
Customer Analytics Using Deep Learning With Keras To

Eventually, you will enormously discover a further experience and finishing by spending more cash. nevertheless when? realize you say you will that you require to get those all needs as soon as having significantly cash? Why dont you attempt to get something basic in the beginning? Thats something that will guide you to comprehend even more all but the globe, experience, some places, like history, amusement, and a lot more?

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ANGELIQUE CAMRYN

*Using Deep Learning
With Keras To*

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*Marketing Information and Artificial
Intelligence Customer Psychological
Predictive Packt Publishing Ltd*

Customer and Business Analytics: Applied Data Mining for Business Decision Making Using R explains and demonstrates, via the accompanying open-source software, how advanced analytical tools can address various business problems. It also gives insight into some of the challenges faced when deploying these tools. Extensively classroom-tested, the text is ideal for students in customer and business analytics or applied data mining as well as professionals in small- to medium-sized organizations. The book offers an intuitive understanding of how different analytics algorithms work. Where necessary, the authors explain the underlying mathematics in an accessible manner. Each technique presented includes a detailed tutorial that enables

hands-on experience with real data. The authors also discuss issues often encountered in applied data mining projects and present the CRISP-DM process model as a practical framework for organizing these projects. Showing how data mining can improve the performance of organizations, this book and its R-based software provide the skills and tools needed to successfully develop advanced analytics capabilities. [Artificial Intelligence and Machine Learning for Business](#) John Wiley & Sons The beating heart of any product or service business is returning clients. Don't let your hard-won customers vanish, taking their money with them. In [Fighting Churn with Data](#) you'll learn powerful data-driven techniques to maximize customer retention and

minimize actions that cause them to stop engaging or unsubscribe altogether. Summary The beating heart of any product or service business is returning clients. Don't let your hard-won customers vanish, taking their money with them. In *Fighting Churn with Data* you'll learn powerful data-driven techniques to maximize customer retention and minimize actions that cause them to stop engaging or unsubscribe altogether. This hands-on guide is packed with techniques for converting raw data into measurable metrics, testing hypotheses, and presenting findings that are easily understandable to non-technical decision makers. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

About the technology Keeping customers active and engaged is essential for any business that relies on recurring revenue and repeat sales. Customer turnover—or “churn”—is costly, frustrating, and preventable. By applying the techniques in this book, you can identify the warning signs of churn and learn to catch customers before they leave. About the book *Fighting Churn with Data* teaches developers and data scientists proven techniques for stopping churn before it happens. Packed with real-world use cases and examples, this book teaches you to convert raw data into measurable behavior metrics, calculate customer lifetime value, and improve churn forecasting with demographic data. By following Zuora Chief Data Scientist Carl Gold's methods, you'll reap

the benefits of high customer retention. What's inside Calculating churn metrics Identifying user behavior that predicts churn Using churn reduction tactics with customer segmentation Applying churn analysis techniques to other business areas Using AI for accurate churn forecasting About the reader For readers with basic data analysis skills, including Python and SQL. About the author Carl Gold (PhD) is the Chief Data Scientist at Zuora, Inc., the industry-leading subscription management platform. Table of Contents: PART 1 - BUILDING YOUR ARSENAL 1 The world of churn 2 Measuring churn 3 Measuring customers 4 Observing renewal and churn PART 2 - WAGING THE WAR 5 Understanding churn and behavior with metrics 6 Relationships between customer

behaviors 7 Segmenting customers with advanced metrics PART 3 - SPECIAL WEAPONS AND TACTICS 8 Forecasting churn 9 Forecast accuracy and machine learning 10 Churn demographics and firmographics 11 Leading the fight against churn

Predictive Marketing CRC Press Optimize your marketing strategies through analytics and machine learning Key Features Understand how data science drives successful marketing campaigns Use machine learning for better customer engagement, retention, and product recommendations Extract insights from your data to optimize marketing strategies and increase profitability Book 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 learn Learn how to compute and visualize marketing KPIs in Python and R Master what drives successful marketing campaigns with data science Use machine learning to predict customer engagement and

lifetime value Make product recommendations that customers are most likely to buy Learn how to use A/B testing for better marketing decision making Implement machine learning to understand different customer segments Who 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.

Advances in Analytics and Applications
Taylor & Francis

Turbocharge your marketing plans by making the leap from simple descriptive statistics in Excel to sophisticated predictive analytics with the Python programming language Key Features Use data analytics and machine learning in a sales and marketing context Gain insights from data to make better business decisions Build your experience and confidence with realistic hands-on practice Book Description Unleash the power of data to reach your marketing goals with this practical guide to data science for business. This book will help you get started on your journey to becoming a master of marketing analytics with Python. You'll work with relevant datasets and build your practical skills by tackling engaging exercises and activities that simulate

real-world market analysis projects. You'll learn to think like a data scientist, build your problem-solving skills, and discover how to look at data in new ways to deliver business insights and make intelligent data-driven decisions. As well as learning how to clean, explore, and visualize data, you'll implement machine learning algorithms and build models to make predictions. As you work through the book, you'll use Python tools to analyze sales, visualize advertising data, predict revenue, address customer churn, and implement customer segmentation to understand behavior. By the end of this book, you'll have the knowledge, skills, and confidence to implement data science and machine learning techniques to better understand your marketing data and improve your

decision-making. What you will learnLoad, clean, and explore sales and marketing data using pandasForm and test hypotheses using real data sets and analytics toolsVisualize patterns in customer behavior using MatplotlibUse advanced machine learning models like random forest and SVMUse various unsupervised learning algorithms for customer segmentationUse supervised learning techniques for sales predictionEvaluate and compare different models to get the best outcomesOptimize models with hyperparameter tuning and SMOTEWho this book is for This marketing book is for anyone who wants to learn how to use Python for cutting-edge marketing analytics. Whether you're a developer who wants to move into marketing, or a

marketing analyst who wants to learn more sophisticated tools and techniques, this book will get you on the right path. Basic prior knowledge of Python and experience working with data will help you access this book more easily.

Fun with Data Analysis and BI CRC Press

Comprehensive resource covering tools and techniques used for predictive analytics with practical applications across various industries Intelligent Techniques for Predictive Data Analytics provides an in-depth introduction of the tools and techniques used for predictive analytics, covering applications in cyber security, network security, data mining, and machine learning across various industries. Each chapter offers a brief introduction on the subject to make the

text accessible regardless of background knowledge. Readers will gain a clear understanding of how to use data processing, classification, and analysis to support strategic decisions, such as optimizing marketing strategies and customer relationship management and recommendation systems, improving general business operations, and predicting occurrence of chronic diseases for better patient management. Traditional data analytics uses dashboards to illustrate trends and outliers, but with large data sets, this process is labor-intensive and time-consuming. This book provides everything readers need to save time by performing deep, efficient analysis without human bias and time constraints. A section on current

challenges in the field is also included. Intelligent Techniques for Predictive Data Analytics covers sample topics such as: Models to choose from in predictive modeling, including classification, clustering, forecast, outlier, and time series models Price forecasting, quality optimization, and insect and disease plant and monitoring in agriculture Fraud detection and prevention, credit scoring, financial planning, and customer analytics Big data in smart grids, smart grid analytics, and predictive smart grid quality monitoring, maintenance, and load forecasting Management of uncertainty in predictive data analytics and probable future developments in the field Intelligent Techniques for Predictive Data Analytics is an essential resource

on the subject for professionals and researchers working in data science or data management seeking to understand the different models of predictive analytics, along with graduate students studying data science courses and professionals and academics new to the field.

AI and Machine Learning Applications and Implications in Customer Support and Analytics

Business Science Reference

Gain a broad foundation of advanced data analytics concepts and discover the recent revolution in databases such as Neo4j, Elasticsearch, and MongoDB. This book discusses how to implement ETL techniques including topical crawling, which is applied in domains such as high-frequency algorithmic trading and

goal-oriented dialog systems. You'll also see examples of machine learning concepts such as semi-supervised learning, deep learning, and NLP. *Advanced Data Analytics Using Python* also covers important traditional data analysis techniques such as time series and principal component analysis. After reading this book you will have experience of every technical aspect of an analytics project. You'll get to know the concepts using Python code, giving you samples to use in your own projects. *What You Will Learn* Work with data analysis techniques such as classification, clustering, regression, and forecasting Handle structured and unstructured data, ETL techniques, and different kinds of databases such as Neo4j, Elasticsearch, MongoDB, and

MySQL Examine the different big data frameworks, including Hadoop and Spark Discover advanced machine learning concepts such as semi-supervised learning, deep learning, and NLP *Who This Book Is For* Data scientists and software developers interested in the field of data analytics.

Deep Learning for Data Analytics BPB Publications

Deep learning, a branch of Artificial Intelligence and machine learning, has led to new approaches to solving problems in a variety of domains including data science, data analytics and biomedical engineering. *Deep Learning for Data Analytics: Foundations, Biomedical Applications and Challenges* provides readers with a focused approach for the design and

implementation of deep learning concepts using data analytics techniques in large scale environments. Deep learning algorithms are based on artificial neural network models to cascade multiple layers of nonlinear processing, which aids in feature extraction and learning in supervised and unsupervised ways, including classification and pattern analysis. Deep learning transforms data through a cascade of layers, helping systems analyze and process complex data sets. Deep learning algorithms extract high level complex data and process these complex sets to relatively simpler ideas formulated in the preceding level of the hierarchy. The authors of this book focus on suitable data analytics methods to solve complex real world problems such

as medical image recognition, biomedical engineering, and object tracking using deep learning methodologies. The book provides a pragmatic direction for researchers who wish to analyze large volumes of data for business, engineering, and biomedical applications. Deep learning architectures including deep neural networks, recurrent neural networks, and deep belief networks can be used to help resolve problems in applications such as natural language processing, speech recognition, computer vision, bioinformatics, audio recognition, drug design, and medical image analysis. Presents the latest advances in Deep Learning for data analytics and biomedical engineering applications. Discusses Deep Learning techniques as

they are being applied in the real world of biomedical engineering and data science, including Deep Learning networks, deep feature learning, deep learning toolboxes, performance evaluation, Deep Learning optimization, deep auto-encoders, and deep neural networks Provides readers with an introduction to Deep Learning, along with coverage of deep belief networks, convolutional neural networks, Restricted Boltzmann Machines, data analytics basics, enterprise data science, predictive analysis, optimization for Deep Learning, and feature selection using Deep Learning
Advanced Data Analytics Using Python
 John Wiley & Sons
 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. Python Social Media Analytics Packt Publishing Ltd This book presents deep learning techniques, concepts, and algorithms to classify and analyze big data. Further, it offers an introductory level understanding of the new programming languages and tools used to analyze big

data in real-time, such as Hadoop, SPARK, and GRAPHX. Big data analytics using traditional techniques face various challenges, such as fast, accurate and efficient processing of big data in real-time. In addition, the Internet of Things is progressively increasing in various fields, like smart cities, smart homes, and e-health. As the enormous number of connected devices generate huge amounts of data every day, we need sophisticated algorithms to deal, organize, and classify this data in less processing time and space. Similarly, existing techniques and algorithms for deep learning in big data field have several advantages thanks to the two main branches of the deep learning, i.e. convolution and deep belief networks. This book offers insights into these

techniques and applications based on these two types of deep learning. Further, it helps students, researchers, and newcomers understand big data analytics based on deep learning approaches. It also discusses various machine learning techniques in concatenation with the deep learning paradigm to support high-end data processing, data classifications, and real-time data processing issues. The classification and presentation are kept quite simple to help the readers and students grasp the basics concepts of various deep learning paradigms and frameworks. It mainly focuses on theory rather than the mathematical background of the deep learning concepts. The book consists of 5 chapters, beginning with an introductory

explanation of big data and deep learning techniques, followed by integration of big data and deep learning techniques and lastly the future directions.

Artificial Intelligence Trends for Data Analytics Using Machine Learning and Deep Learning Approaches Springer

Customer privacy is increasingly important to marketers. High-profile breaches of databases containing sensitive customer information, and the growing need to build the infrastructure required to support analysis of big data, present nontrivial obstacles to researchers seeking individual-level customer data from firms. In this paper, we show that recent developments in machine learning may enable firms to

transfer a generative model, instead of data, thus potentially obviating the process of anonymizing and sampling customer data for release, for use in a variety of analytic use cases. We demonstrate the efficacy of a specific deep learning model, Generative Adversarial Networks (GANs), in preserving desired characteristics of original data. In real-world settings, we find that GANs can double the accuracy as compared to the best benchmark methods. We also demonstrate that GANs can be used to solve marketing problems of price markups for optimal profits and customer targeting, and that a single GAN can tackle multiple marketing problems. Furthermore, GANs have volume and velocity advantages, as the size of informational transfer

grows according to model complexity, and it can readily handle real-time data streams.

Using Deep Learning to Overcome Privacy and Scalability Issues in Customer Data Transfer Springer

The second edition of Consumer Behaviour and Analytics provides a consumer behaviour textbook for the new marketing reality. In a world of Big Data, machine learning and artificial intelligence, this key text reviews the issues, research and concepts essential for navigating this new terrain. It demonstrates how we can use data-driven insight and merge this with insight from extant research to inform knowledge-driven decision-making. Adopting a practical and managerial lens, while also exploring the rich

lineage of academic consumer research, this textbook approaches its subject from a refreshing and original standpoint. It contains numerous accessible examples, scenarios and exhibits, and condenses the disparate array of relevant work into a workable, coherent, synthesized and readable whole. Providing an effective tour of the concepts and ideas most relevant in the age of analytics-driven marketing (from data visualization to semiotics), the book concludes with an adaptive structure to inform managerial decision-making. Consumer Behaviour and Analytics provides a unique distillation from a vast array of social and behavioural research merged with the knowledge potential of digital insight. It offers an effective and efficient summary for undergraduate,

postgraduate or executive courses in consumer behaviour and marketing analytics, and also functions as a supplementary text for other marketing modules. Online resources include PowerPoint slides.

Fundamentals of Machine Learning for Predictive Data Analytics, second edition
Independently Published

Learn how to gain insights from your data as well as machine learning and become a presentation pro who can create interactive dashboards
Key Features
Enhance your presentation skills by implementing engaging data storytelling and visualization techniques
Learn the basics of machine learning and easily apply machine learning models to your data
Improve productivity by automating your data

processes
Book Description
Data Analytics Made Easy is an accessible beginner's guide for anyone working with data. The book interweaves four key elements: Data visualizations and storytelling – Tired of people not listening to you and ignoring your results? Don't worry; chapters 7 and 8 show you how to enhance your presentations and engage with your managers and co-workers. Learn to create focused content with a well-structured story behind it to captivate your audience. Automating your data workflows – Improve your productivity by automating your data analysis. This book introduces you to the open-source platform, KNIME Analytics Platform. You'll see how to use this no-code and free-to-use software to create a KNIME

workflow of your data processes just by clicking and dragging components.

Machine learning – Data Analytics Made Easy describes popular machine learning approaches in a simplified and visual way before implementing these machine learning models using KNIME. You'll not only be able to understand data scientists' machine learning models; you'll be able to challenge them and build your own. Creating interactive dashboards – Follow the book's simple methodology to create professional-looking dashboards using Microsoft Power BI, giving users the capability to slice and dice data and drill down into the results. What you will learn Understand the potential of data and its impact on your business Import, clean, transform, combine data feeds,

and automate your processes Influence business decisions by learning to create engaging presentations Build real-world models to improve profitability, create customer segmentation, automate and improve data reporting, and more Create professional-looking and business-centric visuals and dashboards Open the lid on the black box of AI and learn about and implement supervised and unsupervised machine learning models Who this book is for This book is for beginners who work with data and those who need to know how to interpret their business/customer data. The book also covers the high-level concepts of data workflows, machine learning, data storytelling, and visualizations, which are useful for managers. No previous math, statistics, or computer science

knowledge is required.

Artificial Intelligence for Marketing Management

Packt Publishing Ltd
Master the hottest technology around to drive marketing success Marketers are faced with a stark and challenging dilemma: customers demand deep personalization, but they are increasingly leery of offering the type of personal data required to make it happen. As a solution to this problem, Customer Data Platforms have come to the fore, offering companies a way to capture, unify, activate, and analyze customer data. CDPs are the hottest marketing technology around today, but are they worthy of the hype? Customer Data Platforms takes a deep dive into everything CDP so you can learn how to steer your firm toward the future of

personalization. Over the years, many of us have built byzantine “stacks” of various marketing and advertising technology in an attempt to deliver the fabled “right person, right message, right time” experience. This can lead to siloed systems, disconnected processes, and legacy technical debt. CDPs offer a way to simplify the stack and deliver a balanced and engaging customer experience. Customer Data Platforms breaks down the fundamentals, including how to: Understand the problems of managing customer data Understand what CDPs are and what they do (and don't do) Organize and harmonize customer data for use in marketing Build a safe, compliant first-party data asset that your brand can use as fuel Create a data-driven culture that puts customers

at the center of everything you do
Understand how to use AI and machine learning to drive the future of personalization
Orchestrate modern customer journeys that react to customers in real-time
Power analytics with customer data to get closer to true attribution
In this book, you'll discover how to build 1:1 engagement that scales at the speed of today's customers.

How to Boost E-commerce Success with Customer Analytics John Wiley & Sons
"AI and Machine Learning Applications and Implications in Customer Support and Analytics explores various artificial intelligence and machine learning models and methods for business applications, as well as algorithmic approaches for customer support and analytics in a variety of fields and

applications in the modern data-driven era where data is arriving in greater variety and with more velocity. This book is ideal for marketing professionals, managers, business owners, researchers, practitioners, academicians, instructors, university libraries, and students, and covers topics such as artificial intelligence, machine learning, supervised learning, unsupervised learning, deep learning, customer sentiment analysis, customer emotional analysis, natural language processing, data mining, neural networks, ensemble learning, business analytics and analytical geared toward"--
Artificial Intelligence Trends for Data Analytics Using Machine Learning and Deep Learning Approaches Taylor & Francis

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.

Hands-On Data Science for Marketing
BPB Publications

With businesses becoming ever more competitive, marketing strategies need to be more precise and performance oriented. Companies are investing considerably in analytical infrastructure for marketing. This new volume, *Marketing Analytics: A Machine Learning Approach*, enlightens readers on the application of analytics in marketing and the process of analytics, providing a

foundation on the concepts and algorithms of machine learning and statistics. The book simplifies analytics for businesses and explains its uses in different aspects of marketing in a way that even marketers with no prior analytics experience will find it easy to follow, giving them the tools to make better business decisions. This volume gives a comprehensive overview of marketing analytics, incorporating machine learning methods of data analysis that automates analytical model building. The volume covers the important aspects of marketing analytics, including segmentation and targeting analysis, statistics for marketing, marketing metrics, consumer buying behavior, neuromarketing techniques for consumer analytics, new

product development, forecasting sales and price, web and social media analytics, and much more. This well-organized and straight-forward volume will be valuable for marketers, managers, decision makers, and research scholars, and faculty in business marketing and information technology and would also be suitable for classroom use.

Data Analytics Made Easy Apress
Master the craft of predictive modeling in R by developing strategy, intuition, and a solid foundation in essential concepts About This Book Grasping the major methods of predictive modeling and moving beyond black box thinking to a deeper level of understanding Leveraging the flexibility and modularity of R to experiment with a range of

different techniques and data types
Packed with practical advice and tips
explaining important concepts and best
practices to help you understand quickly
and easily Who This Book Is For Although
budding data scientists, predictive
modelers, or quantitative analysts with
only basic exposure to R and statistics
will find this book to be useful, the
experienced data scientist professional
wishing to attain master level status ,
will also find this book extremely
valuable.. This book assumes familiarity
with the fundamentals of R, such as the
main data types, simple functions, and
how to move data around. Although no
prior experience with machine learning
or predictive modeling is required, there
are some advanced topics provided that
will require more than novice exposure.

What You Will Learn Master the steps
involved in the predictive modeling
process Grow your expertise in using R
and its diverse range of packages Learn
how to classify predictive models and
distinguish which models are suitable for
a particular problem Understand steps
for tidying data and improving the
performing metrics Recognize the
assumptions, strengths, and weaknesses
of a predictive model Understand how
and why each predictive model works in
R Select appropriate metrics to assess
the performance of different types of
predictive model Explore word
embedding and recurrent neural
networks in R Train models in R that can
work on very large datasets In Detail R
offers a free and open source
environment that is perfect for both

learning and deploying predictive modeling solutions. With its constantly growing community and plethora of packages, R offers the functionality to deal with a truly vast array of problems. The book begins with a dedicated chapter on the language of models and the predictive modeling process. You will understand the learning curve and the process of tidying data. Each subsequent chapter tackles a particular type of model, such as neural networks, and focuses on the three important questions of how the model works, how to use R to train it, and how to measure and assess its performance using real-world datasets. How do you train models that can handle really large datasets? This book will also show you just that. Finally, you will tackle the really important topic

of deep learning by implementing applications on word embedding and recurrent neural networks. By the end of this book, you will have explored and tested the most popular modeling techniques in use on real-world datasets and mastered a diverse range of techniques in predictive analytics using R. Style and approach This book takes a step-by-step approach in explaining the intermediate to advanced concepts in predictive analytics. Every concept is explained in depth, supplemented with practical examples applicable in a real-world setting.

Consumer Behaviour and Analytics MIT Press

Learn modern-day technologies from modern-day technical giants.
KEY FEATURES1. Real-world success and

failure stories of artificial intelligence explained2. Understand concepts of artificial intelligence and deep learning methods 3. Learn how to use artificial intelligence and deep learning methods4. Know how to prepare dataset and implement models using industry leading Python packages 5. You'll be able to apply and analyze the results produced by the models for predictionDESCRIPTION The aim of this book is to help the readers understand the concept of artificial intelligence and deep learning methods and implement them into their businesses and organizations. The first two chapters describe the introduction of the artificial intelligence and deep learning methods. In the first chapter, the concept of human thinking process, starting from

the biochemical responses within the structure of neurons to the problem-solving steps through computational thinking skills are discussed. All chapters after the first two should be considered as the study of different technological and Artificial Intelligence giants of current age. These chapters are placed in a way that each chapter could be considered a separate study of a separate company, which includes the achievements of intelligent services currently provided by the company, discussion on the business model of the company towards the use of the deep learning technologies, the advancement of the web services which are incorporated with intelligent capability introduced by company, the efforts of the company in contributing to the

development of the artificial intelligence and deep learning research. WHAT WILL YOU LEARN How to use the algorithms written in the Python programming language to design models and perform predictions in general datasets Understand use cases in different industries related to the implementation of artificial intelligence and deep learning methods Learn the use of potential ideas in artificial intelligence and deep learning methods to improve the operational processes or new products and how services can be produced based on the methods WHO THIS BOOK IS FOR This book is targeted to business and organization leaders, technology enthusiasts, professionals, and managers who seek knowledge of artificial intelligence and deep learning

methods. Table of Contents
 1. Artificial Intelligence and Deep Learning
 2. Data Science for Business Analysis
 3. Decision Making
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 5. Cognitive Learning Services in IBM Watson
 6. Advancement web services by Baidu
 7. Improved Social Business by Facebook
 8. Personalized Intelligent Computing by Apple
 9. Cloud Computing Intelligent by Microsoft
 About the Author
 Dr. Jagreet Kaur
 Dr. Jagreet Kaur is a doctorate in computer science and engineering. Her topic of thesis was "e;ARTIFICIAL INTELLIGENCE BASED ANALYTICAL PLATFORM FOR PREDICTIVE ANALYSIS IN HEALTH CARE."e; With more than 12 years of experience in academics and research, she is working in data wrangling, machine learning and

deeplearning algorithms on large datasets, real-time data often in production environments for data science solutions and data products to get actionable insights for the last four years. She also possesses ten international publications and five national publications under her name. Her skill set includes data engineering skills (Hadoop, Apache Spark, Apache Kafka, Cassandra, Hive, Flume, Scoop, and Elasticsearch), programming skills (Python, Angularjs, D3.js, Machine Learning, and R), data science skills (Statistics, Machine Learning, NLP, NLTK, Artificial Intelligence, R, Python, Pandas, Sklearn, Hadoop, SQL, Statistical Modeling, Data Munging, Decision Science, Machine Learning, Graph Analysis, Text Mining

and Optimization, and Web Scraping, Deep learning packages:- Theano, Keras, Tensorflow, Pytorch, Julia) and Algorithms Specialization (Regression Algorithms: Linear Regression, Random Forest Regressor, XGBoost, SVR, Ridge Regression, Lasso Regression, Neural Networks Classification Algorithms: Decision Trees, Random Forest Classifier, Support Vector Machines(SVM), Logistic Regression, KNN Classifier, Neural Network, Clustering Algorithms: K-Means, DBSCAN, Deep Learning Algorithms: Simple RNN, LSTM Network, GRU) Currently, she works as a Chief Operating Officer (COO) and Chief Data Scientist in Xenonstack. Under her Guidance, more than 400 projects are already developed and productionized

which also includes more than 200 AI and data science projects. Navdeep Singh Gill Naveed Singh Gill is a technology and solution architect having more than 15 years of experience in the IT and Telecom industry. For the past six years, he is working in big data analytics, automation and advanced analytics using machine learning and deep learning for planning and architecting of data science solutions and data products. He's also working in 3 As (Analytics, Automation, and AI), more focused on writing software for building data lake, analytics platform , NoSQL deployments, data migration, data modelling tasks, ML/DL on real-time data often in production environments. He started his career with HFCL Infotel as a network engineer for managing the

technical network of Broadband Customers with Linux servers and Cisco routers. He also worked in Ericsson, where he handled the synchronization plan and implementation for synchronization of Microwave Network and Media Gateway, MSS, and Core Network. SSU Implementation Planning and Optimization with respect to IP RAN, Mobile Backhaul Solution- Optimization of Existing Microwave Network to Ethernet, Microwave Hybrid Solution, Convergence to all IP, SIU Implementation for conversion to IP of Existing BTS, GB over IP. His area of expertise includes Hadoop, Openstack, DevOps, Kubernetes, Dockers, Amazon web services, Apache Spark, Apache Storm, Apache Kafka, Hbase, Solr, Apache Flink Nutch, Mapreduce, Pig,

Hive, Flume, Scoop, ElasticSearch, and programming expertise includes Python, Angular.js, and Node.js.

Intelligent Techniques for Predictive Data Analytics John Wiley & Sons

Architecting AI: Design patterns for building deep learning products
KEY FEATURES ● Master foundational concepts in design patterns of deep learning. ● Benefit from practical insights shared by an industry professional. ● Learn to build data products using deep learning.

DESCRIPTION Design Patterns of Deep Learning with TensorFlow is your comprehensive guide to learning deep learning from a design pattern perspective. In this book, we explore deep learning within the context of building hyper-personalization models,

exploring its applications across various industries and scenarios. It starts by showing how deep learning enhances retail through customer segmentation and data analysis. You will learn neural networks, computer vision with CNNs, and NLP for analyzing customer behavior. This book addresses challenges like uneven data and optimizing models with techniques like backpropagation, hyperparameter tuning, and transfer learning. Finally, it covers setting up data pipelines and deploying your system. With practical tips and actionable advice, this book equips readers with the skills and strategies needed to thrive in today's competitive AI landscape. By the end of this book, you will be equipped with the knowledge and practical skills to build

and deploy deep learning-powered hyper-personalization systems that deliver exceptional customer experiences. **WHAT YOU WILL LEARN**

- Understand about hyper-personalized AI models for tailored user experiences.
- Design principles of computer vision and NLP models.
- Inner working of transformers equipping readers to understand the intricacies of generative AI and large language models (LLMs) like ChatGPT.
- To get the best out of deep learning models through hyperparameter tuning and transfer learning.
- Learn how to build deployment pipelines to serve models into production environments seamlessly.

WHO THIS BOOK IS FOR This book caters to both beginners and experienced practitioners in the field of

data science and Machine Learning. Through practical examples, it simplifies complex ideas, linking them to design patterns.

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8. Hyperparameter Tuning
9. Transfer Learning
10. Setting Up Data and Deployment Pipelines

[Data Science for Marketing Analytics](#)
Packt Publishing Ltd

Turn unstructured data into valuable business insight Unstructured Data Analytics provides an accessible, non-

technical introduction to the analysis of unstructured data. Written by global experts in the analytics space, this book presents unstructured data analysis (UDA) concepts in a practical way, highlighting the broad scope of applications across industries, companies, and business functions. The discussion covers key aspects of UDA implementation, beginning with an explanation of the data and the information it provides, then moving into a holistic framework for implementation. Case studies show how real-world companies are leveraging UDA in security and customer management, and provide clear examples of both traditional business applications and newer, more innovative practices. Roughly 80 percent of today's data is

unstructured in the form of emails, chats, social media, audio, and video. These data assets contain a wealth of valuable information that can be used to great advantage, but accessing that data in a meaningful way remains a challenge for many companies. This book provides the baseline knowledge and the practical understanding companies need to put this data to work. Supported by research with several industry leaders and packed with frontline stories from leading organizations such as Google, Amazon, Spotify, LinkedIn, Pfizer Manulife, AXA, Monster Worldwide, Under Armour, the Houston Rockets, DELL, IBM, and SAS Institute, this book provide a framework for building and implementing a successful UDA center of excellence. You

will learn: How to increase Customer Acquisition and Customer Retention with UDA The Power of UDA for Fraud Detection and Prevention The Power of UDA in Human Capital Management & Human Resource The Power of UDA in Health Care and Medical Research The Power of UDA in National Security The Power of UDA in Legal Services The Power of UDA for product development The Power of UDA in Sports The future of UDA From small businesses to large

multinational organizations, unstructured data provides the opportunity to gain consumer information straight from the source. Data is only as valuable as it is useful, and a robust, effective UDA strategy is the first step toward gaining the full advantage. Unstructured Data Analytics lays this space open for examination, and provides a solid framework for beginning meaningful analysis.