

Beautiful Data: The Stories Behind Elegant Data Solutions

Counsels programmers and administrators for big and small organizations on how to work with large-scale application datasets using Apache Hadoop, discussing its capacity for storing and processing large amounts of data while demonstrating best practices for building reliable and scalable distributed systems.

Equal parts mail art, data visualization, and affectionate correspondence, Dear Data celebrates "the infinitesimal, incomplete, imperfect, yet exquisitely human details of life," in the words of Maria Popova (Brain Pickings), who introduces this charming and graphically powerful book. For one year, Giorgia Lupi, an Italian living in New York, and Stefanie Posavec, an American in London, mapped the particulars of their daily lives as a series of hand-drawn postcards they exchanged via mail weeklysmall portraits as full of emotion as they are data, both mundane and magical. Dear Data reproduces in pinpoint detail the full year's set of cards, front and back, providing a remarkable portrait of two artists connected by their attention to the details of their livesincluding complaints, distractions, phone addictions, physical contact, and desires. These details illuminate the lives of two remarkable young women and also inspire us to map our own lives, including specific suggestions on what data to draw and how. A captivating and unique book for designers, artists, correspondents, friends, and lovers everywhere.

The colorful charts, graphs, and maps presented at the 1900 Paris Exposition by famed sociologist and black rights activist W. E. B. Du Bois offered a view into the lives of black Americans, conveying a literal and figurative representation of "the color line." From advances in education to the lingering effects of slavery, these prophetic infographics beautiful in design and powerful in contentmake visible a wide spectrum of black experience. W. E. B. Du Bois's Data Portraits collects the complete set of graphics in full color for the first time, making their insights and innovations available to a contemporary imagination. As Maria Popova wrote, these data portraits shaped how "Du Bois himself thought about sociology, informing the ideas with which he set the world ablaze three years later in The Souls of Black Folk."

Unlike any time before in our lives, we have access to vast amounts of free information. With the right tools, we can start to make sense of all this data to see patterns and trends that would otherwise be invisible to us. By transforming numbers into graphical shapes, we allow readers to understand the stories those numbers hide. In this practical introduction to understanding and using information graphics, you'll learn how to use data visualizations as tools to see beyond lists of numbers and variables and achieve new insights into the complex world around us. Regardless of the kind of data you're working withbusiness, science, politics, sports, or even your own personal financesthis book will show you how to use statistical charts, maps, and explanation diagrams to spot the stories in the data and learn new things from it. You'll also get to peek into the creative process of some of the world's most talented designers and visual journalists, including Condé Nast Traveler's John Grimwade, National Geographic Magazine's Fernando Baptista, The New York Times's Steve Duenes, The Washington Post's Hannah Fairfield, Hans Rosling of the Gapminder Foundation, Stanford's Geoff McGhee, and European superstars Moritz Stefaner, Jan Willem Tulp, Stefanie Posavec, and Gregor Aisch. The book also includes a DVD-ROM containing over 90 minutes of video lessons that expand on core concepts explained within the book and includes even more inspirational information graphics from the world's leading designers. The first book to offer a broad, hands-on introduction to information graphics and visualization, The Functional Art reveals:
• Why data visualization should be thought of as functional art rather than fine art
• How to use color, type, and other graphic tools to make your information graphics more effective, not just better looking
• The science of how our brains perceive and remember information
• Best practices for creating interactive information graphics
• A comprehensive look at the creative process behind successful information graphics
• An extensive gallery of inspirational work from the world's top designers and visual artists
On the DVD-ROM: In this introductory video course on information graphics, Alberto Cairo goes into greater detail with even more visual examples of how to create effective information graphics that function as practical tools for aiding perception. You'll learn how to: incorporate basic design principles in your visualizations, create simple interfaces for interactive graphics, and choose the appropriate type of graphic forms for your data. Cairo also deconstructs successful information graphics from The New York Times and National Geographic magazine with sketches and images not shown in the book. All of Peachpit's eBooks contain the same content as the print edition. You will find a link in the last few pages of your eBook that directs you to the media files. Helpful tips: If you are able to search the book, search for "Where are the lesson files?" Go to the very last page of the book and scroll backwards. You will need a web-enabled device or computer in order to access the media files that accompany this eBook. Entering the URL supplied into a computer with web access will allow you to get to the files. Depending on your device, it is possible that your display settings will cut off part of the URL. To make sure this is not the case, try reducing your font size and turning your device to a landscape view. This should cause the full URL to appear.

Testing the Data Warehouse Practicum

A Citizen's Guide to a Better Information Future

Big Data: Conceptual Analysis and Applications

Visualize This

Data Mining and Big Data

Beautiful Joe

An Autobiography

This proceedings set contains 85 selected full papers presented at the 3rd International Conference on Modelling, Computation and Optimization in Information Systems and Management Sciences - MCO 2015, held on May 11 – 13, 2015 at Lorraine University, France. The present part II of the 2 volume set includes articles devoted to Data analysis and Data mining, Heuristic / Meta heuristic methods for operational research applications, Optimization applied to surveillance and threat detection, Maintenance and Scheduling, Post Crises banking and eco-finance modelling, Transportation, as well as Technologies and methods for multi-stakeholder decision analysis in public settings.

No matter what your actual job title, you are—or soon will be—a data worker. Every day, at work, home, and school, we are bombarded with vast amounts of free data collected and shared by everyone and everything from our co-workers to our calorie counters. In this highly anticipated follow-up to The Functional Art—Alberto Cairo’s foundational guide to understanding information graphics and visualization—the respected data visualization professor explains in clear terms how to work with data, discover the stories hidden within, and share those stories with the world in the form of charts, maps, and infographics. In The Truthful Art, Cairo transforms elementary principles of data and scientific reasoning into tools that you can use in daily life to interpret data sets and extract stories from them. The Truthful Art explains:
• The role of infographics and data visualization play in our world
• Basic principles of data and scientific reasoning that anyone can master
• How to become a better critical thinker
• Step-by-step processes that will help you evaluate any data visualization (including your own)
• How to create and use effective charts, graphs, and data maps to explain data to any audience
The Truthful Art is also packed with inspirational and educational real-world examples of data visualizations from such leading publications as The New York Times, The Wall Street Journal, Estado de São Paulo (Brazil), Berliner Morgenpost (Germany), and many more.

The book examines the extent to which Chinese cyber and network security laws and policies act as a constraint on the emergence of Chinese entrepreneurialism and innovation. Specifically, how the contradictions and tensions between data localisation laws (as part of Network Sovereignty policies) affect innovation in artificial intelligence (AI). The book surveys the globalised R&D networks, and how the increasing use of open-source platforms by leading Chinese AI firms during 2017 – 2020, exacerbated the apparent contradiction between Network Sovereignty and Chinese innovation. The drafting of the Cyber Security Law did not anticipate the changing nature of globalised AI innovation. It is argued that the deliberate deployment of what the book refers to as ‘fuzzy logic’ in drafting the Cyber Security Law allowed regulators to subsequently interpret key terms regarding data in that Law in a fluid and flexible fashion to benefit Chinese innovation.

In Data Sketches, Nadieh Bremer and Shirley Wu document the deeply creative process behind 24 unique data visualization projects, and they combine this with powerful technical insights which reveal the mindset behind coding creatively. Exploring 12 different themes – from the Olympics to Presidents & Royals and from Movies to Myths & Legends – each pair of visualizations explores different technologies and forms, blurring the boundary between visualization as an exploratory tool and an artform in its own right. This beautiful book provides an intimate, behind-the-scenes account of all 24 projects and shares the authors’ personal notes and drafts every step of the way. The book features: Detailed information on data gathering, sketching, and coding data visualizations for the web, with screenshots of works-in-progress and reproductions from the authors’ notebooks
Never-before-published technical write-ups, with beginner-friendly explanations of core data visualization concepts
Practical lessons based on the data and design challenges overcome during each project
Full-color pages, showcasing all 24 final data visualizations
This book is perfect for anyone interested or working in data visualization and information design, and especially those who want to take their work to the next level and are inspired by unique and compelling data-driven storytelling.

Handbook for Undergraduate Research Advisors

The Data Industry

The Big Book of Dashboards

Hadoop: The Definitive Guide

Dear Data

Data Sketches

Visualizing Black America

One of the "six best books for data geeks" – Financial Times *With over 200 images and extensive how-to and how-not-to examples, this new edition has everything students and scholars need to understand and create effective data visualisations. Combining 'how to think' instruction with a 'how to produce' mentality, this book takes readers step-by-step through analysing, designing, and curating information into useful, impactful tools of communication. With this book and its extensive collection of online support, readers can: – Decide what visualisations work best for their data and their audience using the chart gallery – See data visualisation in action and learn the tools to try it themselves – Follow online checklists, tutorials, and exercises to build skills and confidence – Get advice from the UK's leading data visualisation trainer on everything from getting started to honing the craft. Explore more resources about data visualisation and Andy Kirk.*

How does coding change the way we think about architecture? This question opens up an important research perspective. In this book, Miro Roman and his AI Alice_ch3n81 develop a playful scenario in which they propose coding as the new literacy of information. They convey knowledge in the form of a project model that links the fields of architecture and information through two interwoven narrative strands in an "infinite flow" of real books. Focusing on the intersection of information technology and architectural formulation, the authors create an evolving intellectual reflection on digital architecture and computer science.

A visual guide to the way the world really works *Every day, every hour, every minute we are bombarded by information – from television, from newspapers, from the internet, we're steeped in it, maybe even lost in it. We need a new way to relate to it, to discover the beauty and the fun of information for information's sake. No dry facts, theories or statistics. Instead, Information is Beautiful contains visually stunning displays of information that blend the facts with their connections, their context and their relationships – making information meaningful, entertaining and beautiful. This is information like you have never seen it before – keeping text to a minimum and using unique visuals that offer a blueprint of modern life – a map of beautiful colour illustrations that are tactile to hold and easy to flick through but intriguing and engaging enough to study for hours.*

Beautiful Stories from Shakespeare is a collection edited by Edith Nesbit. There are twenty of Shakespeare's plays and a brief biography all told in a manner that is understandable, and enjoyable to children. This book is the perfect introduction to Shakespeare's work and will open many literary doors for your child!

Theory and Practice

Beautiful Data

A journey of imagination, exploration, and beautiful data visualizations

Play Among Books

Proceedings of the 3rd International Conference on Modelling, Computation and Optimization in Information Systems and Management Sciences – MCO 2015 – Part II

XML and Web Technologies for Data Sciences with R

Visualizing Your Data Using Real-World Business Scenarios

*The book is devoted to the analysis of big data in order to extract from these data hidden patterns necessary for making decisions about the rational behavior of complex systems with the different nature that generate this data. To solve these problems, a group of new methods and tools is used, based on the self-organization of computational processes, the use of crisp and fuzzy cluster analysis methods, hybrid neural-fuzzy networks, and others. The book solves various practical problems. In particular, for the tasks of 3D image recognition and automatic speech recognition large-scale neural networks with applications for Deep Learning systems were used. Application of hybrid neuro-fuzzy networks for analyzing stock markets was presented. The analysis of big historical, economic and physical data revealed the hidden Fibonacci pattern about the course of systemic world conflicts and their connection with the Kondratieff big economic cycles and the Schwabe–Wolf solar activity cycles. The book is useful for system analysts and practitioners working with complex systems in various spheres of human activity. Impossible ideas, invisible patterns, hidden connections—visualized
Deepen your understanding of the world with these mind-blowing infographics from the bestselling author of The Visual Miscellaneum*

*Visualizing with Text uncovers the rich palette of text elements usable in visualizations from simple labels through to documents. Using a multidisciplinary research effort spanning across fields including visualization, typography, and cartography, it builds a solid foundation for the design space of text in visualization. The book illustrates many new kinds of visualizations, including microtext lines, skim formatting, and typographic sets that solve some of the shortcomings of well-known visualization techniques. Key features: More than 240 illustrations to aid inspiration of new visualizations
Eight new approaches to data visualization leveraging text
Quick reference guide for visualization with text
Builds a solid foundation extending current visualization theory
Bridges between visualization, typography, text analytics, and natural language processing
The author website, including teaching exercises and interactive demos and code, can be found here.
Designers, developers, and academics can use this book as a reference and inspiration for new approaches to visualization in any application that uses text.*

A dog describes being mistreated by a cruel master but then later being taken in by a kind family.

Effective Data Visualization

An introduction to information graphics and visualization

A Handbook for Data Driven Design

Visualization That Means Something

AI Development and the ‘Fuzzy Logic’ of Chinese Cyber Security and Data Laws

Multiple Perspectives on a Living Archive

Data, Charts, and Maps for Communication

The quality of a data warehouse (DWH) is the elusive aspect of it, not because it is hard to achieve [once we agree what it is], but because it is difficult to describe. We propose the notion that quality is not an attribute or a feature that a product has to possess, but rather a relationship between that product and each and every stakeholder. More specifically, the relationship between the software quality and the organization that produces the products is explored. Quality of data that populates the DWH is the main concern of the book, therefore we propose a definition for data quality as: fitness to serve each and every purpose. Methods are proposed throughout the book to help readers achieve data warehouse quality.

This book constitutes the thoroughly refereed post-conference proceedings of the International Conference on Industrial IoT Technologies and Applications, IoT 2016, held in GuangZhou, China, in March 2016. The volume contains 26 papers carefully reviewed and selected from 55 submissions focusing on topics such as big data, cloud computing, Internet of Things (IoT).

A fresh look at visualization from the author of Visualize This Whether it's statistical charts, geographic maps, or the snappy graphical statistics you see on your favorite news sites, the art of data graphics or visualization is fast becoming a movement of its own. In Data Points: Visualization That Means Something, author Nathan Yau presents an intriguing complement to his bestseller Visualize This, this time focusing on the graphics side of data analysis. Using examples from art, design, business, statistics, cartography, and online media, he explores both standard-and not so standard-concepts and ideas about illustrating data. Shares intriguing ideas from Nathan Yau, author of Visualize This and creator of [flowingdata.com](#), with over 66,000 subscribers
Focuses on visualization, data graphics that help viewers see trends and patterns they might not otherwise see in a table
Includes examples from the author's own illustrations, as well as from professionals in statistics, art, design, business, computer science, cartography, and more
Examines standard rules across all visualization applications, then explores when and where you can break those rules
Create visualizations that register at all levels, with Data Points: Visualization That Means Something.
Web technologies are increasingly relevant to scientists working with data, for both accessing data and creating rich dynamic and interactive displays. The XML and JSON data formats are widely used in Web services, regular Web pages and JavaScript code, and visualization formats such as SVG and KML for Google Earth and Google Maps. In addition, scientists use HTTP and other network protocols to scrape data from Web pages, access REST and SOAP Web Services, and interact with NoSQL databases and text search applications. This book provides a practical hands-on introduction to these technologies, including high-level functions the authors have developed for data scientists. It describes strategies and approaches for extracting data from HTML, XML, and JSON formats and how to programmatically access data from the Web. Along with these general skills, the authors illustrate several applications that are relevant to data scientists, such as reading and writing spreadsheet documents both locally and via Google Docs, creating interactive and dynamic visualizations, displaying spatial-temporal displays with Google Earth, and generating code from descriptions of data structures to read and write data. These topics demonstrate the rich possibilities and opportunities to do new things with these modern technologies. The book contains many examples and case-studies that readers can use directly and adapt to their own work. The authors have focused on the integration of these technologies with the R statistical computing environment. However, the ideas and skills presented here are more general, and statisticians who use other computing environments will also find them relevant to their work. Deborah Nolan is Professor of Statistics at University of California, Berkeley. Duncan Temple Lang is Associate Professor of Statistics at University of California, Davis and has been a member of both the S and R development teams.

Information is Beautiful

The Stories Behind Elegant Data Solutions

A Symposium on Architecture and Information Spelt in Atom-Letters

The Business and Economics of Information and Big Data

Foundations, Challenges, Opportunities

Storytelling with Data

Industrial IoT Technologies and Applications

A leading data visualization expert explores the negative—and positive—influences that charts have on our perception of truth. We’ve all heard that a picture is worth a thousand words, but what if we don’t understand what we’re looking at? Social media has made charts, infographics, and diagrams ubiquitous—and easier to share than ever. We associate charts with science and reason; the flashy visuals are both appealing and persuasive. Pie charts, maps, bar and line graphs, and scatter plots (to name a few) can better inform us, revealing patterns and trends hidden behind the numbers we encounter in our lives. In short, good charts make us smarter—if we know how to read them. However, they can also lead us astray. Charts lie in a variety of ways—displaying incomplete or inaccurate data, suggesting misleading patterns, and concealing uncertainty—or are frequently misunderstood, such as the confusing cone of uncertainty maps shown on TV every hurricane season. To make matters worse, many of us are ill-equipped to interpret the visuals that politicians, journalists, advertisers, and even our employers present each day, enabling bad actors to easily manipulate them to promote their own agendas. In How Charts Lie, data visualization expert Alberto Cairo teaches us to not only spot the lies in deceptive visuals, but also to take advantage of good ones to understand complex stories. Public conversations are increasingly propelled by numbers, and to make sense of them we must be able to decode and use visual information. By examining contemporary examples ranging from election-result infographics to global GDP maps and box-office record charts, How Charts Lie demystifies an essential new literacy, one that will make us better equipped to navigate our data-driven world.

Digital technologies have transformed archives in every area of their form and function, and as technologies mature so does their capacity to change our understanding and experience of material and performative cultural production. There has been an exponential explosion in the production and consumption of video online and yet there is a scarcity of knowledge and cases about video and the digital archive. This book seeks to address that through the lens of the project [Circus Oz Living Archive](#). This project provides the case study foundation for the articulation of the issues, challenges and possibilities that the design and development of digital archives afford. Drawn from eight different disciplines and professions, the authors explore what it means to embrace the possibilities of digital technologies to transform contemporary cultural institutions and their archives into new methods of performance, representation and history.

In this insightful book, you'll learn from the best data practitioners in the field just how wide-ranging -- and beautiful -- working with data can be. Join 39 contributors as they explain how they developed simple and elegant solutions on projects ranging from the Mars lander to a Radiohead video. With Beautiful Data, you will:
Explore the opportunities and challenges involved in working with the vast number of datasets made available by the Web
Learn how to visualize trends in urban crime, using maps and data mashups
Discover the challenges of designing a data processing system that works within the constraints of space travel
Learn how crowdsourcing and transparency have combined to advance the state of drug research
Understand how new data can automatically trigger alerts when it matches or overlaps pre-existing data
Learn about the massive infrastructure required to create, capture, and process DNA data
That's only small sample of what you'll find in Beautiful Data. For anyone who handles data, this is a truly fascinating book. Contributors include: Nathan Yau
Jonathan Follett and Matt Holm
J.M. Hughes
Raghu Ramakrishnan, Brian Cooper, and Utkarsh Srivastava
Jeff Hammerbacher
Jason Dykes and Jo Wood
Jeff Jonas and Lisa Sokol
Jud Valeski
Alon Halevy and Jayant Madhavan
Aaron Koblin with Valdean Klump
Michal Migurski
Jeff Heer
Coco Krumme
Peter Norvig
Matt Wood and Ben Blackburne
Jean-Claude Bradley, Rajarshi Guha, Andrew Lang, Pierre Lindenbaum, Cameron Neylon, Antony Williams, and Egon Willighagen
Lukas Biewald and Brendan O'Connor
Hadley Wickham, Deborah Swayne, and David Poole
Andrew Gelman, Jonathan P. Kastellec, and Yair Ghitza
Toby Segaran

NOW IN FULL COLOR! Written by sought-after speaker, designer, and researcher Stephanie D. H. Evergreen, Effective Data Visualization shows readers how to create Excel charts and graphs that best communicate their data findings. This comprehensive how-to guide functions as a set of blueprints—supported by both research and the author’s extensive experience with clients in industries all over the world—for conveying data in an impactful way. Delivered in Evergreen’s humorous and approachable style, the book covers the spectrum of graph types available beyond the default options, how to determine which one most appropriately fits specific data

stories, and easy steps for building the chosen graph in Excel. Now in full color with new examples throughout, the Second Edition includes a revamped chapter on qualitative data, nine new quantitative graph types, new shortcuts in Excel, and an entirely new chapter on Sharing Your Data With the World, which provides advice on using dashboards. New from Stephanie Evergreen! The Data Visualization Sketchbook provides advice on getting started with sketching and offers tips, guidance, and completed sample sketches for a number of reporting formats. Bundle Effective Data Visualization, 2e, and The Data Visualization Sketchbook, using ISBN 978-1-5443-7178-8!

Enterprise Games

Data Points

A Data Visualization Guide for Business Professionals

Knowledge Is Beautiful

Pasts, Presents, Futures

Visualizing with Text

Living in Data

Don't simply show your data—tell a story with it! Storytelling with Data teaches you the fundamentals of data visualization and how to communicate effectively with data. You'll discover the power of storytelling and the way to make data a pivotal point in your story. The lessons in this illuminative text are grounded in theory, but made accessible through numerous real-world examples—ready for immediate application to your next graph or presentation. Storytelling is not an inherent skill, especially when it comes to data visualization, and the tools at our disposal don't make it any easier. This book demonstrates how to go beyond conventional tools to reach the root of your data, and how to use your data to create an engaging, informative, compelling story. Specifically, you'll learn how to: Understand the importance of context and audience Determine the appropriate type of graph for your situation Recognize and eliminate the clutter clouding your information Direct your audience's attention to the most important parts of your data Think like a designer and utilize concepts of design in data visualization Leverage the power of storytelling to help your message resonate with your audience Together, the lessons in this book will help you turn your data into high impact visual stories that stick with your audience. Rid your world of ineffective graphs, one exploding 3D pie chart at a time. There is a story in your data—Storytelling with Data will give you the skills and power to tell it!

Jer Thorp's analysis of the word "data" in 10,325 New York Times stories written between 1984 and 2018 shows a distinct trend: among the words most closely associated with "data," we find not only its classic companions "information" and "digital," but also a variety of new neighbors—from "scandal" and "misinformation" to "ethics," "friends," and "play." To live in data in the twenty-first century is to be incessantly extracted from, classified and categorized, statisti-fied, sold, and surveilled. Data—our data—is mined and processed for profit, power, and political gain. In Living in Data, Thorp asks a crucial question of our time: How do we stop passively inhabiting data, and instead become active citizens of it? Threading a data story through hippo attacks, glaciers, and school gymnasiums, around colossal rice piles, and over active minefields, Living in Data reminds us that the future of data is still wide open, that there are ways to transcend facts and figures and to find more visceral ways to engage with data, that there are always new stories to be told about how data can be used. Punctuated with Thorp's original and informative illustrations, Living in Data not only redefines what data is, but reimagines who gets to speak its language and how to use its power to create a more just and democratic future. Timely and inspiring, Living in Data gives us a much-needed path forward.

Four leading experts convey the promise of data science and examine challenges in achieving its benefits and mitigating some harms.

Games are playing a crucial role in many successful businesses—not just in PR and marketing, but as a model for designing business systems and workflows. In this book, Michael Hugos provides compelling case studies that demonstrate how game mechanics enable companies to respond quickly to challenges in today's real-time economy. It's not about giving workers a smiley face for producing more widgets. You'll discover how game mechanics—particularly popular multiplayer video games—provide field-tested best practices for engaging workers in creative and complex activities. With games, your company can shift from an outmoded top-down hierarchy to an agile network structure that promotes coordination over control. Discover why industrial age business structures from the 20th century no longer work Design real-time business collaboration systems, using massively multiplayer online game concepts Make your in-house systems more agile with technologies such as social media, mobile devices, and cloud computing Understand game dynamics: goals, rules, real-time feedback, and voluntary participation Apply virtual worlds and 3-D animation to business intelligence and data analytics applications

Impossible Ideas, Invisible Patterns, Hidden Connections--Visualized

W. E. B. Du Bois's Data Portraits

How Charts Lie: Getting Smarter about Visual Information

Modelling, Computation and Optimization in Information Systems and Management Sciences

Data Science in Context

Image Studies

Performing Digital

"In this comprehensive book, Professor Randy Deutsch has unlocked and laid bare the twenty-first century codice nascosto of architecture. It is data. Big data. Data as driver. . . This book offers us the chance to become informed and knowledgeable pursuers of data and the opportunities it offers to making architecture a wonderful, useful, and smart art form." –From the Foreword by James Timberlake, FAIA
Written for architects, engineers, contractors, owners, and educators, and based on today's technology and practices, Data-Driven Design and Construction: 25 Strategies for Capturing, Applying and Analyzing Building Data addresses how innovative individuals and firms are using data to remain competitive while advancing their practices. seeks to address and rectify a gap in our learning, by explaining to architects, engineers, contractors and owners—and students of these fields—how to acquire and use data to make more informed decisions. documents how data-driven design is the new frontier of the convergence between BIM and architectural computational analyses and associated tools. is a book of adaptable strategies you and your organization can apply today to make the most of the data you have at your fingertips. Data-Driven Design and Construction was written to help design practitioners and their project teams make better use of BIM, and leverage data throughout the building lifecycle. Practical data design tips from a data visualization expert of the modern age Data doesn't decrease; it is ever-increasing and can be overwhelming to organize in a way that makes sense to its intended audience. Wouldn't it be wonderful if we could actually visualize data in such a way that we could maximize its potential and tell its story in a clear, concise manner? Thanks to the creative genius of Nathan Yau, we can. With this full-color book, data visualization guru and author Nathan Yau uses step-by-step tutorials to show you how to visualize and tell stories with data. He explains how to parse, and format data and then design high quality graphics that help you explore and present patterns, outliers, and relationships. Presents a unique approach to visualizing and telling stories with data, from a data visualization expert and the creator of flowingdata.com, Nathan Yau Offers step-by-step tutorials and practical design tips for creating statistical graphics, geographical maps, and information design to find meaning in the numbers Details tools that can be used to visualize data-native graphics for the Web, such as ActionScript, Flash libraries, PHP, and JavaScript and tools to design graphics for print, such as Rand Illustration Contains numerous examples and descriptions of patterns and outliers and explains how to show them Visualize This demonstrates how to explain data visually so that you can present your information in a way that is easy to understand and appealing.

The definitive reference book with real-world solutions you won't find anywhere else The Big Book of Dashboards presents a comprehensive reference for those tasked with building or overseeing the development of business dashboards. Comprising dozens of examples that address different industries and departments (healthcare, transportation, finance, human resources, marketing, customer service, sports, etc.) and different platforms (print, desktop, tablet, smartphone, and conference room display) The Big Book of Dashboards is the only book that matches great dashboards with real-world business scenarios. By organizing the book based on these scenarios and offering practical and effective visualization examples, The Big Book of Dashboards will be the trusted resource that you open when you need to build an effective business dashboard. In addition to the scenarios there's an entire section of the book that is devoted to addressing many practical and psychological factors you will encounter in your work. It's great to have theory and evidence-based research at your disposal, but what will you do when somebody asks you to make your dashboard 'cooler' by adding packed bubbles and donut charts? The expert authors have a combined 30-plus years of hands-on experience helping people in hundreds of organizations build effective visualizations. They have fought many 'best practices' battles and having endured bring an uncommon empathy to help you, the reader of this book, survive and thrive in the data visualization world. A well-designed dashboard can point out risks, opportunities, and more; but common challenges and misconceptions can make your dashboard useless at best, and misleading at worst. The Big Book of Dashboards gives you the tools, guidance, and models you need to produce great dashboards that inform, enlighten, and engage.

Written for diverse academic audience, this text serves as a handbook for professors, instructors, and advisors who oversee data collection by undergraduate students for the purpose of writing a research report. It provides background information concerning today's diverse undergraduate student population and the increasing emphasis placed on research in the college classroom and field settings, presents strategies for enhancing the research writing skills of undergraduate students, and examines specific research contexts. Adult educational theory is woven throughout the text, along with international perspectives.

Beautiful Stories From Shakespeare

The Right Chart for the Right Data

Scala: Applied Machine Learning

The Truthful Art

25 Strategies for Capturing, Analyzing and Applying Building Data

Science in the Archives

The Flowing Data Guide to Design, Visualization, and Statistics

Leverage the power of Scala and master the art of building, improving, and validating scalable machine learning and AI applications using Scala's most advanced and finest features About

This Book Build functional, type-safe routines to interact with relational and NoSQL databases with the help of the tutorials and examples provided Leverage your expertise in Scala

programming to create and customize your own scalable machine learning algorithms Experiment with different techniques: evaluate their benefits and limitations using real-world financial

applications Get to know the best practices to incorporate new Big Data machine learning in your data-driven enterprise and gain future scalability and maintainability Who This Book Is For

This Learning Path is for engineers and scientists who are familiar with Scala and want to learn how to create, validate, and apply machine learning algorithms. It will also benefit

software developers with a background in Scala programming who want to apply machine learning. What You Will Learn Create Scala web applications that couple with JavaScript libraries such

as D3 to create compelling interactive visualizations Deploy scalable parallel applications using Apache Spark, loading data from HDFS or Hive Solve big data problems with Scala parallel

collections, Akka actors, and Apache Spark clusters Apply key learning strategies to perform technical analysis of financial markets Understand the principles of supervised and unsupervised

learning in machine learning Work with unstructured data and serialize it using Kryo, Protobuf, Avro, and AvroParquet Construct reliable and robust data pipelines and manage data in a data-

driven enterprise Implement scalable model monitoring and alerts with Scala In Detail This Learning Path aims to put the entire world of machine learning with Scala in front of you. Scala

for Data Science, the first module in this course, is a tutorial guide that provides tutorials on some of the most common Scala libraries for data science, allowing you to quickly get up to

speed building data science and data engineering solutions. The second course, Scala for Machine Learning guides you through the process of building AI applications with diagrams, formal

mathematical notation, source code snippets, and useful tips. A review of the Akka framework and Apache Spark clusters concludes the tutorial. The next module, Mastering Scala Machine

Learning, is the final step in this course. It will take your knowledge to next level and help you use the knowledge to build advanced applications such as social media mining, intelligent

news portals, and more. After a quick refresher on functional programming concepts using REPL, you will see some practical examples of setting up the development environment and tinkering

with data. We will then explore working with Spark and MLlib using k-means and decision trees. By the end of this course, you will be a master at Scala machine learning and have enough

expertise to be able to build complex machine learning projects using Scala. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It

includes content from the following Packt products: Scala for Data Science, Pascal Bugnion Scala for Machine Learning, Patrick Nicolas Mastering Scala Machine Learning, Alex Kozlov Style

and approach A tutorial with complete examples, this course will give you the tools to start building useful data engineering and data science solutions straightaway. This course provides

practical examples from the field on how to correctly tackle data analysis problems, particularly for modern Big Data datasets.

This book constitutes the refereed proceedings of the Third International Conference on Data Mining and Big Data, DMBD 2018, held in Shanghai, China, in June 2018. The 74 papers presented

in this volume were carefully reviewed and selected from 126 submissions. They are organized in topical sections named: database, data preprocessing, matrix factorization, data analysis,

visualization, visibility analysis, clustering, prediction, classification, pattern discovery, text mining and knowledge management, recommendation system in social media, deep learning,

big data, Industry 4.0, practical applications

Complete guidance for mastering the tools and techniques of the digital revolution With the digital revolution opening up tremendous opportunities in many fields, there is a growing need for

skilled professionals who can develop data-intensive systems and extract information and knowledge from them. This book frames for the first time a new systematic approach for tackling the

challenges of data-intensive computing, providing decision makers and technical experts alike with practical tools for dealing with our exploding data collections. Emphasizing data-intensive

thinking and interdisciplinary collaboration, The Data Bonanza: Improving Knowledge Discovery in Science, Engineering, and Business examines the essential components of knowledge discovery,

surveys many of the current research efforts worldwide, and points to new areas for innovation. Complete with a wealth of examples and DISPEL-based methods demonstrating how to gain more from

data in real-world systems, the book: Outlines the concepts and rationale for implementing data-intensive computing in organizations Covers from the ground up problem-solving strategies for

data analysis in a data-rich world Introduces techniques for data-intensive engineering using the Data-Intensive Systems Process Engineering Language DISPEL Features in-depth case studies in

customer relations, environmental hazards, seismology, and more Showcases successful applications in areas ranging from astronomy and the humanities to transport engineering Includes sample

program snippets throughout the text as well as additional materials on a companion website The Data Bonanza is a must-have guide for information strategists, data analysts, and engineers in

business, research, and government, and for anyone wishing to be on the cutting edge of data mining, machine learning, databases, distributed systems, or large-scale computing.

Provides an introduction of the data industry to the field of economics This book bridges the gap between economics and data science to help data scientists understand the economics of big

data, and enable economists to analyze the data industry. It begins by explaining data resources and introduces the data asset. This book defines a data industry chain, enumerates data

enterprises' business models versus operating models, and proposes a mode of industrial development for the data industry. The author describes five types of enterprise agglomerations, and

multiple industrial cluster effects. A discussion on the establishment and development of data industry related laws and regulations is provided. In addition, this book discusses several

scenarios on how to convert data driving forces into productivity that can then serve society. This book is designed to serve as a reference and training guide for data scientists, data-

oriented managers and executives, entrepreneurs, scholars, and government employees. Defines and develops the concept of a "Data Industry," and explains the economics of data to data

scientists and statisticians Includes numerous case studies and examples from a variety of industries and disciplines Serves as a useful guide for practitioners and entrepreneurs in the

business of data technology The Data Industry: The Business and Economics of Information and Big Data is a resource for practitioners in the data science industry, government, and students

in economics, business, and statistics. CHUNLEI TANG, Ph.D., is a research fellow at Harvard University. She is the co-founder of Fudan's Institute for Data Industry and proposed the

concept of the "data industry". She received a Ph.D. in Computer and Software Theory in 2012 and a Master of Software Engineering in 2006 from Fudan University, Shanghai, China.

The Functional Art

Assuring Data Content, Data Structures and Quality

Data-Driven Design and Construction

A History of Vision and Reason since 1945

Third International Conference, DMBD 2018, Shanghai, China, June 17–22, 2018, Proceedings

Using Game Mechanics to Build a Better Business

Data Visualisation

"Science in the Archives" reveals affinities and continuities among the sciences of the archives, across many disciplines and centuries, in order to present a better picture of essential archival practices and, thereby, the meaning of science. For in both the natural and human sciences, archives of the most diverse forms make cumulative, collective knowledge possible. Yet in contrast to laboratories, observatories, or the field, archives have yet to be studied across the board as central sites of science. The volume covers episodes in the history of astronomy, geology, genetics, classical philology, climatology, history, medicine, and ancient natural philosophy, as well as fundamental practices such as collecting, retrieval strategies, and data mining. The time frame spans doxology in Greco-Roman antiquity to NSA surveillance techniques and the quantified-self movement. Each chapter explores the practices, politics, economics, and open-ended potential of the sciences of the archives, making this the first book devoted to the role of archives in the natural and human sciences.

Beautiful Data is both a history of big data and interactivity, and a sophisticated meditation on ideas about vision and cognition in the second half of the twentieth century. Contending that our forms of attention, observation, and truth are contingent and contested, Orit Halpern historicizes the ways that we are trained, and train ourselves, to observe and analyze the world. Tracing the postwar impact of cybernetics and the communication sciences on the social and human sciences, design, arts, and urban planning, she finds a radical shift in attitudes toward recording and displaying information.

These changed attitudes produced what she calls communicative objectivity: new forms of observation, rationality, and economy based on the management and analysis of data. Halpern complicates assumptions about the value of data and visualization, arguing that changes in how we manage and train perception, and define reason and intelligence, are also transformations in governmentality. She also challenges the paradoxical belief that we are experiencing a crisis of attention caused by digital media, a crisis that can be resolved only through intensified media consumption.

"Image Studies provides an engaging introduction to visual studies analysis and an account of existing and emergent visual culture debates, along with chapters on a range of topics, including: consumer culture and identity; photography and digital imaging; painting and drawing; the moving image; the relationship between image and text (including reference to text in art, comics and animation); and scientific imaging. Written in an engaging and accessible way, the text will also include extracts of existing critical materials. Each chapter will include key set readings, including short extracts from existing literatures with accompanying study notes and questions. The chapters will also include a range of critical and creative tasks, designed to bring the academic study of visual culture into direct contact with practical aspects of visual culture and image-making. Image Studies is a new text aimed predominantly at undergraduate students in visual culture, but which will also be useful for media studies students and arts students more generally"--

Improving Knowledge Discovery in Science, Engineering, and Business

International Conference, Industrial IoT 2016, GuangZhou, China, March 25-26, 2016, Revised Selected Papers

The Data Bonanza