
Learning From Data A Short Course Yaser S Abu Mostafa

Data Feminism

Dive Into Deep Learning

Concepts, Tools, and Techniques to Build Intelligent Systems

Processing Techniques in Sensor Networks

Making Sense of Artificial Intelligence, Machine Learning and Data Analytics

Learning from Data

Learning from Data Streams

Learner-Centered Teaching

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Learning from Data

Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow

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Statistics: Learning from Data

Advanced Analytics with Spark

The Deep Learning Revolution

Hands-On Transfer Learning with Python

Stuff You Should Know

with Applications in R

R for Data Science

A Data Visualization Guide for Business Professionals

Machine Learning

Implement advanced deep learning and neural network models using TensorFlow and Keras

Machine Learning for Algorithmic Trading - Second Edition
Understanding Machine Learning
Storytelling with Data
From Theory to Algorithms
Concepts, Theory, and Methods
A Guide for Data Scientists
Reinforcement Learning, second edition
How to Navigate Clueless Colleagues, Lunch-Stealing Bosses, and the Rest of Your Life at Work
Five Key Changes to Practice
Introduction to Machine Learning with Python
Tools for Engagement
An Introduction to Statistical Learning
Algorithms, Worked Examples, and Case Studies

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Data Feminism IntroBooks

Many texts are excellent sources of knowledge about individual statistical tools, but the art of data analysis is about choosing and using multiple tools. Instead of presenting isolated techniques, this text emphasizes problem solving strategies that address the many issues arising when developing multivariable models using real data and not standard textbook examples.

It includes imputation methods for dealing with missing data effectively, methods for dealing with nonlinear relationships and for making the estimation of transformations a formal part of the modeling process, methods for dealing with "too many variables to analyze and not enough observations," and powerful model validation techniques based on the bootstrap. This text realistically deals with model uncertainty and its effects on inference to achieve "safe data mining".
Dive Into Deep Learning Packt Publishing Ltd

A comprehensive introduction to machine

learning that uses probabilistic models and inference as a unifying approach. Today's Web-enabled deluge of electronic data calls for automated methods of data analysis. Machine learning provides these, developing methods that can automatically detect patterns in data and then use the uncovered patterns to predict future data. This textbook offers a comprehensive and self-contained introduction to the field of machine learning, based on a unified, probabilistic approach. The coverage combines breadth and depth, offering necessary background material on such topics as probability,

optimization, and linear algebra as well as discussion of recent developments in the field, including conditional random fields, L1 regularization, and deep learning. The book is written in an informal, accessible style, complete with pseudo-code for the most important algorithms. All topics are copiously illustrated with color images and worked examples drawn from such application domains as biology, text processing, computer vision, and robotics. Rather than providing a cookbook of different heuristic methods, the book stresses a principled model-based approach, often using the language of graphical models to specify models in a concise and intuitive way. Almost all the models described have been implemented in a MATLAB software package—PMTK (probabilistic modeling toolkit)—that is freely available online. The book is suitable for upper-level undergraduates with an introductory-level college math background and beginning graduate students.

Concepts, Tools, and Techniques to Build Intelligent Systems Ballantine Books

The second edition of a comprehensive introduction to machine learning

approaches used in predictive data analytics, covering both theory and practice. Machine learning is often used to build predictive models by extracting patterns from large datasets. These models are used in predictive data analytics applications including price prediction, risk assessment, predicting customer behavior, and document classification. This introductory textbook offers a detailed and focused treatment of the most important machine learning approaches used in predictive data analytics, covering both theoretical concepts and practical applications. Technical and mathematical material is augmented with explanatory worked examples, and case studies illustrate the application of these models in the broader business context. This second edition covers recent developments in machine learning, especially in a new chapter on deep learning, and two new chapters that go beyond predictive analytics to cover unsupervised learning and reinforcement learning.

Processing Techniques in Sensor Networks Cengage Learning
Summary Deep Learning with Python

introduces the field of deep learning using the Python language and the powerful Keras library. Written by Keras creator and Google AI researcher François Chollet, this book builds your understanding through intuitive explanations and practical examples. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Machine learning has made remarkable progress in recent years. We went from near-unusable speech and image recognition, to near-human accuracy. We went from machines that couldn't beat a serious Go player, to defeating a world champion. Behind this progress is deep learning—a combination of engineering advances, best practices, and theory that enables a wealth of previously impossible smart applications. About the Book Deep Learning with Python introduces the field of deep learning using the Python language and the powerful Keras library. Written by Keras creator and Google AI researcher François Chollet, this book builds your understanding through intuitive explanations and practical examples. You'll explore challenging concepts and practice with applications in

computer vision, natural-language processing, and generative models. By the time you finish, you'll have the knowledge and hands-on skills to apply deep learning in your own projects. What's Inside Deep learning from first principles Setting up your own deep-learning environment Image-classification models Deep learning for text and sequences Neural style transfer, text generation, and image generation About the Reader Readers need intermediate Python skills. No previous experience with Keras, TensorFlow, or machine learning is required. About the Author François Chollet works on deep learning at Google in Mountain View, CA. He is the creator of the Keras deep-learning library, as well as a contributor to the TensorFlow machine-learning framework. He also does deep-learning research, with a focus on computer vision and the application of machine learning to formal reasoning. His papers have been published at major conferences in the field, including the Conference on Computer Vision and Pattern Recognition (CVPR), the Conference and Workshop on Neural Information Processing Systems (NIPS),

the International Conference on Learning Representations (ICLR), and others. Table of Contents PART 1 - FUNDAMENTALS OF DEEP LEARNING What is deep learning? Before we begin: the mathematical building blocks of neural networks Getting started with neural networks Fundamentals of machine learning PART 2 - DEEP LEARNING IN PRACTICE Deep learning for computer vision Deep learning for text and sequences Advanced deep-learning best practices Generative deep learning Conclusions appendix A - Installing Keras and its dependencies on Ubuntu appendix B - Running Jupyter notebooks on an EC2 GPU instance [Making Sense of Artificial Intelligence, Machine Learning and Data Analytics](#) John Wiley & Sons Master the world of Machine Learning and Data Science with this comprehensive 2-in-1 bundle. If you want to learn more about Machine Learning and Data Science or how to master them with Python quickly and easily, then keep reading. Data Science and Machine Learning are the biggest buzzwords in the business world nowadays. Many businesses know the importance of collecting information, but

as they can collect so much data in a short period, the real question is: "what is the next step?" Data Science includes all the different procedures that must be implemented when working with data: collecting and cleaning them, analyzing them, applying Machine Learning algorithms and models, and then presenting your findings from the analysis with some good data visualizations. Machines and automation represent a huge part of our daily life. They are becoming part of our experience, and existence. Artificial Intelligence is currently one of the most thriving fields any programmer would wish to delve into, and for a good reason: this is the future! Simply put, Machine Learning is about teaching machines to think and make decisions as we would. The difference between the way machines learn and the way we do is that while for the most part we learn from experiences, machines learn from data. In book one, PYTHON MACHINE LEARNING, you will learn: What is Machine Learning and how it is applied in real-world situations Understanding the differences between Machine Learning, Deep Learning, and Artificial Intelligence

Machine learning training models, Regression techniques and Linear Regression in Python How to use Lists and Modules in Python The 12 essential libraries for Machine Learning in Python Artificial Neural Networks And Much More! In book two, PYTHON DATA SCIENCE, you will learn: What Data Science is all about and why so many companies are using it to give them a competitive edge. Why Python and how to use it to implement Data Science The main Data Structures & Object-Oriented Programming, Functions and Modules in Python with practical codes and exercises The 7 most important algorithms and models in Data Science Data Aggregation, Group Operations, Databases and Data in the Cloud 9 important Data Mining techniques in Data Science And So Much More! Where most books only focus on how collecting and cleaning the data, this book goes further, providing guidance on how to perform a proper analysis in order to extract precious information that may be vital for a business. Don't miss the opportunity to master the key points of Machine Learning technology and understand how researchers are breaking the boundaries

of Data Science to mimic human intelligence in machines. Even if some concepts of Machine Learning algorithms can appear complex to most computer programming beginners, this book takes the time to explain them in a simple and concise way. Understanding Machine Learning and Data Science is easier than it looks. You just need the right guidance. And this book provides all the knowledge you need in a simple and practical way. Regardless of your previous experience, you will learn, the techniques to manipulate and process datasets, the principles of Python programming, and its most important real-world applications. Would You Like To Know More? Scroll Up and Click on the BUY NOW Button to Get Your Copy!

Learning from Data Cambridge University Press

From news and speeches to informal chatter on social media, natural language is one of the richest and most underutilized sources of data. Not only does it come in a constant stream, always changing and adapting in context; it also contains information that is not conveyed by traditional data sources. The key to

unlocking natural language is through the creative application of text analytics. This practical book presents a data scientist's approach to building language-aware products with applied machine learning. You'll learn robust, repeatable, and scalable techniques for text analysis with Python, including contextual and linguistic feature engineering, vectorization, classification, topic modeling, entity resolution, graph analysis, and visual steering. By the end of the book, you'll be equipped with practical methods to solve any number of complex real-world problems. Preprocess and vectorize text into high-dimensional feature representations Perform document classification and topic modeling Steer the model selection process with visual diagnostics Extract key phrases, named entities, and graph structures to reason about data in text Build a dialog framework to enable chatbots and language-driven interaction Use Spark to scale processing power and neural networks to scale model complexity *Learning from Data Streams* Learning from Data A Short Course Statistics: Learning from Data

Through a series of recent breakthroughs, deep learning has boosted the entire field of machine learning. Now, even programmers who know close to nothing about this technology can use simple, efficient tools to implement programs capable of learning from data. This practical book shows you how. By using concrete examples, minimal theory, and two production-ready Python frameworks—Scikit-Learn and TensorFlow—author Aurélien Géron helps you gain an intuitive understanding of the concepts and tools for building intelligent systems. You'll learn a range of techniques, starting with simple linear regression and progressing to deep neural networks. With exercises in each chapter to help you apply what you've learned, all you need is programming experience to get started. Explore the machine learning landscape, particularly neural nets Use Scikit-Learn to track an example machine-learning project end-to-end Explore several training models, including support vector machines, decision trees, random forests, and ensemble methods Use the TensorFlow library to build and train neural nets Dive into neural net architectures,

including convolutional nets, recurrent nets, and deep reinforcement learning Learn techniques for training and scaling deep neural nets
Learner-Centered Teaching Cambridge University Press
 STATISTICS: LEARNING FROM DATA, by respected and successful author Roxy Peck, resolves common problems faced by both students and instructors with an innovative approach to elementary statistics. Peck tackles the areas students struggle with most--probability, hypothesis testing, and selecting an appropriate method of analysis--unlike any text on the market. Probability coverage is based on current research that shows how students best learn the subject. Two unique chapters, one on statistical inference and another on learning from experiment data, address two common areas of student confusion: choosing a particular inference method and using inference methods with experimental data. Supported by learning objectives, real-data examples and exercises, and technology notes, this brand new text guides students in gaining conceptual understanding, mechanical proficiency, and the ability to put

knowledge into practice. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

A Plain English Introduction (Third Edition) Flatiron Books

For courses in introductory statistics. The Art and Science of Learning from Data Statistics: The Art and Science of Learning from Data, Fourth Edition, takes a conceptual approach, helping students understand what statistics is about and learning the right questions to ask when analyzing data, rather than just memorizing procedures. This book takes the ideas that have turned statistics into a central science in modern life and makes them accessible, without compromising the necessary rigor. Students will enjoy reading this book, and will stay engaged with its wide variety of real-world data in the examples and exercises. The authors believe that it's important for students to learn and analyze both quantitative and categorical data. As a result, the text pays greater attention to the analysis of proportions than many other introductory statistics texts. Concepts are introduced first with categorical data, and then with

quantitative data. MyStatLab™ not included. Students, if MyStatLab is a recommended/mandatory component of the course, please ask your instructor for the correct ISBN and course ID. MyStatLab should only be purchased when required by an instructor. Instructors, contact your Pearson representative for more information. MyStatLab is an online homework, tutorial, and assessment product designed to personalize learning and improve results. With a wide range of interactive, engaging, and assignable activities, students are encouraged to actively learn and retain tough course concepts.

Patterns for Learning from Data at Scale Springer Science & Business Media
With detailed notes, tables, and examples, this handy reference will help you navigate the basics of structured machine learning. Author Matt Harrison delivers a valuable guide that you can use for additional support during training and as a convenient resource when you dive into your next machine learning project. Ideal for programmers, data scientists, and AI engineers, this book includes an overview of the machine learning process and walks

you through classification with structured data. You'll also learn methods for clustering, predicting a continuous value (regression), and reducing dimensionality, among other topics. This pocket reference includes sections that cover: Classification, using the Titanic dataset Cleaning data and dealing with missing data Exploratory data analysis Common preprocessing steps using sample data Selecting features useful to the model Model selection Metrics and classification evaluation Regression examples using k-nearest neighbor, decision trees, boosting, and more Metrics for regression evaluation Clustering Dimensionality reduction Scikit-learn pipelines
Regression Modeling Strategies "O'Reilly Media, Inc."

From the duo behind the massively successful and award-winning podcast Stuff You Should Know comes an unexpected look at things you thought you knew. Josh Clark and Chuck Bryant started the podcast Stuff You Should Know back in 2008 because they were curious—curious about the world around them, curious about what they might have missed in their formal educations, and curious to dig

deeper on stuff they thought they understood. As it turns out, they aren't the only curious ones. They've since amassed a rabid fan base, making Stuff You Should Know one of the most popular podcasts in the world. Armed with their inquisitive natures and a passion for sharing, they uncover the weird, fascinating, delightful, or unexpected elements of a wide variety of topics. The pair have now taken their near-boundless "whys" and "hows" from your earbuds to the pages of a book for the first time—featuring a completely new array of subjects that they've long wondered about and wanted to explore. Each chapter is further embellished with snappy visual material to allow for rabbit-hole tangents and digressions—including charts, illustrations, sidebars, and footnotes. Follow along as the two dig into the underlying stories of everything from the origin of Murphy beds, to the history of facial hair, to the psychology of being lost. Have you ever wondered about the world around you, and wished to see the magic in everyday things? Come get curious with Stuff You Should Know. With Josh and Chuck as your guide, there's something interesting about everything (...except

maybe jackhammers).

Linear Algebra and Learning from Data MIT Press

Learning from Data is the concept which has developed recently. Data is a concept which is raw in nature and it has been given meaning only after compilation and currently, after globalization. The amount of data in all the sectors have grown enormously. Learning from Data is a very popular concept now as companies are saving data only to extract and make analysis out of the same on which various other factors are dependent. The other factors are majorly competitive basis and help big tier companies to study the market and grow even more in the present competitive era. With so much data around, another important aspect is the protection of data. To make use of data, the next major factor is its protection as since the competition exists in all fields; the data field is no exception. Data is the current trending concept all over the globe and research over the same will undoubtedly fetch more of analysis.

Learning from Data Cengage Learning

In this practical book, four Cloudera data scientists present a set of self-contained

patterns for performing large-scale data analysis with Spark. The authors bring Spark, statistical methods, and real-world data sets together to teach you how to approach analytics problems by example. You'll start with an introduction to Spark and its ecosystem, and then dive into patterns that apply common techniques—classification, collaborative filtering, and anomaly detection among others—to fields such as genomics, security, and finance. If you have an entry-level understanding of machine learning and statistics, and you program in Java, Python, or Scala, you'll find these patterns useful for working on your own data applications. Patterns include: Recommending music and the Audioscrobbler data set Predicting forest cover with decision trees Anomaly detection in network traffic with K-means clustering Understanding Wikipedia with Latent Semantic Analysis Analyzing co-occurrence networks with GraphX Geospatial and temporal data analysis on the New York City Taxi Trips data Estimating financial risk through Monte Carlo simulation Analyzing genomics data and the BDG project Analyzing

neuroimaging data with PySpark and Thunder

Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow NLITX

Analytics of Life provides the reader with a broad overview of the field of data analytics and artificial intelligence. It provides the layperson an understanding of the various stages of artificial intelligence, the risks and powerful benefits. And it provides a way to look at big data and machine learning that enables us to make the most of this exciting new realm of technology in our day-to-day jobs and our small businesses. Questions you can find answers* * What is artificial intelligence (AI)? * What is the difference between AI, machine learning and data analytics? * Which jobs AI will replace, which jobs are safe from data analytics revolution? * Why data analytics is the best career move? * How can I apply data analytics in my job or small business? Who is this book for? * Managers and business professionals * Marketers, product managers, and business strategists * Entrepreneurs, founders and startups team members * Consultants, advisors and educators * Almost anybody

who has an interest in the future. According to an article by Cade Metz in The New York Times, "Researchers say computer systems are learning from lots and lots of digitized books and news articles that could bake old attitudes into new technology." Oxford University professor Nick Bostrom argues that if machine brains surpassed human brains in general intelligence, then this new superintelligence could become extremely powerful - possibly beyond our control. MIT professor Max Tegmark describes and illuminates the recent, ground-breaking advances in Artificial Intelligence and how it might overtake human intelligence. As Oxford University economist Daniel Susskind points out, technological progress could bring about unprecedented prosperity, solving one of humanity's oldest problems: how to make sure that everyone has enough to live on. Distinguished AI researcher and professor of computer science at UC Berkeley, Russell Stuart suggests that we can rebuild AI on a new foundation, according to which machines are designed to be inherently uncertain about the human preferences they are required to satisfy.

Industry experts claim that AI will have a negative impact on blue-collar jobs, but Mert predicts that Americans and Europeans will experience a strong impact on white-collar jobs as well. And Mert also provides research results and a clear description of which jobs will be affected and how soon, which jobs could be enhanced with AI. Analytics of Life also provides solutions and insight into some of the most profound changes to come in human history.

Deep Learning with Python Simon and Schuster

A new way of thinking about data science and data ethics that is informed by the ideas of intersectional feminism. Today, data science is a form of power. It has been used to expose injustice, improve health outcomes, and topple governments. But it has also been used to discriminate, police, and surveil. This potential for good, on the one hand, and harm, on the other, makes it essential to ask: Data science by whom? Data science for whom? Data science with whose interests in mind? The narratives around big data and data science are overwhelmingly white, male, and techno-heroic. In Data Feminism,

Catherine D'Ignazio and Lauren Klein present a new way of thinking about data science and data ethics—one that is informed by intersectional feminist thought. Illustrating data feminism in action, D'Ignazio and Klein show how challenges to the male/female binary can help challenge other hierarchical (and empirically wrong) classification systems. They explain how, for example, an understanding of emotion can expand our ideas about effective data visualization, and how the concept of invisible labor can expose the significant human efforts required by our automated systems. And they show why the data never, ever "speak for themselves." Data Feminism offers strategies for data scientists seeking to learn how feminism can help them work toward justice, and for feminists who want to focus their efforts on the growing field of data science. But Data Feminism is about much more than gender. It is about power, about who has it and who doesn't, and about how those differentials of power can be challenged and changed. *Statistics: Learning from Data* MIT Press An Introduction to Statistical Learning provides an accessible overview of the

field of statistical learning, an essential toolset for making sense of the vast and complex data sets that have emerged in fields ranging from biology to finance to marketing to astrophysics in the past twenty years. This book presents some of the most important modeling and prediction techniques, along with relevant applications. Topics include linear regression, classification, resampling methods, shrinkage approaches, tree-based methods, support vector machines, clustering, and more. Color graphics and real-world examples are used to illustrate the methods presented. Since the goal of this textbook is to facilitate the use of these statistical learning techniques by practitioners in science, industry, and other fields, each chapter contains a tutorial on implementing the analyses and methods presented in R, an extremely popular open source statistical software platform. Two of the authors co-wrote *The Elements of Statistical Learning* (Hastie, Tibshirani and Friedman, 2nd edition 2009), a popular reference book for statistics and machine learning researchers. *An Introduction to Statistical Learning* covers many of the same topics,

but at a level accessible to a much broader audience. This book is targeted at statisticians and non-statisticians alike who wish to use cutting-edge statistical learning techniques to analyze their data. The text assumes only a previous course in linear regression and no knowledge of matrix algebra.

Statistics: Learning from Data Springer Science & Business Media

Create learning experiences that transform not only learning, but life itself. Learn about, improve, and expand your world of learning. This hands-on companion to the runaway best-seller, *Deep Learning: Engage the World Change the World*, provides an essential 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. Loaded with tips, tools, protocols, and real-world examples, the easy-to-use guide has everything educators need to construct and drive meaningful deep learning experiences that give purpose, unleash student potential, and prepare students to become problem-solving change agents in a global society.

Advanced Analytics with Spark Corwin Press

Statistics has played a leading role in our scientific understanding of the world for centuries, yet we are all familiar with the way statistical claims can be sensationalised, particularly in the media. In the age of big data, as data science becomes established as a discipline, a basic grasp of statistical literacy is more important than ever. In *How to Tell the Truth with Statistics*, David Spiegelhalter guides the reader through the essential principles we need in order to derive knowledge from data. Drawing on real world problems to introduce conceptual issues, he shows us how statistics can help us determine the luckiest passenger on the Titanic, whether serial killer Harold Shipman could have been caught earlier, and if screening for ovarian cancer is beneficial. How many trees are there on the planet? Do busier hospitals have higher survival rates? Why do old men have big ears? Spiegelhalter reveals the answers to these and many other questions - questions that can only be addressed using statistical science.

The Deep Learning Revolution Wellesley-

Cambridge Press

Data science libraries, frameworks, modules, and toolkits are great for doing data science, but they're also a good way to dive into the discipline without actually understanding data science. In this book, you'll learn how many of the most fundamental data science tools and algorithms work by implementing them from scratch. If you have an aptitude for mathematics and some programming skills, author Joel Grus will help you get comfortable with the math and statistics at the core of data science, and with hacking skills you need to get started as a data scientist. Today's messy glut of data holds answers to questions no one's even thought to ask. This book provides you with the know-how to dig those answers out. Get a crash course in Python Learn the basics of linear algebra, statistics, and probability—and understand how and when they're used in data science Collect, explore, clean, munge, and manipulate data Dive into the fundamentals of machine learning Implement models such as k-nearest Neighbors, Naive Bayes, linear and logistic regression, decision trees, neural networks, and clustering

Explore recommender systems, natural language processing, network analysis, MapReduce, and databases
Hands-On Transfer Learning with Python
Cengage Learning

From the creator of the popular website Ask a Manager and New York's work-advice columnist comes a witty, practical guide to 200 difficult professional conversations—featuring all-new advice! There's a reason Alison Green has been called "the Dear Abby of the work world." Ten years as a workplace-advice columnist have taught her that people avoid awkward conversations in the office because they simply don't know what to say. Thankfully, Green does—and in this incredibly helpful book, she tackles the tough discussions you may need to have during your career. You'll learn what to say when • coworkers push their work on you—then take credit for it • you accidentally trash-talk someone in an email then hit "reply all" • you're being micromanaged—or not being managed at all • you catch a colleague in a lie • your boss seems unhappy with your work • your cubemate's loud speakerphone is making you homicidal • you got drunk at

the holiday party Praise for Ask a Manager "A must-read for anyone who works . . . [Alison Green's] advice boils down to the idea that you should be professional (even when others are not) and that communicating in a straightforward manner with candor and kindness will get you far, no matter where you work."—Booklist (starred review) "The author's friendly, warm, no-nonsense writing is a pleasure to read, and her advice can be widely applied to relationships in all areas of readers' lives. Ideal for anyone new to the job market or new to management, or anyone hoping to improve their work experience."—Library Journal (starred review) "I am a huge fan of Alison Green's Ask a Manager column. This book is even better. It teaches us how to deal with many of the most vexing big and little problems in our workplaces—and to do so with grace, confidence, and a sense of humor."—Robert Sutton, Stanford professor and author of The No Asshole Rule and The Asshole Survival Guide "Ask a Manager is the ultimate playbook for navigating the traditional workforce in a diplomatic but firm way."—Erin Lowry, author of Broke Millennial: Stop Scraping

By and Get Your Financial Life Together

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