / Beyond Decoding: Inference

Capability-Based Computer Systems

In Whistling Vivaldi, described as a 'beautifully-written account' of the relationship between stereotypes and identity, Claude Steele offers a vivid first-person detailing of the research that brought him to his groundbreaking conclusions. Through the telling of dramatic personal stories, Dr. Steele shares the process of constructing and completing experiments and statistical studies that show that exposing subjects to stereotypes - merely reminding a group of female math majors about to take a math test, for example, that women are considered naturally inferior to men at math - impairs their performance in the area affected by the stereotype. Steele's conclusions shed new light on a host of American social phenomena, from the racial and gender gaps in standardized test scores to the belief in the superior athletic prowess of black men. As Homi Bhabha states, 'Steele's book is both urgent and important in understanding the tyranny of the stereotype and liberating ourselves from its derogatory, one-dimensional vision.' Whistling Vivaldi presents a new way of looking at identity and the way it is shaped by social expectations, and, in Richard Thompson Ford's words, 'offers a clear and compelling analysis and, better still, straightforward and practical solutions.'

Fundamentals and Applications of Magnetic Materials

An in-depth examination of the novel ways young people support and learn from each other though participation in online fanfiction communities. Over the past twenty years, amateur fanfiction writers have published an astonishing amount of fiction in online repositories. More than 1.5 million enthusiastic fanfiction writers—primarily young people in their teens and twenties—have contributed nearly seven million stories and
more than 176 million reviews to a single online site, Fanfiction.net. In this book, Cecilia Aragon and Katie Davis provide an in-depth examination of fanfiction writers and fanfiction repositories, finding that these sites are not shallow agglomerations and regurgitations of pop culture but rather online spaces for sophisticated and informal learning. Through their participation in online fanfiction communities, young people find ways to support and learn from one another. Aragon and Davis term this novel system of interactive advice and instruction distributed mentoring, and describe its seven attributes, each of which is supported by an aspect of networked technologies: aggregation, accretion, acceleration, abundance, availability, asynchronicity, and affect. Employing an innovative combination of qualitative and quantitative analyses, they provide an in-depth ethnography, reporting on a nine-month study of three fanfiction sites, and offer a quantitative analysis of lexical diversity in the 61.5 billion words on the Fanfiction.net site. Going beyond fandom, Aragon and Davis consider how distributed mentoring could improve not only other online learning platforms but also formal writing instruction in schools.

Database Sockets and Web Application Development

Open microfluidics, the study of microflows having a boundary with surrounding air, encompasses different aspects such as paper or thread-based microfluidics, droplet microfluidics and open-channel microfluidics. Open-channel microflow is a flow at the micro-scale, guided by solid structures, and having at least a free boundary (with air or vapor) other than the advancing meniscus. This book is devoted to the study of open-channel microfluidics which (contrary to paper or thread or droplet microfluidics) is still very sparsely documented, but bears many new applications in biology, biotechnology, medicine, material and space sciences. Capillarity being the principal force triggering an open microflow, the principles of capillarity are first recalled. The onset of open-channel microflow is next analyzed and the fundamental notion of generalized Cassie angle (the apparent contact angle which accounts for the presence of air) is presented. The theory of the dynamics of open-channel microflows is then developed, using the notion of averaged friction length which accounts for the presence of air along the boundaries of the flow domain. Different channel morphologies are studied and geometrical features such as valves and capillary pumps are examined. An introduction to two-phase open-channel microflows is also presented showing that immiscible plugs can be transported by an open-channel flow. Finally, a selection of interesting applications in the domains of space, materials, medicine and biology is presented, showing the potentialities of open-channel microfluidics.

Open-Channel Microfluidics

A NEW YORK TIMES NOTABLE BOOK OF 2020 From award-winning higher education journalist and New York Times bestselling author Jeffrey Selingo comes a revealing look from inside the admissions office—one that identifies surprising strategies that will aid in the college search. Getting into a top-ranked college has never seemed more impossible, with acceptance rates at some elite universities dipping into the single digits. In Who Gets In and Why, journalist and higher education expert Jeffrey Selingo dispels entrenched notions of how to compete and win at the admissions game, and reveals that teenagers and parents have much to gain by broadening their notion of what qualifies as a “good college.” Hint: it’s not all about the sticker on the car window. Selingo, who was embedded in three different admissions offices—a selective private university, a leading liberal arts college, and a flagship public campus—closely observed gatekeepers as they made their often agonizing and sometimes life-changing decisions. He also followed select students and their parents, and he traveled around the country meeting with high school counselors, marketers, behind-the-scenes consultants, and college rankers. While
many have long believed that admissions is merit-based, rewarding the best students, Who Gets In and Why presents a more complicated truth, showing that “who gets in” is frequently more about the college’s agenda than the applicant. In a world where thousands of equally qualified students vie for a fixed number of spots at elite institutions, admissions officers often make split-second decisions based on a variety of factors—like diversity, money, and, ultimately, whether a student will enroll if accepted. One of the most insightful books ever about “getting in” and what higher education has become, Who Gets In and Why not only provides an usually intimate look at how admissions decisions get made, but guides prospective students on how to honestly assess their strengths and match with the schools that will best serve their interests.

The Annals of the Parish

Capability-Based Computer Systems focuses on computer programs and their capabilities. The text first elaborates capability- and object-based system concepts, including capability-based systems, object-based approach, and summary. The book then describes early descriptor architectures and explains the Burroughs B5000, Rice University Computer, and Basic Language Machine. The text also focuses on early capability architectures. Dennis and Van Horn's Supervisor; CAL-TSS System; MIT PDP-1 Timesharing System; and Chicago Magic Number Machine are discussed. The book then describes Plessey System 250, Cambridge CAP Computer, and Hydra System. The selection also discusses STAROS System and IBM System/38. STAROS object support and abstract type management, as well as IBM System/38 profiles and authority and programs/procedures, are described. The book highlights Intel iAPX 432, and then considers segment and objects, program execution, storage resources, and abstraction support. Problems related with capability-based architectures are also noted. The text is a good source for readers wanting to study computer programming.

Interlibrary Loan and Document Delivery in the Larger Academic Library

Two girls on opposite sides of a war discover they’re fighting for a common purpose—and falling for each other—in Zoe Hana Mikuta's high-octane debut Gearbreakers, perfect for fans of Pacific Rim, Pierce Brown's Red Rising Saga, and Marie Lu's Legend series. We went past praying to deities and started to build them instead The shadow of Godolia’s tyrannical rule is spreading, aided by their giant mechanized weapons known as Windups. War and oppression are everyday constants for the people of the Badlands, who live under the thumb of their cruel Godolia overlords. Eris Shindanai is a Gearbreaker, a brash young rebel who specializes in taking down Windups from the inside. When one of her missions goes awry and she finds herself in a Godolia prison, Eris meets Sona Steelcrest, a cybernetically enhanced Windup pilot. At first Eris sees Sona as her mortal enemy, but Sona has a secret: She has intentionally infiltrated the Windup program to destroy Godolia from within. As the clock ticks down to their deadliest mission yet, a direct attack to end Godolia's reign once and for all, Eris and Sona grow closer—as comrades, friends, and perhaps something more

The University of Washington Libraries ARL Preservation Planning Program

Using our moral and technical imaginations to create responsible innovations: theory, method, and applications for value sensitive design. Implantable medical devices and human dignity. Private and secure access to information. Engineering projects that transform the Earth. Multigenerational information systems for international justice. How should designers, engineers, architects, policy makers, and others design such technology? Who should be involved and what values are implicated? In Value Sensitive Design, Batya Friedman and David Hendry describe how both moral and technical
imagination can be brought to bear on the design of technology. With value sensitive design, under development for more than two decades, Friedman and Hendry bring together theory, methods, and applications for a design process that engages human values at every stage. After presenting the theoretical foundations of value sensitive design, which lead to a deep rethinking of technical design, Friedman and Hendry explain seventeen methods, including stakeholder analysis, value scenarios, and multilifespan timelines. Following this, experts from ten application domains report on value sensitive design practice. Finally, Friedman and Hendry explore such open questions as the need for deeper investigation of indirect stakeholders and further method development. This definitive account of the state of the art in value sensitive design is an essential resource for designers and researchers working in academia and industry, students in design and computer science, and anyone working at the intersection of technology and society.

**Gearbreakers**

Set between the rise of the U.S. and Japan as Pacific imperial powers in the 1890s and the aftermath of the latter's defeat in World War II, Strange Fruit of the Black Pacific traces the interrelated migrations of African Americans, Japanese Americans, and Filipinos across U.S. domains. Offering readings in literature, blues and jazz culture, film, theater, journalism, and private correspondence, Vince Schleitwiler considers how the collective yearnings and speculative destinies of these groups were bound together along what W.E.B. Du Bois called the world-belting color line. The links were forged by the paradoxical practices of race-making in an aspiring empire—benevolent uplift through tutelage, alongside overwhelming sexualized violence—which together comprise what Schleitwiler calls “imperialism’s racial justice.” This process could only be sustained through an ongoing training of perception in an aesthetics of racial terror, through rituals of racial and colonial violence that also provide the conditions for an elusive countertraining. With an innovative prose style, Strange Fruit of the Black Pacific pursues the poetic and ethical challenge of reading, or learning how to read, the black and Asian literatures that take form and flight within the fissures of imperialism’s racial justice. Through startling reinterpretations of such canonical writers as James Weldon Johnson, Nella Larsen, Toshio Mori, and Carlos Bulosan, alongside considerations of unexpected figures such as the musician Robert Johnson and the playwright Eulalie Spence, Schleitwiler seeks to reactivate the radical potential of the Afro-Asian imagination through graceful meditations on its representations of failure, loss, and overwhelming violence.

**Application of Travel Time and Fuel Consumption for Truck Route Analysis**

**Game Theory, Alive**

We live in a highly connected world with multiple self-interested agents interacting and myriad opportunities for conflict and cooperation. The goal of game theory is to understand these opportunities. This book presents a rigorous introduction to the mathematics of game theory without losing sight of the joy of the subject. This is done by focusing on theoretical highlights (e.g., at least six Nobel Prize winning results are developed from scratch) and by presenting exciting connections of game theory to other fields such as computer science (algorithmic game theory), economics (auctions and matching markets), social choice (voting theory), biology (signaling and evolutionary stability), and learning theory. Both classical topics, such as zero-sum games, and modern topics, such as sponsored search auctions, are covered. Along the way, beautiful mathematical tools used in game theory are introduced, including convexity, fixed-point theorems, and probabilistic arguments. The book is appropriate for a first course in game
theory at either the undergraduate or graduate level, whether in mathematics, economics, computer science, or statistics. The importance of game-theoretic thinking transcends the academic setting—for every action we take, we must consider not only its direct effects, but also how it influences the incentives of others.

**University of Washington Publications in Oceanography**

For 250 years after its introduction to Europe around 1600, the method of decorating paper known as marbling reigned supreme as the chief means of embellishing the fine work of hand-bookbinders. Richard J. Wolfe reconstructs the rise and fall of the craft and offers the most comprehensive account available of its history, techniques, and patterns. A publication of the A.S.W. Rosenbach Fellowship in Bibliography Series

**Whistling Vivaldi: How Stereotypes Affect Us and What We Can Do (Issues of Our Time)**

**Dirty Paper Coding Applications in Wireless Networks**

**Marbled Paper**

By the turn of the twentieth century, the eastern Mediterranean port city of Izmir had been home to a vibrant and substantial Sephardi Jewish community for over four hundred years, and had emerged as a major center of Jewish life. The Jews of Ottoman Izmir tells the story of this long overlooked Jewish community, drawing on previously untapped Ladino archival material. Across Europe, Jews were often confronted with the notion that their religious and cultural distinctiveness was somehow incompatible with the modern age. Yet the view from Ottoman Izmir invites a different approach: what happens when Jewish difference is totally unremarkable? Dina Danon argues that while Jewish religious and cultural distinctiveness might have remained unquestioned in this late Ottoman port city, other elements of Jewish identity emerged as profound sites of tension, most notably those of poverty and social class. Through the voices of both beggars on the street and mercantile elites, shoe-shiners and newspaper editors, rabbis and housewives, this book argues that it was new attitudes to poverty and class, not Judaism, that most significantly framed this Sephardi community's encounter with the modern age.

**Shaping the Shoreline**

**Detection of Nonlinearity and Chaos**

Universal Design in Higher Education looks at the design of physical and technological environments at institutions of higher education; at issues pertaining to curriculum and instruction; and at the full array of student services. Universal Design in Higher Education is a comprehensive guide for researchers and practitioners on creating fully accessible college and university programs. It is founded upon, and contributes to, theories of universal design in education that have been gaining increasingly wide attention in recent years. As greater numbers of students with disabilities attend postsecondary educational institutions, administrators have expressed increased interest in making their programs accessible to all students. This book provides both theoretical and practical guidance for schools as they work to turn this admirable goal into a reality.
It addresses a comprehensive range of topics on universal design for higher education institutions, thus making a crucial contribution to the growing body of literature on special education and universal design. This book will be of unique value to university and college administrators, and to special education researchers, practitioners, and activists.

**Geological Survey Professional Paper**

Every year, hundreds of thousands of young people pack their bags to study or volunteer abroad. Well-intentioned and curious Westerners--brought up to believe that international travel broadens our horizons--travel to low-income countries to learn about people and cultures different from their own. But while travel abroad can provide much-needed perspective, it can also be deeply unsettling, confusing, and discomforting. Travelers can find themselves unsure about how to think or speak about the differences in race or culture they find, even though these differences might have fueled their desire to travel in the first place. Beyond Guilt Trips helps us to unpack our Western baggage, so that we are better able to understand our uncomfortable feelings about who we are, where we come from, and how much we have. Through engaging personal travel stories and thought-provoking questions about the ethics and politics of our travel, Beyond Guilt Trips shows readers ways to grapple with their discomfort and navigate differences through accountability and connection.

**Who Gets In and Why**

**Value Sensitive Design**

**Universal Design in Higher Education**

**Shared Memory Multiprocessing**

**The Jews of Ottoman Izmir**

Patrick M. Benson originated database sockets, enabling enterprise-scale and e-commerce capable web systems. In the mid-1990's he gave four national presentations and presented two papers detailing how n-tier web systems could be built and the role database sockets played. These became part of the web developer's toolbox. This collection pulls together for the first time all six documents. It includes contemporaneous speaker notes, updates to the papers and presentations notes reflecting questions and answers at the conferences, and update comments from June 2012. Included are: • "Perl as a System Glue" from the First O'Reilly Perl Conference. The paper and presentation are the genesis of database sockets and distributed computing in UNIX and related open source tools. • "OASIS - A Web Based Fixed Assets System" from the Indiana University 1998 WebDevShare conference. The paper and presentation that provided the first deep technical details describing how database sockets worked. It includes the C-code necessary to implement server side database sockets. • "OASIS - A Web Based Fixed Assets System" from the 1998 EduComm/EduCause national conference. Here Benson provided a management view into sample systems and web development and activities. This includes Benson's Best Practices model • "Performance Driven Design Issues in Web Development" from the 1999 WebDevShare conference. This presentation addressed
challenges of moving web systems from development into production. Here Benson introduced both real-world n-tier, multiport and multithread sockets as a solution to issues faced by web developers.

**The Application of Modern Lexicographic Techniques to Machine Indexing**

In *Creating Inclusive Learning Opportunities in Higher Education*, Sheryl Burgstahler provides a practical, step-by-step guide for putting the principles of universal design into action. The book offers multiple ways to access, engage with, and transform the higher education environment: making physical spaces welcoming to students of all abilities; creating digital learning and assistive technology programs that meet the needs of all users; developing universal design in higher education (UDHE) syllabi, assessments and teaching practices that minimize the need for academic accommodations; and institutionalizing universal design supports and services. A follow-up to *Universal Design in Higher Education*, Burgstahler's new book will be a valuable resource for leaders, faculty, and administrators who are interested in acquiring the tools needed to create barrier-free learning environments. Filled with applications, examples, recommendations, and above all, a framework in which to conceptualize UDHE, this volume will help educators meet the design needs of all students and honor the principles of diversity and inclusivity.

**Linguistic Structure Prediction**

Despite a number of books on biophotonics imaging for medical diagnostics and therapy, the field still lacks a comprehensive imaging book that describes state-of-the-art biophotonics imaging approaches intensively developed in recent years. Addressing this shortfall, *Advanced Biophotonics: Tissue Optical Sectioning* presents contemporary methods and applications of biophotonics imaging. Gathering research otherwise scattered in numerous physical, chemical, biophysical, and biomedical journals, the book helps researchers, bioengineers, and medical doctors understand major recent bioimaging technologies and the underlying biophotonics science. Well-known international experts explore a variety of "hot" biomedical optics and biophotonics problems, including the use of photoacoustic imaging to investigate the molecular and cellular processes in living systems. The book also covers Monte Carlo modeling, tissue optics and tissue optical clearing, nonlinear optical microscopy, various aspects of optical coherence tomography, multimodal tomography, adaptive optics, and signal imaging. With 58 color images, this book represents a valuable contribution to the biomedical and biophotonics literature. Designed for researchers and practitioners in biophotonics, the book is also a useful resource for scientists in laser physics and technology, fiber optics, spectroscopy, materials science, biology, and medicine as well as students studying biomedical physics and engineering, biomedical optics, and biophotonics.

**Establishing Paper Types for Manuscript Dating Purposes**

**Creating Inclusive Learning Opportunities in Higher Education**

**Applications of Curves Over Finite Fields**

As a young man just out of divinity school at the University of Glasgow and recently accepted for the ministry, the Reverend Micah Balwhidder was appointed to the charge of the established Presbyterian Church in the village of Dalmailing in western Scotland. Because he had been appointed by a great landowner, without their approval, the people
of Dalmailing tried to prevent Mr. Balwhidder from taking his post. On the Sunday Mr. Balwhidder was installed, the officiating ministers had to enter the church through a window, because the door had been nailed fast. Nor did they try to go to the church without a guard of soldiers. Immediately after being installed, Mr. Balwhidder began a series of visits to his parishioners, as he believed a good Calvinistic clergyman should do. He was rebuffed at door after door, until Thomas Thorl, the minister's most outspoken opponent, relented and accepted him. The rest of the parish followed within a matter of weeks. Soon after the excitement died down, Mr. Balwhidder married his first wife Betty Lanshaw, a cousin with whom he had grown up; he believed strongly that a minister should be married to accomplish his best work.

**Architecture in Industrial Applications**

This volume presents the results of the AMS-IMS-SIAM Joint Summer Research Conference held at the University of Washington (Seattle). The talks were devoted to various aspects of the theory of algebraic curves over finite fields and its numerous applications. The three basic themes are the following: Curves with many rational points. Several articles describe main approaches to the construction of such curves: the Drinfeld modules and fiber product methods, the moduli space approach, and the constructions using classical curves; Monodromy groups of characteristic $p$ covers. A number of authors presented the results and conjectures related to the study of the monodromy groups of curves over finite fields. In particular, they study the monodromy groups from genus $0$ covers, reductions of covers, and explicit computation of monodromy groups over finite fields; and, Zeta functions and trace formulas. To a large extent, papers devoted to this topic reflect the contributions of Professor Bernard Dwork and his students. This conference was the last attended by Professor Dwork before his death, and several papers inspired by his presence include commentaries about the applications of trace formulas and $L$-function. The volume also contains a detailed introduction paper by Professor Michael Fried, which helps the reader to navigate in the material presented in the book.

**Model-Based Clustering and Classification for Data Science**

This book is the first to provide a coherent review of current research in shared memory multiprocessing in the United States and Japan. Shared memory multiprocessors are becoming the dominant architecture for small-scale parallel computation. This book is the first to provide a coherent review of current research in shared memory multiprocessing in the United States and Japan. It focuses particularly on scalable architectures that will be able to support hundreds of microprocessors as well as on efficient and economical ways of connecting these fast microprocessors. The twenty contributions are divided into sections covering the experience to date with multiprocessors, cache coherency, software systems, and examples of scalable shared memory multiprocessors. Norihisa Suzuki is Director of the IBM Tokyo Research Laboratory. He is the co-inventor of the snoop cache, which in the early 1980s helped make it possible to build affordable and reliable shared memory multiprocessors.

**Computer Vision**

Cluster analysis finds groups in data automatically. Most methods have been heuristic and leave open such central questions as: how many clusters are there? Which method should I use? How should I handle outliers? Classification assigns new observations to groups given previously classified observations, and also has open questions about parameter tuning, robustness and uncertainty assessment. This book frames cluster analysis and classification in terms of statistical models, thus yielding principled
estimation, testing and prediction methods, and sound answers to the central questions. It builds the basic ideas in an accessible but rigorous way, with extensive data examples and R code; describes modern approaches to high-dimensional data and networks; and explains such recent advances as Bayesian regularization, non-Gaussian model-based clustering, cluster merging, variable selection, semi-supervised and robust classification, clustering of functional data, text and images, and co-clustering. Written for advanced undergraduates in data science, as well as researchers and practitioners, it assumes basic knowledge of multivariate calculus, linear algebra, probability and statistics.

**Vessel Based Imaging Techniques**

The Monterey coast, home to an acclaimed aquarium and the setting for John Steinbeck's classic novel Cannery Row, was also the stage for a historical junction of industry and tourism. Shaping the Shoreline looks at the ways in which Monterey has formed, and been formed by, the tension between labor and leisure. Connie Y. Chiang examines Monterey's development from a seaside resort into a working-class fishing town and, finally, into a tourist attraction again. Through the subjects of work, recreation, and environment -- the intersections of which are applicable to communities across the United States and abroad -- she documents the struggles and contests over this magnificent coastal region. By tracing Monterey's shift from what was once the literal Cannery Row to an iconic hub that now houses an aquarium in which nature is replicated to attract tourists, the interactions of people with nature continues to change. Drawing on histories of immigration, unionization, and the impact of national and international events, Chiang explores the reciprocal relationship between social and environmental change. By integrating topics such as race, ethnicity, and class into environmental history, Chiang illustrates the idea that work and play are not mutually exclusive endeavors.

**Writers in the Secret Garden**

**Beyond Guilt Trips**

Robust Automatic Speech Recognition: A Bridge to Practical Applications establishes a solid foundation for automatic speech recognition that is robust against acoustic environmental distortion. It provides a thorough overview of classical and modern noise- and reverberation robust techniques that have been developed over the past thirty years, with an emphasis on practical methods that have been proven to be successful and which are likely to be further developed for future applications. The strengths and weaknesses of robustness-enhancing speech recognition techniques are carefully analyzed. The book covers noise-robust techniques designed for acoustic models which are based on both Gaussian mixture models and deep neural networks. In addition, a guide to selecting the best methods for practical applications is provided. The reader will: Gain a unified, deep and systematic understanding of the state-of-the-art technologies for robust speech recognition Learn the links and relationship between alternative technologies for robust speech recognition Be able to use the technology analysis and categorization detailed in the book to guide future technology development Be able to develop new noise-robust methods in the current era of deep learning for acoustic modeling in speech recognition The first book that provides a comprehensive review on noise and reverberation robust speech recognition methods in the era of deep neural networks Connects robust speech recognition techniques to machine learning paradigms with rigorous mathematical treatment Provides elegant and structural ways to categorize and analyze noise-robust speech recognition techniques Written by leading researchers who have been actively working on the subject matter in both industrial and
academic organizations for many years

**Nuclear Applications to the Wood, Paper and Pulp Industries Conference**

**Strange Fruit of the Black Pacific**

Computer Vision: Algorithms and Applications explores the variety of techniques commonly used to analyze and interpret images. It also describes challenging real-world applications where vision is being successfully used, both for specialized applications such as medical imaging, and for fun, consumer-level tasks such as image editing and stitching, which students can apply to their own personal photos and videos. More than just a source of “recipes,” this exceptionally authoritative and comprehensive textbook/reference also takes a scientific approach to basic vision problems, formulating physical models of the imaging process before inverting them to produce descriptions of a scene. These problems are also analyzed using statistical models and solved using rigorous engineering techniques. Topics and features: structured to support active curricula and project-oriented courses, with tips in the Introduction for using the book in a variety of customized courses; presents exercises at the end of each chapter with a heavy emphasis on testing algorithms and containing numerous suggestions for small mid-term projects; provides additional material and more detailed mathematical topics in the Appendices, which cover linear algebra, numerical techniques, and Bayesian estimation theory; suggests additional reading at the end of each chapter, including the latest research in each sub-field, in addition to a full Bibliography at the end of the book; supplies supplementary course material for students at the associated website, http://szeliski.org/Book/. Suitable for an upper-level undergraduate or graduate-level course in computer science or engineering, this textbook focuses on basic techniques that work under real-world conditions and encourages students to push their creative boundaries. Its design and exposition also make it eminently suitable as a unique reference to the fundamental techniques and current research literature in computer vision.

**Robust Automatic Speech Recognition**

**The Art of Marbled Paper**

The perfect introduction to interlibrary loan! Interlibrary Loan and Document Delivery in the Larger Academic Library is primarily a practical handbook for library staff members who are new to interlibrary loan, the suggestions and resources it contains will also be valuable to experienced interlibrary loan staff. With the tremendous changes and innovative new technologies that have been introduced in the past few years, this essential book fills an urgent need in the library literature for an up-to-date interlibrary loan manual. Based upon the policies and procedures of the interlibrary loan department at Rice University in Houston, Texas, this handy desk reference provides a case study of an actual ILL department as well as general suggestions for organizing and operating a modern ILL department. Interlibrary Loan and Document Delivery in the Larger Academic Library: A Guide for University, Research, and Larger Public Libraries provides you with: the latest, most up-to-date treatment of interlibrary loan available a patron’s perspective on ILL—what users want and expect from ILL services an extensive list of resources for copyright information and updated information on copyright law as it applies to ILL an extensive list of interlibrary loan resources practical examples based on the real operation of an ILL department helpful appendices and flow charts of the ILL process an annotated bibliography and list of resources for further exploration Designed primarily
for librarians with little to no real practical experience in interlibrary loan, this book will educate readers about ILL and to provide a basic framework for evaluating an existing ILL operation or establishing a new one. It will also be a valuable reference for supervisors with responsibility for the ILL department, reference librarians, and experienced interlibrary loan librarians looking for expert, up-to-date information.

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