## *Introduction To Algorithmic Marketing Artificial Intelligence For Marketing Operations*

Make personalized marketing a reality with this practical guide to predictive analytics Predictive Marketing is a predictive analytics primer for organizations large and small, offering practical tips and actionable strategies for implementing more personalized marketing immediately. The marketing paradigm is changing, and this book provides a blueprint for navigating the transition from creative- to data-driven marketing, from one-size-fits-all to one-on-one, and from marketing campaigns to real-time customer experiences. You'll learn how to use machine-learning technologies to improve customer acquisition and customer growth, and how to identify and re-engage at-risk or lapsed customers by implementing an easy, automated approach to predictive analytics. Much more than just theory and testament to the power of personalized marketing, this book focuses on action, helping you understand and actually begin using this revolutionary approach to the customer experience. Predictive analytics can finally make personalized marketing a reality. For the first time, predictive marketing is accessible to all marketers, not just those at large corporations — in fact, many smaller organizations are leapfrogging their larger counterparts with innovative programs. This book shows you how to bring predictive analytics to your organization, with actionable guidance that get you started today. Implement predictive marketing at any size organization Deliver a more personalized marketing experience Automate predictive analytics with machine learning technology Base marketing decisions on concrete data rather than unproven ideas Marketers have long been talking about delivering personalized experiences across channels. All marketers want to deliver happiness, but most still employ a one-size-fits-all approach. Predictive Marketing provides the information and insight you need to lift your organization out of the campaign rut and into the rarefied atmosphere of a truly personalized customer experience.

New edition of the bestselling guide to deep reinforcement learning and how it's used to solve complex real-world problems. Revised and expanded to include multi-agent methods, discrete optimization, RL in robotics, advanced exploration techniques, and more Key Features Second edition of the bestselling introduction to deep reinforcement learning, expanded with six new chapters Learn advanced exploration techniques including noisy networks, pseudo-count, and network distillation methods Apply RL methods to cheap hardware robotics platforms Book Description Deep Reinforcement Learning Hands-On, Second Edition is an updated and expanded version of the bestselling guide to the very latest reinforcement learning (RL) tools and techniques. It provides you with an introduction to the fundamentals of RL, along with the hands-on ability to code intelligent learning agents to perform a range of practical tasks. With six new chapters devoted to a variety of up-to-the-minute developments in RL, including discrete optimization (solving the Rubik's Cube), multi-agent methods, Microsoft's TextWorld environment, advanced exploration techniques, and more, you will come away from this book with a deep understanding of the latest innovations in this emerging field. In addition, you will gain actionable insights into such topic areas as deep Q-networks, policy gradient methods, continuous control problems, and highly scalable, non-gradient methods. You will also discover how to build a real hardware robot trained with RL for less than $100 and solve the Pong environment in just 30 minutes of training using step-by-step code optimization. In short, Deep Reinforcement Learning Hands-On, Second Edition, is your companion to navigating the exciting complexities of RL as it helps you attain experience and knowledge through real-world examples. What you will learn Understand the deep learning context of RL and implement complex deep learning models Evaluate RL methods including cross-entropy, DQN, actor-critic, TRPO, PPO, DDPG, D4PG, and others Build a practical hardware robot trained with RL methods for less than $100 Discover Microsoft's TextWorld environment, which is an interactive fiction games platform Use discrete optimization in RL to solve a Rubik's Cube Teach your agent to play Connect 4 using AlphaGo Zero Explore the very latest deep RL research on topics including AI chatbots Discover advanced exploration techniques, including noisy networks and network distillation techniques Who this book is for Some fluency in Python is assumed. Sound understanding of the fundamentals of deep learning will be helpful. This book is an introduction to deep RL and requires no background in RL

Programmatic advertising is the most exciting thing that happened in marketing in a long time- perhaps since the advent of mass advertising itself. This book offers the first comprehensive introduction to the world of programmatic advertising. If you are new to this revolutionary technology, it will help you get quickly up to speed. The book is intentionally relatively short and dense, so it can be read over a weekend - and then kept on your desk for reference. Here's a quick overview: Chapter one outlines the basic technologies enabling programmatic advertising - such as cookies, pixels, banner ads, or ad exchanges. Chapter two introduces the programmatic ecosystem and its various players, including publishers, advertisers, SSPs, DSPs, DMPs, agency trading desks, and the most important industry bodies. Chapter three is dedicated to programmatic ad trading, with special attention given to the real-time bidding (RTB) auction, role of the Deal ID, and publisher prioritization including header bidding. Chapter four is all about data and ad targeting. Retargeting and various prospecting tactics are covered, including contextual targeting, behavioral targeting, and look-a-like modeling. Chapter five expands the scope of this book into mobile. Mobile cookies, cross-device identification solutions, or location data are covered here. Chapter six offers an overview of the current issues discussed across the digital ad industry - including fraud, viewability, attribution, ad blocking, or privacy. Chapter seven is about new formats available programmatically, such as rich media, video, or native. It also covers new programmatic channels including TV, audio or print."

Practical Machine Learning for Data Analysis Using Python is a problem solver's guide for creating real-world intelligent systems. It provides a comprehensive approach with concepts, practices, hands-on examples, and sample code. The book teaches readers the vital skills required to understand and solve different problems with machine learning. It teaches machine learning techniques necessary to become a successful practitioner, through the presentation of real-world case studies in Python machine learning ecosystems. The book also focuses on building a foundation of machine learning knowledge to solve different real-world case studies across various fields, including biomedical signal analysis, healthcare, security, economics, and finance. Moreover, it covers a wide range of machine learning models, including regression, classification, and forecasting. The goal of the book is to help a broad range of readers, including IT professionals, analysts, developers, data scientists, engineers, and graduate students, to solve their own real-world problems. Offers a comprehensive overview of the application of machine learning tools in data analysis across a wide range of subject areas Teaches readers how to apply machine learning techniques to biomedical signals, financial data, and healthcare data Explores important classification and regression algorithms as well as other machine learning techniques Explains how to use Python to handle data extraction, manipulation, and exploration

techniques, as well as how to visualize data spread across multiple dimensions and extract useful features

Algorithmic Regulation

A Guide to Machine Learning Engineering

Introduction to Algorithmic Marketing

Strategy and Leadership When Algorithms and Networks Run the World

Artificial Intelligence for Marketing Operations

How Search Engines Reinforce Racism

*Optimize your marketing strategies through analytics and machine learning Key FeaturesUnderstand how data science drives successful marketing campaignsUse machine learning for better customer engagement, retention, and product recommendationsExtract insights from your data to optimize marketing strategies and increase profitabilityBook Description Regardless of company size, the adoption of data science and machine learning for marketing has been rising in the industry. With this book, you will learn to implement data science techniques to understand the drivers behind the successes and failures of marketing campaigns. This book is a comprehensive guide to help you understand and predict customer behaviors and create more effectively targeted and personalized marketing strategies. This is a practical guide to performing simple-to-advanced tasks, to extract hidden insights from the data and use them to make smart business decisions. You will understand what drives sales and increases customer engagements for your products. You will learn to implement machine learning to forecast which customers are more likely to engage with the products and have high lifetime value. This book will also show you how to use machine learning techniques to understand different customer segments and recommend the right products for each customer. Apart from learning to gain insights into consumer behavior using exploratory analysis, you will also learn the concept of A/B testing and implement it using Python and R. By the end of this book, you will be experienced enough with various data science and machine learning techniques to run and manage successful marketing campaigns for your business. What you will learnLearn how to compute and visualize marketing KPIs in Python and RMaster what drives successful marketing campaigns with data scienceUse machine learning to predict customer engagement and lifetime valueMake product recommendations that customers are most likely to buyLearn how to use A/B testing for better marketing decision makingImplement machine learning to understand different customer segmentsWho this book is for If you are a marketing professional, data scientist, engineer, or a student keen to learn how to apply data science to marketing, this book is what you need! It will be beneficial to have some basic knowledge of either Python or R to work through the examples. This book will also be beneficial for beginners as it covers basic-to-advanced data science concepts and applications in marketing with real-life examples.*

*This book provides an introduction to quantitative marketing with Python. The book presents a hands-on approach to using Python for real marketing questions, organized by key topic areas. Following the Python scientific computing movement toward reproducible research, the book presents all analyses in Colab notebooks, which integrate code, figures, tables, and annotation in a single file. The code notebooks for each chapter may be copied, adapted, and reused in one's own analyses. The book also introduces the usage of machine learning predictive models using the Python sklearn package in the context of marketing research. This book is designed for three groups of readers: experienced marketing researchers who wish to learn to program in Python, coming from tools and languages such as R, SAS, or SPSS; analysts or students who already program in Python and wish to learn about marketing applications; and undergraduate or graduate marketing students with little or no programming background. It presumes only an introductory level of familiarity with formal statistics and contains a minimum of mathematics.*

*Introduces machine learning and its algorithmic paradigms, explaining the principles behind automated learning approaches and the considerations underlying their usage.*

*A revealing look at how negative biases against women of color are embedded in search engine results and algorithms Run a Google search for "black girls"—what will you find? "Big Booty" and other sexually explicit terms are likely to come up as top search terms. But, if you type in "white girls," the results are radically different. The suggested porn sites and un-moderated discussions about "why black women are so sassy" or "why black women are so angry" presents a disturbing portrait of black womanhood in modern society. In Algorithms of Oppression, Safiya Umoja Noble challenges the idea that search engines like Google offer an equal playing field for all forms of ideas, identities, and activities. Data discrimination is a real social problem; Noble argues that the combination of private interests in promoting certain sites, along with the monopoly status of a relatively small number of Internet search engines, leads to a biased set of search algorithms that privilege whiteness and discriminate against people of color, specifically women of color. Through an analysis of textual and media searches as well as extensive research on paid online advertising, Noble exposes a culture of racism and sexism in the way discoverability is created online. As search engines and their related companies grow in importance—operating as a source for email, a major vehicle for primary and secondary school learning, and beyond—understanding and reversing these disquieting trends and discriminatory practices is of utmost importance. An original, surprising and, at times, disturbing account of bias on the internet, Algorithms of Oppression contributes to our understanding of how racism is created, maintained, and disseminated in the 21st century.*

*Understand the Marketing Revelation That Commercialized the Internet*

*Artificial Intelligence in Asset Management*

*Data Science for Marketing Analytics*

*Competing in the Age of AI*

*Enterprise Artificial Intelligence Transformation*

*Improve your marketing strategies with machine learning using Python and R*

*Easy Ways Every Marketer Can Use Customer Analytics and Big Data*

Explore new and more sophisticated tools that reduce your marketing analytics efforts and give you precise results Key FeaturesStudy new techniques for marketing analyticsExplore uses of machine learning to power your marketing analysesWork through each stage of data analytics with the help of multiple examples and exercisesBook Description Data Science for Marketing Analytics covers every stage of data analytics, from working with a raw dataset to segmenting a population and modeling different parts of the population based on the segments. The book starts by teaching you how to use Python libraries, such as pandas and Matplotlib, to read data from Python, manipulate it, and create plots, using both categorical and continuous variables. Then, you'll learn how to segment a population into groups and use different clustering techniques to evaluate customer segmentation. As you make your way through the chapters, you'll explore ways to evaluate and select the best segmentation approach, and go on to create a linear regression model on customer value data to predict lifetime value. In the concluding chapters, you'll gain an understanding of regression techniques and tools for evaluating regression models, and explore ways to predict customer choice using classification algorithms. Finally, you'll apply these techniques to create a churn model for modeling customer product choices. By the end of this book, you will be able to build your own marketing reporting and interactive dashboard solutions. What you will learnAnalyze and visualize data in Python using pandas and MatplotlibStudy clustering techniques, such as hierarchical and k-means clusteringCreate customer segments based on manipulated data Predict customer lifetime value using linear regressionUse classification algorithms to understand customer choiceOptimize classification algorithms to extract maximal informationWho this book is for Data Science for Marketing Analytics is designed for developers and marketing analysts looking to use new, more sophisticated tools in their marketing analytics efforts. It'll help if you have prior experience of coding in Python and knowledge of high school level mathematics. Some experience with databases, Excel, statistics, or Tableau is useful but not necessary.

As the power and sophistication of of 'big data' and predictive analytics has continued to expand, so too has policy and public concern about the use of algorithms in contemporary life. This is hardly surprising given our increasing reliance on algorithms in daily life, touching policy sectors from healthcare, transport, finance, consumer retail, manufacturing education, and employment through to public service provision and the operation of the criminal justice system. This has prompted concerns about the need and importance of holding algorithmic power to account, yet it is far from clear that existing legal and other oversight mechanisms are up to the task. This collection of essays, edited by two leading regulatory governance scholars, offers a critical exploration of 'algorithmic regulation', understood both as a means for co-ordinating and regulating social action and decision-making, as well as the need for institutional mechanisms through which the power of algorithms and algorithmic systems might themselves be regulated. It offers a unique perspective that is likely to become a significant reference point for the ever-growing debates about the power of algorithms in daily life in the worlds of research, policy and practice. The range of contributors are drawn from a broad range of disciplinary perspectives including law, public administration, applied philosophy, data science and artificial intelligence. Taken together, they highlight the rise of algorithmic power, the potential benefits and risks associated with this power, the way in which Sheila Jasanoff's long-standing claim that 'technology is politics' has been thrown into sharp relief by the speed and scale at which algorithmic systems are proliferating, and the urgent need for wider public debate and engagement of their underlying values and value trade-offs, the way in which they affect individual and collective decision-making and action, and effective and legitimate mechanisms by and through which algorithmic power is held to account.

Machine learning algorithms and artificial intelligence influence many aspects of life today. This report identifies some of their shortcomings and associated policy risks and examines some approaches for combating these problems.

"a provocative new book" — The New York Times AI-centric organizations exhibit a new operating architecture, redefining how they create, capture, share, and deliver value. Now with a new preface that explores how the coronavirus crisis compelled organizations such as Massachusetts General Hospital, Verizon, and IKEA to transform themselves with remarkable speed, Marco Iansiti and Karim R. Lakhani show how reinventing the firm around data, analytics, and AI removes traditional constraints on scale, scope, and learning that have restricted business growth for hundreds of years. From Airbnb to Ant Financial, Microsoft to Amazon, research shows how AI-driven processes are vastly more scalable than traditional processes, allow massive scope increase, enabling companies to straddle industry boundaries, and create powerful opportunities for learning—to drive ever more accurate, complex, and sophisticated predictions. When traditional operating constraints are removed, strategy becomes a whole new game, one whose rules and likely outcomes this book will make clear. Iansiti and Lakhani: Present a framework for rethinking business and operating models Explain how "collisions" between AI-driven/digital and traditional/analog firms are reshaping competition, altering the structure of our economy, and forcing traditional companies to rearchitect their operating models Explain the opportunities and risks created by digital firms Describe the new challenges and responsibilities for the leaders of both digital and traditional firms Packed with examples—including many from the most powerful and innovative global, AI-driven competitors—and based on research in hundreds of firms across many sectors, this is your essential guide

for rethinking how your firm competes and operates in the era of AI.
The Risks of Bias and Errors in Artificial Intelligence
Introduction to Programmatic Advertising
Targeting, Valuing, Segmenting and Loyalty Techniques
How Artificial Intelligence Is Redefining Who We Are
Why Computers Can't Think the Way We Do
Hands-On Data Science for Marketing
R for Marketing Research and Analytics

*A comprehensive guide to advanced marketing automation for marketing strategists, data scientists, product managers, and software engineers. The book covers the main areas of marketing that require programmatic micro-decisioning - targeted promotions and advertisements, eCommerce search, recommendations, pricing, and assortment optimization. Over the past sixty years, the spectacular growth of the technologies associated with the computer is visible for all to see and experience. Yet, the science underpinning this technology is less visible and little understood outside the professional computer science community. As a scientific discipline, computer science stands alongside the likes of molecular biology and cognitive science as one of the most significant new sciences of the post Second World War era. In this Very Short Introduction, Subrata Dasgupta sheds light on these lesser known areas and considers the conceptual basis of computer science. Discussing algorithms, programming, and sequential and parallel processing, he considers emerging modern ideas such as biological computing and cognitive modelling, challenging the idea of computer science as a science of the artificial. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.*

*The availability of very large data sets and the increase in computing power to process them has led to a renewed intensity in corporate and governmental use of Artificial Intelligence (AI) technologies. This groundbreaking book, the first devoted entirely to the growing presence of AI in the legal profession, responds to the necessity of building up a discipline that due to its novelty requires the pooling of knowledge and experiences of well-respected experts in the AI field, taking into account the impact of AI on the law and legal practice. Essays by internationally known expert authors introduce the essentials of AI in a straightforward and intelligible style, offering jurists as many practical examples and business cases as possible so that they are able to understand the real application of this technology and its impact on their jobs and lives. Elements of the analysis include the following: crucial terms: natural language processing, machine learning and deep learning; regulations in force in major jurisdictions; ethical and social issues; labour and employment issues, including the impact that robots have on employment; prediction of outcome in the legal field (judicial proceedings, patent granting, etc.); massive analysis of documents and identification of patterns from which to derive conclusions; AI and taxation; issues of competition and intellectual property; liability and responsibility of intelligent systems; AI and cybersecurity; AI and data protection; impact on state tax revenues; use of autonomous killer robots in the military; challenges related to privacy; the need to embrace transparency and sustainability; pressure brought by clients on prices; minority languages and AI; danger that the existing gap between large and small businesses will further increase; how to avoid algorithmic biases when AI decides; AI application to due diligence; AI and non-disclosure agreements; and the role of chatbots. Interviews with pioneers in the field are included, so readers get insights into the issues that people are dealing with in day-to-day actualities. Whether conceiving AI as a transformative technology of the labour market and training or an economic and business sector in need of legal advice, this introduction to AI will help practitioners in tax law, labour law, competition law and intellectual property law understand what AI is, what it serves, what is the state of the art and the potential of this technology, how they can benefit from its advantages and what are the risks it presents. As the global economy continues to suffer the repercussions of a framework that was previously fundamentally self-regulatory, policymakers will recognize the urgent need to formulate rules to properly manage the future of AI.*

*A groundbreaking narrative on the urgency of ethically designed AI and a guidebook to reimagining life in the era of intelligent technology. The Age of Intelligent Machines is upon us, and we are at a reflection point. The proliferation of fast-moving technologies,*

*including forms of artificial intelligence akin to a new species, will cause us to confront profound questions about ourselves. The era of human intellectual superiority is ending, and we need to plan for this monumental shift. A Human Algorithm: How Artificial Intelligence Is Redefining Who We Are examines the immense impact intelligent technology will have on humanity. These machines, while challenging our personal beliefs and our socioeconomic world order, also have the potential to transform our health and well-being, alleviate poverty and suffering, and reveal the mysteries of intelligence and consciousness. International human rights attorney Flynn Coleman deftly argues that it is critical that we instill values, ethics, and morals into our robots, algorithms, and other forms of AI. Equally important, we need to develop and implement laws, policies, and oversight mechanisms to protect us from tech's insidious threats. To realize AI's transcendent potential, Coleman advocates for inviting a diverse group of voices to participate in designing our intelligent machines and using our moral imagination to ensure that human rights, empathy, and equity are core principles of emerging technologies. Ultimately, A Human Algorithm is a clarion call for building a more humane future and moving conscientiously into a new frontier of our own design. "[Coleman] argues that the algorithms of machine learning--if they are instilled with human ethics and values--could bring about a new era of enlightenment." —San Francisco Chronicle*
*Apply modern RL methods to practical problems of chatbots, robotics, discrete optimization, web automation, and more*
*Ad Serving Technology*
*Building Intelligent Systems*
*Practical Machine Learning for Data Analysis Using Python*
*Deep Reinforcement Learning Hands-On*
*Basic to Advanced Strategies*
*Practical Applications*

We commonly think of society as made of and by humans, but with the proliferation of machine learning and AI technologies, this is clearly no longer the case. Billions of automated systems tacitly contribute to the social construction of reality by drawing algorithmic distinctions between the visible and the invisible, the relevant and the irrelevant, the likely and the unlikely – on and beyond platforms. Drawing on the work of Pierre Bourdieu, this book develops an original sociology of algorithms as social agents, actively participating in social life. Through a wide range of examples, Massimo Airoldi shows how society shapes algorithmic code, and how this culture in the code guides the practical behaviour of the code in the culture, shaping society in turn. The 'machine habitus' is the generative mechanism at work throughout myriads of feedback loops linking humans with artificial social agents, in the context of digital infrastructures and pre-digital social structures. Machine Habitus will be of great interest to students and scholars in sociology, media and cultural studies, science and technology studies and information technology, and to anyone interested in the growing role of algorithms and AI in our social and cultural life.

A Wharton professor and tech entrepreneur examines how algorithms and artificial intelligence are starting to run every aspect of our lives, and how we can shape the way they impact us Through the technology embedded in almost every major tech platform and every web-enabled device, algorithms and the artificial intelligence that underlies them make a staggering number of everyday decisions for us, from what products we buy, to where we decide to eat, to how we consume our news, to whom we date, and how we find a job. We've even delegated life-and-death decisions to algorithms--decisions once made by doctors, pilots, and judges. In his new book, Kartik Hosanagar surveys the brave new world of algorithmic decision-making and reveals the potentially dangerous biases they can give rise to as they increasingly run our lives. He makes the compelling case that we need to arm ourselves with a better, deeper, more nuanced understanding of the phenomenon of algorithmic thinking. And he gives us a route in, pointing out that algorithms often think a lot like their creators--that is, like you and me. Hosanagar draws on his experiences designing algorithms professionally--as well as on history, computer science, and psychology--to explore how algorithms work and why they occasionally go rogue, what drives our trust in them, and the many ramifications of algorithmic decision-making. He examines episodes like Microsoft's chatbot Tay, which was designed to converse on social media like a teenage girl, but instead turned sexist and racist; the fatal accidents of self-driving cars; and even our own common, and often frustrating, experiences on services like Netflix and Amazon. A Human's Guide to Machine Intelligence is an entertaining and provocative look at one of the most important developments of our time and a practical user's guide to this first wave of practical artificial intelligence.

This book explores various applications of deep learning-oriented diagnosis leading to decision support, while also outlining the future face of medical decision support systems. Artificial intelligence has now become a ubiquitous aspect of modern life, and especially machine learning enjoys great popularity, since it offers techniques that are capable of learning from samples to solve newly encountered cases. Today, a recent form of machine learning, deep learning, is being widely used with large, complex quantities of data, because today's problems require detailed analyses of more data. This is critical, especially in fields such as medicine. Accordingly, the objective of this book is to provide the essentials of and highlight recent applications of deep learning architectures for medical decision support systems. The target audience includes scientists, experts, MSc and PhD students, postdocs, and any readers interested in the subjects discussed. The book can be used as a reference work to support courses on artificial intelligence, machine/deep

learning, medical and biomedicaleducation.

The Modern AI Marketer will take you on a journey starting with the history of AI, AI applications in modern marketing, and how to drive AI initiatives at work. It also includes useful resources such as books, podcasts, and blogs to further expand your AI knowledge. You will see multiple use cases such as how to apply them as a valuable marketing or sales enablement marketing management tool. This eBook is for marketers, and sales professionals, who work directly in or support marketing strategy development, outbound marketing, demand generation, content marketing, account-based marketing, and sales enablement. If you don't know much about AI and what to know what make of it as a marketer and sales professional, check this book out!

Overview, Learning Strategies, Applications, and Future Developments

The Atlas of AI

The AI Marketing Canvas

Toward a Sociology of Algorithms

Artificial Intelligence for Marketing

Predictive Marketing

Deep Learning for Medical Decision Support Systems

Interest in algorithmic trading is growing massively – it's cheaper, faster and better to control than standard trading. enables you to 'pre-think' the market, executing complex math in real time and take the required decisions based on strategy defined. We are no longer limited by human 'bandwidth'. The cost alone (estimated at 6 cents per share manual, 1 cent per share algorithmic) is a sufficient driver to power the growth of the industry. According to consult firm, Aite Group LLC, high frequency trading firms alone account for 73% of all US equity trading volume, despite of representing approximately 2% of the total firms operating in the US markets. Algorithmic trading is becoming the industry lifeblood. But it is a secretive industry with few willing to share the secrets of their success. The book be a step-by-step guide to algorithmic trading, demystifying this complex subject and providing readers with a specific usable algorithmic trading knowledge. It provides background information leading to more advanced work by outlini current trading algorithms, the basics of their design, what they are, how they work, how they are used, their stre their weaknesses, where we are now and where we are going. The book then goes on to demonstrate a selection detailed algorithms including their implementation in the markets. Using actual algorithms that have been used in li trading readers have access to real time trading functionality and can use the never before seen algorithms to tra own accounts. The markets are complex adaptive systems exhibiting unpredictable behaviour. As the markets evolv algorithmic designers need to be constantly aware of any changes that may impact their work, so for the more adventurous reader there is also a section on how to design trading algorithms. All examples and algorithms are demonstrated in Excel on the accompanying CD ROM, including actual algorithmic examples which have been used live trading.

Introduction to Algorithmic MarketingArtificial Intelligence for Marketing Operations

The hidden costs of artificial intelligence, from natural resources and labor to privacy and freedom What happens v artificial intelligence saturates political life and depletes the planet? How is AI shaping our understanding of oursel and our societies? In this book Kate Crawford reveals how this planetary network is fueling a shift toward undemo governance and increased inequality. Drawing on more than a decade of research, award-winning science, and technology, Crawford reveals how AI is a technology of extraction: from the energy and minerals needed to build a sustain its infrastructure, to the exploited workers behind "automated" services, to the data AI collects from us. R than taking a narrow focus on code and algorithms, Crawford offers us a political and a material perspective on w takes to make artificial intelligence and where it goes wrong. While technical systems present a veneer of objectiv are always systems of power. This is an urgent account of what is at stake as technology companies use artificial intelligence to reshape the world.

Should a self-driving car prioritize the lives of the passengers over the lives of pedestrians? Should we as a society develop autonomous weapon systems that are capable of identifying and attacking a target without human interve What happens when AIs become smarter and more capable than us? Could they have greater than human moral st Can we prevent superintelligent AIs from harming us or causing our extinction? At a critical time in this fast-movin debate, thirty leading academics and researchers at the forefront of AI technology development come together to these existential questions, including Aaron James (UC Irvine), Allan Dafoe (Oxford), Andrea Loreggia (Padova), Andr Critch (UC Berkeley), Azim Shariff (Univ. .

How Big Data Increases Inequality and Threatens Democracy

Power, Politics, and the Planetary Costs of Artificial Intelligence

Achieve your marketing goals with the data analytics power of Python

A Human Algorithm

Machine Learning in Marketing

Data in Digital Advertising

Ethics of Artificial Intelligence

Artificial intelligence (AI) has grown in presence in asset management and has revolutionized the sector in many ways. It has improved portfolio management, trading, and risk management practices by increasing efficiency, accuracy, and compliance. In particular, AI techniques help construct portfolios based on more accurate risk and return forecasts and more complex constraints. Trading algorithms use AI to devise novel trading signals and execute trades with lower transaction costs. AI also improves risk modeling and forecasting by generating insights from new data sources. Finally, robo-advisors owe a large part of their success to

AI techniques. Yet the use of AI can also create new risks and challenges, such as those resulting from model opacity, complexity, and reliance on data integrity.

This book is your ultimate guide to advertising data landscape. It covers everything from basic concepts all the way to developing a successful data strategy. You will learn where advertising data comes from and how it flows around the ecosystem. It will help you understand what data is available for targeting from third-party vendors, as well as standalone advertising platforms, such as Facebook, Google, or Amazon. Data Management Platforms (DMPs) are explored in depth, with detailed profiles of the most popular providers. All of this is set into context of key privacy regulations, including General Data Protection Regulation (GDPR). The final chapter gives you a blueprint for designing your own successful data strategy.

CD-ROM includes examples and algorithms in Microsoft Excel spreadsheets.

Advanced Customer Analytics provides a clear guide to the specific analytical challenges faced by the retail sector. The book covers the nature and scale of data obtained in transactions, relative proximity to the consumer and the need to monitor customer behaviour across multiple channels. The book advocates a category management approach, taking into account the need to understand the consumer mindset through elasticity modelling and discount strategies, as well as targeted marketing and loyalty design. A practical, no-nonsense approach to complex scenarios is taken throughout, breaking down tasks into easily digestible steps. The use of a fictional retail analyst 'Scott' helps to provide accessible examples of practice. Advanced Customer Analytics does not skirt around the complexities of this subject but offers conceptual support to steer retail marketers towards making the right choices for analysing their data.

An Intelligence in Our Image

The Successful Transformation to Automated, Data-Driven Marketing in Real-Time

How Algorithms Are Shaping Our Lives and How We Can Stay in Control

The Future of Management in an AI World

A Five-Stage Road Map to Implementing Artificial Intelligence in Marketing

Understand the Data Landscape and Design a Winning Strategy

An Introductory Guide to Artificial Intelligence for Legal Professionals

*Produce a fully functioning Intelligent System that leverages machine learning and data from user interactions to improve over time and achieve success. This book teaches you how to build an Intelligent System from end to end and leverage machine learning in practice. You will understand how to apply your existing skills in software engineering, data science, machine learning, management, and program management to produce working systems. Building Intelligent Systems is based on more than a decade of experience building Internet-scale Intelligent Systems that have hundreds of millions of user interactions per day in some of the largest and most important software systems in the world. What You'll Learn Understand the concept of an Intelligent System: What it is good for, when you need one, and how to set it up for success Design an intelligent user experience: Produce data to help make the Intelligent System better over time Implement an Intelligent System: Execute, manage, and measure Intelligent Systems in practice Create intelligence: Use different approaches, including machine learning Orchestrate an Intelligent System: Bring the parts together throughout its life cycle and achieve the impact you want Who This Book Is For Software engineers, machine learning practitioners, and technical managers who want to build effective intelligent systems*

*Now , a leader of Northwestern University's prestigious analytics program presents a fully-integrated treatment of both the business and academic elements of marketing applications in predictive analytics. Writing for both managers and students, Thomas W. Miller explains essential concepts, principles, and theory in the context of real-world applications. Building on Miller's pioneering program, Marketing Data Science thoroughly addresses segmentation, target marketing, brand and product positioning, new product development, choice modeling, recommender systems, pricing research, retail site selection, demand estimation, sales forecasting, customer retention, and lifetime value analysis. Starting where Miller's widely-praised Modeling Techniques in Predictive Analytics left off, he integrates crucial information and insights that were previously segregated in texts on web analytics, network science, information technology, and programming. Coverage includes: The role of analytics in delivering effective messages on the web Understanding the web by understanding its hidden structures Being recognized on the web – and watching your own competitors Visualizing networks and understanding communities within them Measuring sentiment and making recommendations Leveraging key data science methods: databases/data preparation, classical/Bayesian statistics, regression/classification, machine learning, and text analytics Six complete case studies address exceptionally relevant issues such as: separating legitimate email from spam; identifying legally-relevant information for lawsuit discovery; gleaning insights from anonymous web surfing data, and more. This text's extensive set of web and network problems draw on rich public-domain data sources; many are accompanied by solutions in Python and/or R. Marketing Data Science will be an invaluable resource for all students, faculty, and professional marketers who want to use business analytics to improve marketing performance.*

*Artificial Intelligence (AI) is redefining the nature and principles of general management. The technological revolution is reshaping industries, disrupting existing business models, making traditional companies obsolete and creating social change. In response, the role of the manager needs to urgently evolve and adjust. Companies need to rethink their purpose, strategy, organisational design and decision-making rules. Crucially they will also need to consider how to nurture and develop the business leaders of the future and develop new ways to interact with society on issues such as privacy and trust. Containing international insights from leading figures from the world of management and technology, this book addresses the big challenges facing organisations, including: · Decision-making · Corporate strategy · People management and leadership ·*

*Organisational design Taking a holistic approach, this collection of expert voices provides valuable insight into how firms will discover and commit to what makes them unique in this new big data world, empowering them to create and sustain competitive advantage.*

*Enterprise Artificial Intelligence Transformation AI is everywhere. From doctor's offices to cars and even refrigerators, AI technology is quickly infiltrating our daily lives. AI has the ability to transform simple tasks into technological feats at a human level. This will change the world, plain and simple. That's why AI mastery is such a sought-after skill for tech professionals. Author Rashed Haq is a subject matter expert on AI, having developed AI and data science strategies, platforms, and applications for Publicis Sapient's clients for over 10 years. He shares that expertise in the new book, Enterprise Artificial Intelligence Transformation. The first of its kind, this book grants technology leaders the insight to create and scale their AI capabilities and bring their companies into the new generation of technology. As AI continues to grow into a necessary feature for many businesses, more and more leaders are interested in harnessing the technology within their own organizations. In this new book, leaders will learn to master AI fundamentals, grow their career opportunities, and gain confidence in machine learning. Enterprise Artificial Intelligence Transformation covers a wide range of topics, including: Real-world AI use cases and examples Machine learning, deep learning, and slimantic modeling Risk management of AI models AI strategies for development and expansion AI Center of Excellence creating and management If you're an industry, business, or technology professional that wants to attain the skills needed to grow your machine learning capabilities and effectively scale the work you're already doing, you'll find what you need in Enterprise Artificial Intelligence Transformation.*

*Weapons of Math Destruction*
*Algorithms of Oppression*
*A Human's Guide to Machine Intelligence*
*Advanced Customer Analytics*
*Computer Science: A Very Short Introduction*
*Redefining Purpose and Strategy in the Fourth Industrial Revolution*
*Programmatic Advertising*

A straightforward, non-technical guide to the next major marketing tool Artificial Intelligence for Marketing presents a tightly-focused introduction to machine learning, written specifically for marketing professionals. This book will not teach you to be a data scientist—but it does explain how Artificial Intelligence and Machine Learning will revolutionize your company's marketing strategy, and teach you how to use it most effectively. Data and analytics have become table stakes in modern marketing, but the field is ever-evolving with data scientists continually developing new algorithms—where does that leave you? How can marketers use the latest data science developments to their advantage? This book walks you through the "need-to-know" aspects of Artificial Intelligence, including natural language processing, speech recognition, and the power of Machine Learning to show you how to make the most of this technology in a practical, tactical way. Simple illustrations clarify complex concepts, and case studies show how real-world companies are taking the next leap forward. Straightforward, pragmatic, and with no math required, this book will help you: Speak intelligently about Artificial Intelligence and its advantages in marketing Understand how marketers without a Data Science degree can make use of machine learning technology Collaborate with data scientists as a subject matter expert to help develop focused-use applications Help your company gain a competitive advantage by leveraging leading-edge technology in marketing Marketing and data science are two fast-moving, turbulent spheres that often intersect; that intersection is where marketing professionals pick up the tools and methods to move their company forward. Artificial Intelligence and Machine Learning provide a data-driven basis for more robust and intensely-targeted marketing strategies—and companies that effectively utilize these latest tools will reap the benefit in the marketplace. Artificial Intelligence for Marketing provides a nontechnical crash course to help you stay ahead of the curve.

This fundamental guide on programmatic advertising explains in detail how automated, data-driven advertising really works in practice and how the right adoption leads to a competitive advantage for advertisers, agencies and media. The new way of planning, steering and measuring marketing may still appear complex and threatening but promising at once to most decision makers. This collaborative compendium combines proven experience and best practice in 22 articles written by 45 renowned experts from all around the globe. Among them Dr. Florian Heinemann/Project-A, Peter Würtenberger/Axel-Springer, Deirdre McGlashan/MediaCom, Dr. Marc Grether/Xaxis, Michael Lamb/MediaMath, Carolin Owen/IPG, Stefan Bardega/Zenith, Arun Kumar/Cadreon, Dr. Ralf Strauss/Marketingverband, Jonathan Becher/SAP and many more great minds.

Understand the marketing revelation that commercialized the Internet. Ad Serving provides a commercial infrastructure to the internet, spanning all sites, and touching all users, all the time. Ad Serving gives marketers the ability to deliver and measure their ads for exceptionally low cost, revealing the true value of the ad space they pay for. Utilizing cookie and page-level analysis, marketers can build vast pools of pseudonymous data about websites, ads and the users that encounter them. This data, and the trusted publisher-independent methodology for measurement, secures investment for Publishers. The counting, tracking and the delivery of ads to enable this data takes place at massive scale. The processes and systems behind data collection are complex, and marketers are expected to learn how to use them as the industry grows; applying this knowledge to their new roles in Digital Advertising. Many undertake this challenge, unaware of the complexity that lies ahead. The learning resources are few and far between. This book satisfies an intermediate-level of tuition to Ad Serving Technology, illustrating how and why Advertisers continue to grow their ad spend in the planet's favorite new media channel. Topics covered includes: Introduction to Digital Advertising, Introduction to Ad Serving technologies, Campaign

Setup in the Ad Server by Channel - Standard Display, Rich Media, Instream Video, SEO, Paid Search, Affiliate, Email and Social. This book also covers Conversions, Attribution, Retargeting, Optimization Strategies, Adserver Reporting, Adserver Analytics, Privacy technology and an Introduction to Programmatic including DSPs, SSPs, DMPs, ATD's, ITD's and RTB.

Futurists are certain that humanlike AI is on the horizon, but in fact engineers have no idea how to program human reasoning. AI reasons from statistical correlations across data sets, while common sense is based heavily on conjecture. Erik Larson argues that hyping existing methods will only hold us back from developing truly humanlike AI.

Modeling Techniques in Predictive Analytics with R and Python

Marketing Data Science

An Introduction to Algorithmic Trading

Python for Marketing Research and Analytics

Machine Habitus

From Theory to Algorithms

Understanding Machine Learning

*This book offers a direct, actionable plan CMOs can use to map out initiatives that are properly sequenced and designed for success—regardless of where their marketing organization is in the process. The authors pose the following critical questions to marketers: (1) How should modern marketers be thinking about artificial intelligence and machine learning? and (2) How should marketers be developing a strategy and plan to implement AI into their marketing toolkit? The opening chapters provide marketing leaders with an overview of what exactly AI is and how is it different than traditional computer science approaches. Venkatesan and Lecinski, then, propose a best-practice, five-stage framework for implementing what they term the "AI Marketing Canvas." Their approach is based on research and interviews they conducted with leading marketers, and offers many tangible examples of what brands are doing at each stage of the AI Marketing Canvas. By way of guidance, Venkatesan and Lecinski provide examples of brands—including Google, Lyft, Ancestry.com, and Coca-Cola—that have successfully woven AI into their marketing strategies. The book concludes with a discussion of important implications for marketing leaders—for your team and culture.*

*This book is a complete introduction to the power of R for marketing research practitioners. The text describes statistical models from a conceptual point of view with a minimal amount of mathematics, presuming only an introductory knowledge of statistics. Hands-on chapters accelerate the learning curve by asking readers to interact with R from the beginning. Core topics include the R language, basic statistics, linear modeling, and data visualization, which is presented throughout as an integral part of analysis. Later chapters cover more advanced topics yet are intended to be approachable for all analysts. These sections examine logistic regression, customer segmentation, hierarchical linear modeling, market basket analysis, structural equation modeling, and conjoint analysis in R. The text uniquely presents Bayesian models with a minimally complex approach, demonstrating and explaining Bayesian methods alongside traditional analyses for analysis of variance, linear models, and metric and choice-based conjoint analysis. With its emphasis on data visualization, model assessment, and development of statistical intuition, this book provides guidance for any analyst looking to develop or improve skills in R for marketing applications.*

*Longlisted for the National Book Award New York Times Bestseller A former Wall Street quant sounds an alarm on the mathematical models that pervade modern life -- and threaten to rip apart our social fabric We live in the age of the algorithm. Increasingly, the decisions that affect our lives--where we go to school, whether we get a car loan, how much we pay for health insurance--are being made not by humans, but by mathematical models. In theory, this should lead to greater fairness: Everyone is judged according to the same rules, and bias is eliminated. But as Cathy O'Neil reveals in this urgent and necessary book, the opposite is true. The models being used today are opaque, unregulated, and uncontestable, even when they're wrong. Most troubling, they reinforce discrimination: If a poor student can't get a loan because a lending model deems him too risky (by virtue of his zip code), he's then cut off from the kind of education that could pull him out of poverty, and a vicious spiral ensues. Models are propping up the lucky and punishing the downtrodden, creating a "toxic cocktail for democracy." Welcome to the dark side of Big Data. Tracing the arc of a person's life, O'Neil exposes the black box models that shape our future, both as individuals and as a society. These "weapons of math destruction" score teachers and students, sort r sum s, grant (or deny) loans, evaluate workers, target voters, set parole, and monitor our health. O'Neil calls on modelers to take more responsibility for their algorithms and on policy makers to regulate their use. But in the end, it's up to us to become more savvy about the models that govern our lives. This important book empowers us to ask the tough questions, uncover the truth, and demand change. -- Longlist for National Book Award (Non-Fiction) -- Goodreads, semi-finalist for the 2016 Goodreads Choice Awards (Science and Technology) -- Kirkus, Best Books of 2016 -- New York Times, 100 Notable Books of 2016 (Non-Fiction) -- The Guardian, Best Books of 2016 -- WBUR's "On Point," Best Books of 2016: Staff Picks -- Boston Globe, Best Books of 2016, Non-Fiction*

*The Myth of Artificial Intelligence*

*The Modern AI Marketer*