

Deep Learning For Business With Python A Very Gentle Introduction To Business Analytics Using Deep Neural Networks

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Machine Learning for Business - Doug Hudgeon 2019-12-24
Summary Imagine predicting which customers are thinking about switching to a competitor or flagging potential process failures before they happen Think about the benefits of forecasting tedious business processes and back-office tasks Envision quickly gauging customer sentiment from social media content (even large volumes of it). Consider the competitive advantage of making decisions when you know the most likely future events Machine learning can deliver these and other advantages to your business, and it's never been easier to get started! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Machine learning can deliver huge benefits for everyday business tasks. With some guidance, you can get those big wins yourself without complex math or highly paid consultants! If you can crunch numbers in Excel, you can use

modern ML services to efficiently direct marketing dollars, identify and keep your best customers, and optimize back office processes. This book shows you how. About the book *Machine Learning for Business* teaches business-oriented machine learning techniques you can do yourself. Concentrating on practical topics like customer retention, forecasting, and back office processes, you'll work through six projects that help you form an ML-for-business mindset. To guarantee your success, you'll use the Amazon SageMaker ML service, which makes it a snap to turn your questions into results. What's inside
Identifying tasks suited to machine learning
Automating back office processes
Using open source and cloud-based tools
Relevant case studies
About the reader For technically inclined business professionals or business application developers.
About the author Doug Hudgeon and Richard Nichol specialize in maximizing the value of business data through AI and machine

learning for companies of any size. Table of Contents: PART 1 MACHINE LEARNING FOR BUSINESS 1 | How machine learning applies to your business PART 2 SIX SCENARIOS: MACHINE LEARNING FOR BUSINESS 2 | Should you send a purchase order to a technical approver? 3 | Should you call a customer because they are at risk of churning? 4 | Should an incident be escalated to your support team? 5 | Should you question an invoice sent by a supplier? 6 | Forecasting your company's monthly power usage 7 | Improving your company's monthly power usage forecast PART 3 MOVING MACHINE LEARNING INTO PRODUCTION 8 | Serving predictions over the web 9 | Case studies

Artificial Intelligence and Machine Learning for Business - Steven Finlay 2021

Deep Learning with Python - Francois Chollet 2017-11-30
Summary Deep Learning with Python introduces the field of deep learning using the Python

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

understanding through intuitive explanations and practical examples. You'll explore challenging concepts and practice with applications in computer vision, natural-language processing, and generative models. By the time you finish, you'll have the knowledge and hands-on skills to apply deep learning in your own projects.

What's Inside

- Deep learning from first principles
- Setting up your own deep-learning environment
- Image-classification models
- Deep learning for text and sequences
- Neural style transfer, text generation, and image generation

About the Reader

Readers need intermediate Python skills. No previous experience with Keras, TensorFlow, or machine learning is required.

About the Author

François Chollet works on deep learning at Google in Mountain View, CA. He is the creator of the Keras deep-learning library, as well as a contributor to the TensorFlow machine-learning framework. He also does deep-learning research, with a focus on

computer vision and the application of machine learning to formal reasoning. His papers have been published at major conferences in the field, including the Conference on Computer Vision and Pattern Recognition (CVPR), the Conference and Workshop on Neural Information Processing Systems (NIPS), the International Conference on Learning Representations (ICLR), and others.

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- Deep learning for text and sequences
- Advanced deep-learning best practices
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instance

Introduction to Deep Learning Business Applications for Developers

- Armando Vieira 2018-05-02

Discover the potential applications, challenges, and opportunities of deep learning from a business perspective with technical examples. These applications include image recognition, segmentation and annotation, video processing and annotation, voice recognition, intelligent personal assistants, automated translation, and autonomous vehicles. An Introduction to Deep Learning Business Applications for Developers covers some common DL algorithms such as content-based recommendation algorithms and natural language processing. You'll explore examples, such as video prediction with fully convolutional neural networks (FCNN) and residual neural networks (ResNets). You will also see applications of DL for controlling robotics, exploring the DeepQ learning algorithm with Monte Carlo Tree search

(used to beat humans in the game of Go), and modeling for financial risk assessment. There will also be mention of the powerful set of algorithms called Generative Adversarial Neural networks (GANs) that can be applied for image colorization, image completion, and style transfer. After reading this book you will have an overview of the exciting field of deep neural networks and an understanding of most of the major applications of deep learning. The book contains some coding examples, tricks, and insights on how to train deep learning models using the Keras framework. What You Will Learn Find out about deep learning and why it is so powerful Work with the major algorithms available to train deep learning models See the major breakthroughs in terms of applications of deep learning Run simple examples with a selection of deep learning libraries Discover the areas of impact of deep learning in business Who This Book Is For Data scientists, entrepreneurs, and business developers.

AI Crash Course - Hadelin de Ponteves 2019-11-29

Unlock the power of artificial intelligence with top Udemy AI instructor Hadelin de Ponteves. Key Features Learn from friendly, plain English explanations and practical activities Put ideas into action with 5 hands-on projects that show step-by-step how to build intelligent software Use AI to win classic video games and construct a virtual self-driving car Book Description Welcome to the Robot World ... and start building intelligent software now! Through his best-selling video courses, Hadelin de Ponteves has taught hundreds of thousands of people to write AI software. Now, for the first time, his hands-on, energetic approach is available as a book. Starting with the basics before easing you into more complicated formulas and notation, AI Crash Course gives you everything you need to build AI systems with reinforcement learning and deep learning. Five full working projects put the ideas into action, showing step-by-step

how to build intelligent software using the best and easiest tools for AI programming, including Python, TensorFlow, Keras, and PyTorch. AI Crash Course teaches everyone to build an AI to work in their applications. Once you've read this book, you're only limited by your imagination. What you will learn Master the basics of AI without any previous experience Build fun projects, including a virtual-self-driving car and a robot warehouse worker Use AI to solve real-world business problems Learn how to code in Python Discover the 5 principles of reinforcement learning Create your own AI toolkit Who this book is for If you want to add AI to your skillset, this book is for you. It doesn't require data science or machine learning knowledge. Just maths basics (high school level).

Deep Learning with Python - Nikhil Ketkar 2017-04-18

Discover the practical aspects of implementing deep-learning solutions using the rich Python ecosystem. This book bridges the gap between the academic

state-of-the-art and the industry state-of-the-practice by introducing you to deep learning frameworks such as Keras, Theano, and Caffe. The practicalities of these frameworks is often acquired by practitioners by reading source code, manuals, and posing questions on community forums, which tends to be a slow and a painful process. Deep Learning with Python allows you to ramp up to such practical know-how in a short period of time and focus more on the domain, models, and algorithms. This book briefly covers the mathematical prerequisites and fundamentals of deep learning, making this book a good starting point for software developers who want to get started in deep learning. A brief survey of deep learning architectures is also included. Deep Learning with Python also introduces you to key concepts of automatic differentiation and GPU computation which, while not central to deep learning, are critical when it comes to conducting large scale experiments. What You Will

Learn Leverage deep learning frameworks in Python namely, Keras, Theano, and Caffe Gain the fundamentals of deep learning with mathematical prerequisites Discover the practical considerations of large scale experiments Take deep learning models to production Who This Book Is For Software developers who want to try out deep learning as a practical solution to a particular problem. Software developers in a data science team who want to take deep learning models developed by data scientists to production.

Pro Machine Learning Algorithms - V Kishore

Ayyadevara 2018-06-30

Bridge the gap between a high-level understanding of how an algorithm works and knowing the nuts and bolts to tune your models better. This book will give you the confidence and skills when developing all the major machine learning models. In Pro Machine Learning Algorithms, you will first develop the algorithm in Excel so that you get a practical understanding of all the levers

that can be tuned in a model, before implementing the models in Python/R. You will cover all the major algorithms: supervised and unsupervised learning, which include linear/logistic regression; k-means clustering; PCA; recommender system; decision tree; random forest; GBM; and neural networks. You will also be exposed to the latest in deep learning through CNNs, RNNs, and word2vec for text mining. You will be learning not only the algorithms, but also the concepts of feature engineering to maximize the performance of a model. You will see the theory along with case studies, such as sentiment classification, fraud detection, recommender systems, and image recognition, so that you get the best of both theory and practice for the vast majority of the machine learning algorithms used in industry. Along with learning the algorithms, you will also be exposed to running machine-learning models on all the major cloud service providers. You are expected to have

minimal knowledge of statistics/software programming and by the end of this book you should be able to work on a machine learning project with confidence. What You Will Learn Get an in-depth understanding of all the major machine learning and deep learning algorithms Fully appreciate the pitfalls to avoid while building models Implement machine learning algorithms in the cloud Follow a hands-on approach through case studies for each algorithm Gain the tricks of ensemble learning to build more accurate models Discover the basics of programming in R/Python and the Keras framework for deep learning Who This Book Is For Business analysts/ IT professionals who want to transition into data science roles. Data scientists who want to solidify their knowledge in machine learning. [Practical Machine Learning with Python](#) - Dipanjan Sarkar 2017-12-20 Master the essential skills needed to recognize and solve complex problems with

machine learning and deep learning. Using real-world examples that leverage the popular Python machine learning ecosystem, this book is your perfect companion for learning the art and science of machine learning to become a successful practitioner. The concepts, techniques, tools, frameworks, and methodologies used in this book will teach you how to think, design, build, and execute machine learning systems and projects successfully. Practical Machine Learning with Python follows a structured and comprehensive three-tiered approach packed with hands-on examples and code. Part 1 focuses on understanding machine learning concepts and tools. This includes machine learning basics with a broad overview of algorithms, techniques, concepts and applications, followed by a tour of the entire Python machine learning ecosystem. Brief guides for useful machine learning tools, libraries and frameworks are also covered. Part 2 details standard machine learning

pipelines, with an emphasis on data processing analysis, feature engineering, and modeling. You will learn how to process, wrangle, summarize and visualize data in its various forms. Feature engineering and selection methodologies will be covered in detail with real-world datasets followed by model building, tuning, interpretation and deployment. Part 3 explores multiple real-world case studies spanning diverse domains and industries like retail, transportation, movies, music, marketing, computer vision and finance. For each case study, you will learn the application of various machine learning techniques and methods. The hands-on examples will help you become familiar with state-of-the-art machine learning tools and techniques and understand what algorithms are best suited for any problem. Practical Machine Learning with Python will empower you to start solving your own problems with machine learning today! What You'll Learn Execute end-to-end machine learning projects and

systems Implement hands-on examples with industry standard, open source, robust machine learning tools and frameworks Review case studies depicting applications of machine learning and deep learning on diverse domains and industries Apply a wide range of machine learning models including regression, classification, and clustering. Understand and apply the latest models and methodologies from deep learning including CNNs, RNNs, LSTMs and transfer learning. Who This Book Is For IT professionals, analysts, developers, data scientists, engineers, graduate students

Machine Learning - Andrew Park 2020-01-21

Master the world of Machine Learning and Data Science with this comprehensive 2-in-1 bundle. If you want to learn more about Machine Learning and Data Science or how to master them with Python quickly and easily, then keep reading. Data Science and Machine Learning are the biggest buzzwords in the

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

machines learn from data. In book one, PYTHON MACHINE LEARNING, you will learn: What is Machine Learning and how it is applied in real-world situations Understanding the differences between Machine Learning, Deep Learning, and Artificial Intelligence Machine learning training models, Regression techniques and Linear Regression in Python How to use Lists and Modules in Python The 12 essential libraries for Machine Learning in Python Artificial Neural Networks And Much More! In book two, PYTHON DATA SCIENCE, you will learn: What Data Science is all about and why so many companies are using it to give them a competitive edge. Why Python and how to use it to implement Data Science The main Data Structures & Object-Oriented Programming, Functions and Modules in Python with practical codes and exercises The 7 most important algorithms and models in Data Science Data Aggregation, Group Operations, Databases and Data in the Cloud 9

important Data Mining techniques in Data Science And So Much More! Where most books only focus on how collecting and cleaning the data, this book goes further, providing guidance on how to perform a proper analysis in order to extract precious information that may be vital for a business. Don't miss the opportunity to master the key points of Machine Learning technology and understand how researchers are breaking the boundaries of Data Science to mimic human intelligence in machines. Even if some concepts of Machine Learning algorithms can appear complex to most computer programming beginners, this book takes the time to explain them in a simple and concise way. Understanding Machine Learning and Data Science is easier than it looks. You just need the right guidance. And this book provides all the knowledge you need in a simple and practical way. Regardless of your previous experience, you will learn, the techniques to manipulate and process

datasets, the principles of Python programming, and its most important real-world applications. Would You Like To Know More? Scroll Up and Click on the BUY NOW Button to Get Your Copy!

Python Machine Learning - Zach Codings 2019-10-21

What is machine learning and why would a programmer want to learn how to use it? Is artificial intelligence the same as working with machine learning? Are you interested in becoming a machine learning expert but don't know where to start from? Keep reading... The future of our world is evolving towards an era where interaction with machines form the foundation of most tasks we perform. In light of this, it is important to gain actionable knowledge in machine learning technologies and skills. These skills will be useful in the near future as you maneuver through different career paths. Today data is driving many business processes, and without data, it is impossible to imagine where many of the top businesses would be. Imagine

how you used to struggle with search results online back in the day, and how easy it is to look for something online today and get the right results. All this is possible through machine learning models. What you need is a foundational approach to learning the basics of machine learning. You can use this knowledge to build your expertise in machine learning over time. While this is an introductory level book, it introduces you to vast concepts in machine learning that will be important to your career. By the end of the book, you will have learned so much about machine learning and the respective python libraries that you will use when building models all the time. An important aspect of machine learning that we must stress even at this juncture is data analysis. Data is key to the success of machine learning and deep learning models. When implemented properly, the kind of data you have will make a big difference in whether your model succeeds or not. Since we are discussing

machine learning and the future of computing as we know it, we will also dedicate some time to discussing the current trends in the world, and how they affect our ability to perform some tasks. In this case, we will look at the Internet of Things (IoT) and how we can use different approaches to integrate machine learning and IoT models. Throughout these pages, you will learn: The Fundamentals of Python for Machine Learning Data Analysis in Python Comparing Deep Learning and Machine Learning Machine Learning with Scikit-Learn Deep Learning with TensorFlow Deep Learning with PyTorch and Keras The Role of Machine Learning in the Internet of Things (IoT) Looking to the Future with Machine Learning And much more... Even if you don't have any background in machine learning and Python programming, this book will give you the tools to develop machine learning models. Arm yourself with all this knowledge! Scroll up and click

the BUY NOW BUTTON!

The Deep Learning Workshop - Mirza Rahim Baig 2020-07-31

Take a hands-on approach to understanding deep learning and build smart applications that can recognize images and interpret text Key Features Understand how to implement deep learning with TensorFlow and Keras Learn the fundamentals of computer vision and image recognition Study the architecture of different neural networks Book Description Are you fascinated by how deep learning powers intelligent applications such as self-driving cars, virtual assistants, facial recognition devices, and chatbots to process data and solve complex problems? Whether you are familiar with machine learning or are new to this domain, The Deep Learning Workshop will make it easy for you to understand deep learning with the help of interesting examples and exercises throughout. The book starts by highlighting the relationship between deep learning,

machine learning, and artificial intelligence and helps you get comfortable with the TensorFlow 2.0 programming structure using hands-on exercises. You'll understand neural networks, the structure of a perceptron, and how to use TensorFlow to create and train models. The book will then let you explore the fundamentals of computer vision by performing image recognition exercises with convolutional neural networks (CNNs) using Keras. As you advance, you'll be able to make your model more powerful by implementing text embedding and sequencing the data using popular deep learning solutions. Finally, you'll get to grips with bidirectional recurrent neural networks (RNNs) and build generative adversarial networks (GANs) for image synthesis. By the end of this deep learning book, you'll have learned the skills essential for building deep learning models with TensorFlow and Keras. What you will learn Understand how deep learning, machine learning, and artificial

intelligence are different Develop multilayer deep neural networks with TensorFlow Implement deep neural networks for multiclass classification using Keras Train CNN models for image recognition Handle sequence data and use it in conjunction with RNNs Build a GAN to generate high-quality synthesized images Who this book is for If you are interested in machine learning and want to create and train deep learning models using TensorFlow and Keras, this workshop is for you. A solid understanding of Python and its packages, along with basic machine learning concepts, will help you to learn the topics quickly.

[Deep Learning with Python](#) - Benjamin Smith 2021-03-14

This book is not only for programmers and IT professionals but also for businesspeople who are looking forward to boosting their average sales and customer experience. This book contains all the relevant topics that you'll want to know about deep

learning neural networks. You will learn some amazing facts about the role of artificial intelligence in our daily lives. Deep learning is gradually inching toward grabbing hold of all businesses across the world. What makes this book interesting and unique is the fact that it contains practical examples of deep learning neural network that you can study to increase your understanding of these neural networks. The book explains how, as a professional, you can introduce AI in your operations. You'll discover: -Python Data Types-Python User Input and Loops-Python Input()-Python Loops-Python Functions-Python Classes-Artificial Intelligence - Machine Learning-Deep Learning -Linear Regression - Artificial Intelligence in Business-AI in Business-AI in Customer Service-Self-Driving Cars-Generation of Texts-Predicting Earthquake and Cancer-The Future of Deep Learning-Artificial Neural Networks-Convolutional Neural Network-Implementation Using Keras-Deep Learning with

Keras-Project Debater-IBM Watson-Ethical Implications of Deep Learning-Loss of Jobs-Racist Robots-Drawbacks of Deep LearningSo what are you waiting for? Get started today by clicking the Buy Now button!Are you interested in taking your deep learning knowledge to the next level? Then this is the book for you! Machine and deep learning are the future, and there's no getting away from that. So learning it now, and learning how to do it the right way will put you ahead of the crowd. Deep learning is all about understanding and learning about neural networks, and Python is the best computer programming language to do that with. Learning to program is not easy, but consistent practice is the key. Learning to program efficiently in Python and building deep learning neural networks becomes simple to do with practice and guidance.In this book, you will learn: -The basics of the Python programming language-All about variables, strings, classes, statements,

dictionaries, functions, and more-What Artificial Intelligence is-What Deep Learning is-How to build a deep neural network with Keras-How to build a deep learning convolutional neural network-The practical applications of deep learning-The benefits and the drawbacks of deep learningAnd so much more!Don't delay. Start your advanced deep learning journey today by clicking the Buy Now button!

Machine Learning - Steven Williams 2020-12-03

[Python Deep Learning](#) - Valentino Zocca 2017-04-28
Take your machine learning skills to the next level by mastering Deep Learning concepts and algorithms using Python. About This Book Explore and create intelligent systems using cutting-edge deep learning techniques Implement deep learning algorithms and work with revolutionary libraries in Python Get real-world examples and easy-to-follow tutorials on Theano, TensorFlow, H2O and more Who This Book Is For This

book is for Data Science practitioners as well as aspirants who have a basic foundational understanding of Machine Learning concepts and some programming experience with Python. A mathematical background with a conceptual understanding of calculus and statistics is also desired. What You Will Learn Get a practical deep dive into deep learning algorithms Explore deep learning further with Theano, Caffe, Keras, and TensorFlow Learn about two of the most powerful techniques at the core of many practical deep learning implementations: Auto-Encoders and Restricted Boltzmann Machines Dive into Deep Belief Nets and Deep Neural Networks Discover more deep learning algorithms with Dropout and Convolutional Neural Networks Get to know device strategies so you can use deep learning algorithms and libraries in the real world In Detail With an increasing interest in AI around the world, deep learning has attracted a great deal of public attention. Every day, deep learning

algorithms are used broadly across different industries. The book will give you all the practical information available on the subject, including the best practices, using real-world use cases. You will learn to recognize and extract information to increase predictive accuracy and optimize results. Starting with a quick recap of important machine learning concepts, the book will delve straight into deep learning principles using Sci-kit learn. Moving ahead, you will learn to use the latest open source libraries such as Theano, Keras, Google's TensorFlow, and H2O. Use this guide to uncover the difficulties of pattern recognition, scaling data with greater accuracy and discussing deep learning algorithms and techniques. Whether you want to dive deeper into Deep Learning, or want to investigate how to get more out of this powerful technology, you'll find everything inside. Style and approach Python Machine Learning by example follows practical hands on approach. It

walks you through the key elements of Python and its powerful machine learning libraries with the help of real world projects. [Python Deep Learning Projects - Matthew Lamons 2018-10-31](#) Insightful projects to master deep learning and neural network architectures using Python and Keras Key Features Explore deep learning across computer vision, natural language processing (NLP), and image processing Discover best practices for the training of deep neural networks and their deployment Access popular deep learning models as well as widely used neural network architectures Book Description Deep learning has been gradually revolutionizing every field of artificial intelligence, making application development easier. Python Deep Learning Projects imparts all the knowledge needed to implement complex deep learning projects in the field of computational linguistics and computer vision. Each of these projects is unique, helping you progressively master the

subject. You'll learn how to implement a text classifier system using a recurrent neural network (RNN) model and optimize it to understand the shortcomings you might experience while implementing a simple deep learning system. Similarly, you'll discover how to develop various projects, including word vector representation, open domain question answering, and building chatbots using seq-to-seq models and language modeling. In addition to this, you'll cover advanced concepts, such as regularization, gradient clipping, gradient normalization, and bidirectional RNNs, through a series of engaging projects. By the end of this book, you will have gained knowledge to develop your own deep learning systems in a straightforward way and in an efficient way. What you will learn: Set up a deep learning development environment on Amazon Web Services (AWS). Apply GPU-powered instances as well as the deep learning AMI. Implement seq-to-seq

networks for modeling natural language processing (NLP). Develop an end-to-end speech recognition system. Build a system for pixel-wise semantic labeling of an image. Create a system that generates images and their regions. Who this book is for: Python Deep Learning Projects is for you if you want to get insights into deep learning, data science, and artificial intelligence. This book is also for those who want to break into deep learning and develop their own AI projects. It is assumed that you have sound knowledge of Python programming. *Market Data Analysis Using JMP (Hardcover edition)* - Walter R. Paczkowski 2018-02-05 With the powerful interactive and visual functionality of JMP, you can dynamically analyze market data to transform it into actionable and useful information with clear, concise, and insightful reports and displays. *Market Data Analysis Using JMP* is a unique example-driven book because it has a specific application focus:

market data analysis. A working knowledge of JMP will help you turn your market data into vital knowledge that will help you succeed in a highly competitive, fast-moving, and dynamic business world. This book can be used as a stand-alone resource for working professionals, or as a supplement to a business school course in market data research. Anyone who works with market data will benefit from reading and studying this book, then using JMP to apply the dynamic analytical concepts to their market data. After reading this book, you will be able to quickly and effortlessly use JMP to: prepare market data for analysis use and interpret sophisticated statistical methods build choice models estimate regression models to turn data into useful and actionable information

Market Data Analysis Using JMP will teach you how to use dynamic graphics to illustrate your market data analysis and explore the vast possibilities that your data can offer!

Python for Data Science -

Mik Arduino 2020-11-28

If you are tired of reading without understanding and want to learn the value of big data and artificial intelligence simply and quickly, then keep reading... Today 91% of Python programmers are not quite prepared. This is what the IT companies say, according to a recent survey. Do you know why? The reason is that they have no notions of artificial intelligence, so future programmers will no longer find work without having knowledge of this particular field that is constantly evolving. Artificial intelligence has made great strides over the years, and by 2024 it is estimated that 77% of programmers will have to be experts in this field to implement it in the various programming languages. So if you are such a programmer or aspirant and ignore the importance that Python data analysis and artificial intelligence have in our future, then you will be cut off from the business world. The solution? You need to learn these things and, above all, do it in a clear,

simple, and practical way. The goal of Python for Data Science is to give you an advanced level training on Python, artificial intelligence, and deep machine learning as quickly as possible. What are some points you will learn in this book? - Artificial Intelligence: How Does it Work? How is it Used? - The Key Elements of Machine Learning - Machine Learning vs Deep Learning - Data Science vs Business Intelligence - The Data Science Lifecycle - The Value of Big Data Explained to a Child - 4 Tips for Data Cleaning and Organizing Your Data - Python Data Analysis 360° - 6 Different Machine Learning Algorithms - How to Handle Data Visualizations Python for Data Science is perfect for those who already look to the future and want to ensure a job for the next 20 years by beating the competition, even if you know nothing about computer codes and you have never turned on a computer in your life. Would You Like to Know More? Buy now to find out about Python for Data Science.

Machine Learning - Andrew

Park 2020-11-14

Master The World Of Machine Learning And Data Science With This Comprehensive 2-in-1 bundle! If you want to learn more about Machine Learning and Data Science or how to master them with Python quickly and easily, then keep reading. Data Science and Machine Learning are one of the biggest buzzwords in the business world nowadays. Many businesses know the importance of collecting information, but as they can collect so much data in a short period, the real question is: "what is the next step?" Data Science includes all the different steps that you take with the data: collecting and cleaning them, analyzing them, applying Machine Learning algorithms and models, and then presenting your findings from the analysis with some good Data Visualizations. Machines and automation represent a huge part of our daily life. They are becoming part of our experience, and existence. Artificial Intelligence is currently one of the most

thriving fields any programmer would wish to delve into, and for a good reason: this is the future! Simply put, Machine Learning is about teaching machines to think and make decisions as we would. The difference between the way machines learn and the way we do is that while for the most part we learn from experiences, machines learn from data. In book one, PYTHON MACHINE LEARNING, you will learn: What is Machine Learning and how it is applied in real-world situations Understanding the differences between Machine Learning, Deep Learning, and Artificial Intelligence Machine learning training models, Regression techniques and Linear Regression in Python How to use Lists and Modules in Python The 12 essential libraries for Machine Learning in Python Artificial Neural Networks And Much More! In book two, PYTHON DATA SCIENCE, you will learn: What Data Science is all about and why so many companies are using it to give them a competitive edge. Why Python

and how to use it to implement Data Science The main Data Structures & Object-Oriented Programming, Functions and Modules in Python with practical codes and exercises The 7 most important algorithms and models in Data Science Data Aggregation, Group Operations, Databases and Data in the Cloud 9 important Data Mining techniques in Data Science And So Much More! Where most books only focus on how collecting and cleaning the data, this book goes further, providing guidance on how to perform a proper analysis in order to extract precious information that may be vital for a business. Don't miss the opportunity to master the key points of Machine Learning technology and understand how researchers are breaking the boundaries of Data Science to mimic human intelligence in machines. Even if some Machine Learning concepts and algorithms can appear complex to most computer programming beginners, this book takes the time to explain them in a

simple and concise way. Understanding Machine Learning and Data Science is easier than it looks. You just need the right guidance. And this bundle provides all the knowledge you need in a simple and practical way. Regardless of your previous experience, you will learn the techniques to manipulate and process datasets, the principles of Python programming, and its most important real-world applications. Would You Like To Know More? Scroll Up and Click the BUY NOW Button to Get Your Copy!

Deep Learning with Structured Data - Mark Ryan
2020-12-29

Deep Learning with Structured Data teaches you powerful data analysis techniques for tabular data and relational databases. Summary Deep learning offers the potential to identify complex patterns and relationships hidden in data of all sorts. Deep Learning with Structured Data shows you how to apply powerful deep learning analysis techniques to the kind of structured, tabular data

you'll find in the relational databases that real-world businesses depend on. Filled with practical, relevant applications, this book teaches you how deep learning can augment your existing machine learning and business intelligence systems. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Here's a dirty secret: Half of the time in most data science projects is spent cleaning and preparing data. But there's a better way: Deep learning techniques optimized for tabular data and relational databases deliver insights and analysis without requiring intense feature engineering. Learn the skills to unlock deep learning performance with much less data filtering, validating, and scrubbing. About the book Deep Learning with Structured Data teaches you powerful data analysis techniques for tabular data and relational databases. Get started using a dataset based on the Toronto transit system.

As you work through the book, you'll learn how easy it is to set up tabular data for deep learning, while solving crucial production concerns like deployment and performance monitoring. What's inside When and where to use deep learning The architecture of a Keras deep learning model Training, deploying, and maintaining models Measuring performance About the reader For readers with intermediate Python and machine learning skills. About the author Mark Ryan is a Data Science Manager at Intact Insurance. He holds a Master's degree in Computer Science from the University of Toronto.

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- 1 Why deep learning with structured data?
- 2 Introduction to the example problem and Pandas dataframes
- 3 Preparing the data, part 1: Exploring and cleansing the data
- 4 Preparing the data, part 2: Transforming the data
- 5 Preparing and building the model
- 6 Training the model and running experiments
- 7 More experiments with the trained model
- 8 Deploying the model
- 9

Recommended next steps
Practical Machine Learning for Data Analysis Using Python - Abdulhamit Subasi
2020-06-05

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

Machine Learning - Dan Phillips
2020-10-16

Are you an aspirant software developer? Do you start from zero or do you want to expand your knowledge of the

incredible world of machine learning? Do you want to understand how to take advantage of big data from big tech companies (Google, Facebook and Amazon) to reach your objectives? Then keep reading. Machine learning is the path to the future: the most profitable way to increase your career or business! This book contains detailed information about Machine Learning and its more area of progress and algorithms. The book will help you develop fundamental and advance information in the Artificial Intelligence, Data Science and Machine Learning. Machine learning is among computer science's most rising and money-making areas! This book includes:

- Machine Learning Introduction
- Why Machine Learning Have Become So Successful?
- Machine Learning Utilizations
- Applications of Machine Learning
- Artificial Intelligence and its Importance
- Machine Learning Algorithms Types
- Machine Learning Regression Techniques
- Random Forests vs Decision

Trees - What is an Artificial Neural Network? - Why Should We Use Data Science and How it can help in Business? - Why Python and Data Science Mix Well? - Data Science Statistical Learning - Machine Learning Algorithms for Data Science - How Machine Learning Is Reshaping Marketing? - Solutions for Small Businesses Using Big Data - ...and much more!!! Don't wait anymore, press the Buy Now Button and get started!

Introduction to Deep Learning and Neural Networks with PythonTM - Ahmed Fawzy Gad 2020-12-07
Introduction to Deep Learning and Neural Networks with PythonTM: A Practical Guide is an intensive step-by-step guide for neuroscientists to fully understand, practice, and build neural networks. Providing math and PythonTM code examples to clarify neural network calculations, by book's end readers will fully understand how neural networks work starting from the simplest model $Y=X$ and building from scratch. Details

and explanations are provided on how a generic gradient descent algorithm works based on mathematical and PythonTM examples, teaching you how to use the gradient descent algorithm to manually perform all calculations in both the forward and backward passes of training a neural network. Examines the practical side of deep learning and neural networks Provides a problem-based approach to building artificial neural networks using real data Describes PythonTM functions and features for neuroscientists Uses a careful tutorial approach to describe implementation of neural networks in PythonTM Features math and code examples (via companion website) with helpful instructions for easy implementation

Artificial Intelligence Business Applications - Oliver Tensor 2020-12-24

Deep Learning with Python - Benjamin Smith 2020-04-26
What do you look for when you are in the market - be it online or physical - when you are out

buying your favorite book? You look for the best content that covers almost all aspects of the given topic. You want a book that has got all the information you need, and that is written concisely and clearly. This book is not only for programmers and IT professionals but also for businesspeople who are looking forward to boosting their average sales and customer experience. This book contains all the relevant topics that you'll want to know about deep learning neural networks. You will learn some amazing facts about the role of artificial intelligence in our daily lives. Deep learning is gradually inching toward grabbing hold of all businesses across the world. What makes this book interesting and unique is the fact that it contains practical examples of deep learning neural network that you can study to increase your understanding of these neural networks. The book explains how, as a professional, you can introduce AI in your operations. You'll discover: -Python Data Types-Python User Input and

Loops-Python Input()-Python Loops-Python Functions-Python Classes-Artificial Intelligence - Machine Learning-Deep Learning -Linear Regression - Artificial Intelligence in Business-AI in Business-AI in Customer Service-Self-Driving Cars-Generation of Texts-Predicting Earthquake and Cancer-The Future of Deep Learning-Artificial Neural Networks-Convolutional Neural Network-Implementation Using Keras-Deep Learning with Keras-Project Debater-IBM Watson-Ethical Implications of Deep Learning-Loss of Jobs-Racist Robots-Drawbacks of Deep LearningSo what are you waiting for? Get started today by clicking the Buy Now button!
[Python Machine Learning Projects](#) - Lisa Tagliaferri
2019-05-02
As machine learning is increasingly leveraged to find patterns, conduct analysis, and make decisions — sometimes without final input from humans who may be impacted by these findings — it is crucial to invest in bringing more stakeholders into the fold. This book of

Python projects in machine learning tries to do just that: to equip the developers of today and tomorrow with tools they can use to better understand, evaluate, and shape machine learning to help ensure that it is serving us all. This book will set you up with a Python programming environment if you don't have one already, then provide you with a conceptual understanding of machine learning in the chapter "An Introduction to Machine Learning." What follows next are three Python machine learning projects. They will help you create a machine learning classifier, build a neural network to recognize handwritten digits, and give you a background in deep reinforcement learning through building a bot for Atari.

Deep Learning with Python -
Chao Pan 2016-06-14

***** BUY NOW (will soon return to 24.77 \$) *****Are you thinking of learning deep Learning using Python? (For Beginners Only) If you are looking for a beginners guide to learn deep learning, in just a

few hours, this book is for you. From AI Sciences Publisher Our books may be the best one for beginners; it's a step-by-step guide for any person who wants to start learning Artificial Intelligence and Data Science from scratch. It will help you in preparing a solid foundation and learn any other high-level courses. To get the most out of the concepts that would be covered, readers are advised to adopt a hands on approach, which would lead to better mental representations. Step-by-Step Guide and Visual Illustrations and Examples This book and the accompanying examples, you would be well suited to tackle problems, which pique your interests using machine learning and deep learning models. Book Objectives This book will help you: Have an appreciation for deep learning and an understanding of their fundamental principles. Have an elementary grasp of deep learning concepts and algorithms. Have achieved a technical background in deep learning and neural networks

using Python. Target Users The book designed for a variety of target audiences. Anyone who is intrigued by how algorithms arrive at predictions but has no previous knowledge of the field. Software developers and engineers with a strong programming background but seeking to break into the field of machine learning. Seasoned professionals in the field of artificial intelligence and deep learning who desire a bird's eye view of current techniques and approaches. What's Inside This Book? Introduction What is Artificial Intelligence, Machine Learning and Deep Learning? Mathematical Foundations of Deep Learning Understanding Machine Learning Models Evaluation of Machine Learning Models: Overfitting, Underfitting, Bias Variance Tradeoff Fully Connected Neural Networks Convolutional Neural Networks Recurrent Neural Networks Generative Adversarial Networks Deep Reinforcement Learning Introduction to Deep Neural Networks with Keras A First Look at Neural Networks in

Keras Introduction to Pytorch The Pytorch Deep Learning Framework Your First Neural Network in Pytorch Deep Learning for Computer Vision Build a Convolutional Neural Network Deep Learning for Natural Language Processing Working with Sequential Data Build a Recurrent Neural Network Frequently Asked Questions Q: Is this book for me and do I need programming experience? A: if you want to smash Deep Learning from scratch, this book is for you. Little programming experience is required. If you already wrote a few lines of code and recognize basic programming statements, you'll be OK. Q: Can I have a refund if this book doesn't fit for me? A: Yes, Amazon refund you if you aren't satisfied, for more information about the amazon refund service please go to the amazon help platform. We will also be happy to help you if you send us an email.***** MONEY BACK GUARANTEE BY AMAZON ***** Editorial Reviews "This is an excellent book, it is a very good introduction to deep

learning and neural networks. The concepts and terminology are clearly explained. The book also points out several good locations on the internet where users can obtain more information. I was extremely happy with this book and I recommend it for all beginners"

- Prof. Alain Simon, EDHEC Business School. Statistician and DataScientist.

Machine Learning with Python - Mark Coding 2020-10-25

Are you tired of taking risks, hoping things will pay off big but you are always worried about the risks? Have you been hearing about some of the buzzwords in the world of business like data science, data analysis, and machine learning, but worry they will be too hard for you to catch onto and learn more about? Are you looking for ways to know more about your industry, what products to release, and how to gain a competitive edge overall, without all of the risks? If this sounds like something you have dealt with, then machine learning for Python is the best option for you! This guidebook

is going to dive into all of the parts of this that you need to know right now! Inside, we will explore what machine learning is all about, how to add it into Python, and so many of the algorithms and steps you need to really make all of this a reality for your needs. Inside this guidebook, be prepared to take some of the basics of Python and machine learning, and turn yourself into an expert, someone who knows with certainty that all of your decisions are the right ones, and who has data and information to back them all up. Some of the different topics we will discuss in this guidebook to help make this a reality, and to ensure we can learn and make good predictions, includes: -The basics of machine learning and artificial intelligence. -How to work with Python and machine learning to get started with all the options that work with this topic. -How to work with some of the different Python machine learning algorithms out there for you to choose from. -How to work with a model of machine learning and go through the

process of having your computer learn on its own. - More examples of how to work with Python and machine learning together. -The importance of working with neural networks and what all of this can mean to your code. -A look at deep learning and data science that can take your machine learning to the next level. -The steps you need to know to get started with data Preprocessing. -A look at where machine learning and more will be able to help lead us to the future. Working with machine learning for Python is an important topic a lot of businesses are diving into now more than ever. They see the value of working with data science, and what this process can do for them in terms of their success and their sound business decisions. When you are ready to learn how to use machine learning for Python for some of your business and data science needs, make sure to take a look at this guidebook to get started.

Data Science for Beginners -
Russel R Russo 2020-02-02

Are you fascinated by Data Science but it seems too complicated? Do you want to learn everything about Artificial Intelligence but it looks like it is an exclusive club? If this is you, please keep reading: you are in the right place, looking at the right book. Since you are reading these lines you have probably already noticed this: Artificial Intelligence is all around you. Your smartphone that suggests you the next word you want to type, your Netflix account that recommends you the series you may like or Spotify's personalised playlists. This is how machines are learning from you in everyday life. And these examples are only the surface of this technological revolution. Everyone knows (well, almost everyone) how important Data Science is for the growth and success of the biggest tech companies, and many people know about the Machine Learning impact in science, medicine and statistics. Also, it is quite commonly known that Artificial Intelligence, Machine Learning

Deep Learning, and the mastering of their most important language, Python, can offer a lot of possibilities in work and business. And you yourself are probably thinking "I surely can see that opportunity, but how can I seize it?" Well, if you kept reading so far you are on the right track to answer your question. Either if you want to start your own AI enterprise, to empower your business or to work in the greatest and most innovative companies, Artificial Intelligence is the future, and Python and Neural Networks programming is The Skill you want to have. The good news is that there is no exclusive club, you can easily (if you commit, of course) learn how to find your way around Artificial Intelligence, Data Science, Deep Learning and Machine Learning, and to do that Data Science for Beginners is the best way. In Data Science for Beginners you will discover: The most effective starting points when training deep neural nets The smartest way to approach Machine Learning

What libraries are and which one is the best for you Tips and tricks for a smooth and painless journey into artificial intelligence Why decision tree is the way The TensorFlow parts that are going to make your coding life easy Why python is the best language for Machine Learning How to bring your ideas into a computer How to talk with deep neural networks How to deal with variables and data The most common myths about Machine Learning debunked Even If you don't know anything about programming, understanding Data Science is the ideal place to start. Still, if you already know something about programming but not about how to apply it to Artificial Intelligence, Data Science is what you want to understand. Download now Data Science for Beginners to start your path of Artificial Intelligence. [Machine Learning for Time Series Forecasting with Python](#) - Francesca Lazzeri 2020-12-15 Learn how to apply the principles of machine learning to time series modeling with

this indispensable resource
Machine Learning for Time Series Forecasting with Python is an incisive and straightforward examination of one of the most crucial elements of decision-making in finance, marketing, education, and healthcare: time series modeling. Despite the centrality of time series forecasting, few business analysts are familiar with the power or utility of applying machine learning to time series modeling. Author Francesca Lazzeri, a distinguished machine learning scientist and economist, corrects that deficiency by providing readers with comprehensive and approachable explanation and treatment of the application of machine learning to time series forecasting. Written for readers who have little to no experience in time series forecasting or machine learning, the book comprehensively covers all the topics necessary to: Understand time series forecasting concepts, such as stationarity, horizon, trend, and seasonality Prepare time series data for

modeling Evaluate time series forecasting models' performance and accuracy Understand when to use neural networks instead of traditional time series models in time series forecasting Machine Learning for Time Series Forecasting with Python is full of real-world examples, resources and concrete strategies to help readers explore and transform data and develop usable, practical time series forecasts. Perfect for entry-level data scientists, business analysts, developers, and researchers, this book is an invaluable and indispensable guide to the fundamental and advanced concepts of machine learning applied to time series modeling. Python Machine Learning - Sebastian Raschka 2015-09-23 Unlock deeper insights into Machine Learning with this vital guide to cutting-edge predictive analytics About This Book Leverage Python's most powerful open-source libraries for deep learning, data wrangling, and data visualization Learn effective strategies and best practices to

improve and optimize machine learning systems and algorithms Ask – and answer – tough questions of your data with robust statistical models, built for a range of datasets Who This Book Is For If you want to find out how to use Python to start answering critical questions of your data, pick up Python Machine Learning – whether you want to get started from scratch or want to extend your data science knowledge, this is an essential and unmissable resource. What You Will Learn Explore how to use different machine learning models to ask different questions of your data Learn how to build neural networks using Keras and Theano Find out how to write clean and elegant Python code that will optimize the strength of your algorithms Discover how to embed your machine learning model in a web application for increased accessibility Predict continuous target outcomes using regression analysis Uncover hidden patterns and structures in data with clustering Organize

data using effective pre-processing techniques Get to grips with sentiment analysis to delve deeper into textual and social media data In Detail Machine learning and predictive analytics are transforming the way businesses and other organizations operate. Being able to understand trends and patterns in complex data is critical to success, becoming one of the key strategies for unlocking growth in a challenging contemporary marketplace. Python can help you deliver key insights into your data – its unique capabilities as a language let you build sophisticated algorithms and statistical models that can reveal new perspectives and answer key questions that are vital for success. Python Machine Learning gives you access to the world of predictive analytics and demonstrates why Python is one of the world's leading data science languages. If you want to ask better questions of data, or need to improve and extend the capabilities of your machine learning systems, this

practical data science book is invaluable. Covering a wide range of powerful Python libraries, including scikit-learn, Theano, and Keras, and featuring guidance and tips on everything from sentiment analysis to neural networks, you'll soon be able to answer some of the most important questions facing you and your organization. Style and approach Python Machine Learning connects the fundamental theoretical principles behind machine learning to their practical application in a way that focuses you on asking and answering the right questions. It walks you through the key elements of Python and its powerful machine learning libraries, while demonstrating how to get to grips with a range of statistical models.

Machine Learning - Dan Phillips 2020-10-26

Are you an aspirant software developer? Do you start from zero or do you want to expand your knowledge of the incredible world of Machine Learning? Do you want to

understand how to take advantage of big data from big tech companies (Google, Facebook and Amazon) to reach your objectives? Then keep reading. Machine learning is the path to the future: the most profitable way to increase your career or business! This book contains detailed information about Machine Learning and its more area of progress and algorithms. The book will help you develop fundamental and advance information in the Artificial Intelligence, Data Science and Machine Learning. Machine learning is among computer science's most rising and money-making areas! This book includes: - Machine Learning Introduction - Why Machine Learning Have Become So Successful? - Machine Learning Utilizations - Applications of Machine Learning - Artificial Intelligence and its Importance - Machine Learning Algorithms Types - Machine Learning Regression Techniques - Random Forests vs Decision Trees - What is an Artificial Neural Network? - Why Should

We Use Data Science and How it can help in Business? - Why Python and Data Science Mix Well? - Data Science Statistical Learning - Machine Learning Algorithms for Data Science - How Machine Learning Is Reshaping Marketing? - Solutions for Small Businesses Using Big Data ...and much more!!! Don't wait anymore, press the Buy Now Button and get started!

[Learn Keras for Deep Neural Networks](#) - Jojo Moolayil
2018-12-07

Learn, understand, and implement deep neural networks in a math- and programming-friendly approach using Keras and Python. The book focuses on an end-to-end approach to developing supervised learning algorithms in regression and classification with practical business-centric use-cases implemented in Keras. The overall book comprises three sections with two chapters in each section. The first section prepares you with all the necessary basics to get started in deep learning. Chapter 1 introduces you to the

world of deep learning and its difference from machine learning, the choices of frameworks for deep learning, and the Keras ecosystem. You will cover a real-life business problem that can be solved by supervised learning algorithms with deep neural networks. You'll tackle one use case for regression and another for classification leveraging popular Kaggle datasets. Later, you will see an interesting and challenging part of deep learning: hyperparameter tuning; helping you further improve your models when building robust deep learning applications. Finally, you'll further hone your skills in deep learning and cover areas of active development and research in deep learning. At the end of Learn Keras for Deep Neural Networks, you will have a thorough understanding of deep learning principles and have practical hands-on experience in developing enterprise-grade deep learning solutions in Keras. What You'll Learn Master fast-paced practical deep learning

concepts with math- and programming-friendly abstractions. Design, develop, train, validate, and deploy deep neural networks using the Keras framework Use best practices for debugging and validating deep learning models Deploy and integrate deep learning as a service into a larger software service or product Extend deep learning principles into other popular frameworks Who This Book Is For Software engineers and data engineers with basic programming skills in any language and who are keen on exploring deep learning for a career move or an enterprise project.

Business Applications For AI - Elodia Gutierrez 2021-03-19 Discussion of artificial intelligence (AI) elicits a wide range of feelings. On one end of the spectrum is fear of job loss spurred by a bot revolution. On the opposite is excitement about the overblown prospects of what people can achieve with machine augmentation. Rather than thinking about what could be, The author says

businesses looking to adopt AI should look at what already exists. This book is designed to teach you the absolute basics of artificial intelligence (AI) and how it is used today. It has been written assuming that the reader has zero experience in the field of AI, computer science, or math. As such, many of the concepts are easy to follow and understand. When we say artificial intelligence, we generally mean one of two things. The first is narrow or specific AI that allows a computer to solve complex problems well but not much of anything else. The other is the type of intelligence that would allow a computer to think as we do. Artificial General Intelligence (AGI) is what researchers consider the "holy grail" of AI research. A machine that has artificial general intelligence can think on levels comparable to a human. The field of general AI remains an academic pursuit with little to no business applications whatsoever. So far, nobody has figured out how to bring about general intelligence in

computers. Researchers who work in this space are less concerned with teaching computers how to drive cars and more interested in studying the nature of intelligence. Many of them study the development of intelligence in human beings from the gestation period to childhood and beyond.

Python: Advanced Guide to Artificial Intelligence -

Giuseppe Bonaccorso

2018-12-21

Demystify the complexity of machine learning techniques and create evolving, clever solutions to solve your problems

Key Features

- Master supervised, unsupervised, and semi-supervised ML algorithms and their implementation
- Build deep learning models for object detection, image classification, similarity learning, and more
- Build, deploy, and scale end-to-end deep neural network models in a production environment

Book Description

This Learning Path is your complete guide to quickly getting to grips with popular machine learning algorithms. You'll be introduced to the most

widely used algorithms in supervised, unsupervised, and semi-supervised machine learning, and learn how to use them in the best possible manner. Ranging from Bayesian models to the MCMC algorithm to Hidden Markov models, this Learning Path will teach you how to extract features from your dataset and perform dimensionality reduction by making use of Python-based libraries. You'll bring the use of TensorFlow and Keras to build deep learning models, using concepts such as transfer learning, generative adversarial networks, and deep reinforcement learning. Next, you'll learn the advanced features of TensorFlow 1.x, such as distributed TensorFlow with TF clusters, deploy production models with TensorFlow Serving. You'll implement different techniques related to object classification, object detection, image segmentation, and more. By the end of this Learning Path, you'll have obtained in-depth knowledge of TensorFlow, making you the go-to person for solving artificial

intelligence problems This Learning Path includes content from the following Packt products: Mastering Machine Learning Algorithms by Giuseppe Bonaccorso Mastering TensorFlow 1.x by Armando Fandango Deep Learning for Computer Vision by Rajalingappaa Shanmugamani What you will learn Explore how an ML model can be trained, optimized, and evaluated Work with Autoencoders and Generative Adversarial Networks Explore the most important Reinforcement Learning techniques Build end-to-end deep learning (CNN, RNN, and Autoencoders) models Who this book is for This Learning Path is for data scientists, machine learning engineers, artificial intelligence engineers who want to delve into complex machine learning algorithms, calibrate models, and improve the predictions of the trained model. You will encounter the advanced intricacies and complex use cases of deep learning and AI. A basic knowledge of programming in

Python and some understanding of machine learning concepts are required to get the best out of this Learning Path.

Machine Learning with Python Cookbook - Chris Albon 2018-03-09

This practical guide provides nearly 200 self-contained recipes to help you solve machine learning challenges you may encounter in your daily work. If you're comfortable with Python and its libraries, including pandas and scikit-learn, you'll be able to address specific problems such as loading data, handling text or numerical data, model selection, and dimensionality reduction and many other topics. Each recipe includes code that you can copy and paste into a toy dataset to ensure that it actually works. From there, you can insert, combine, or adapt the code to help construct your application. Recipes also include a discussion that explains the solution and provides meaningful context. This cookbook takes you beyond

theory and concepts by providing the nuts and bolts you need to construct working machine learning applications. You'll find recipes for: Vectors, matrices, and arrays Handling numerical and categorical data, text, images, and dates and times Dimensionality reduction using feature extraction or feature selection Model evaluation and selection Linear and logical regression, trees and forests, and k-nearest neighbors Support vector machines (SVM), naïve Bayes, clustering, and neural networks Saving and loading trained models

Artificial Intelligence with

Python - Prateek Joshi

2017-01-27

Build real-world Artificial Intelligence applications with Python to intelligently interact with the world around you About This Book Step into the amazing world of intelligent apps using this comprehensive guide Enter the world of Artificial Intelligence, explore it, and create your own applications Work through simple yet insightful examples

that will get you up and running with Artificial Intelligence in no time Who This Book Is For This book is for Python developers who want to build real-world Artificial Intelligence applications. This book is friendly to Python beginners, but being familiar with Python would be useful to play around with the code. It will also be useful for experienced Python programmers who are looking to use Artificial Intelligence techniques in their existing technology stacks. What You Will Learn Realize different classification and regression techniques Understand the concept of clustering and how to use it to automatically segment data See how to build an intelligent recommender system Understand logic programming and how to use it Build automatic speech recognition systems Understand the basics of heuristic search and genetic programming Develop games using Artificial Intelligence Learn how reinforcement learning works Discover how to build intelligent applications

centered on images, text, and time series data See how to use deep learning algorithms and build applications based on it In Detail Artificial Intelligence is becoming increasingly relevant in the modern world where everything is driven by technology and data. It is used extensively across many fields such as search engines, image recognition, robotics, finance, and so on. We will explore various real-world scenarios in this book and you'll learn about various algorithms that can be used to build Artificial Intelligence applications. During the course of this book, you will find out how to make informed decisions about what algorithms to use in a given context. Starting from the basics of Artificial Intelligence, you will learn how to develop various building blocks using different data mining techniques. You will see how to implement different algorithms to get the best possible results, and will understand how to apply them to real-world scenarios. If you want to add an intelligence layer to any

application that's based on images, text, stock market, or some other form of data, this exciting book on Artificial Intelligence will definitely be your guide! Style and approach This highly practical book will show you how to implement Artificial Intelligence. The book provides multiple examples enabling you to create smart applications to meet the needs of your organization. In every chapter, we explain an algorithm, implement it, and then build a smart application. [Hands-On Unsupervised Learning with Python](#) - Giuseppe Bonaccorso 2019-02-28 Discover the skill-sets required to implement various approaches to Machine Learning with Python Key FeaturesExplore unsupervised learning with clustering, autoencoders, restricted Boltzmann machines, and moreBuild your own neural network models using modern Python librariesPractical examples show you how to implement different machine learning and deep learning

techniques

Book Description

Unsupervised learning is about making use of raw, untagged data and applying learning algorithms to it to help a machine predict its outcome. With this book, you will explore the concept of unsupervised learning to cluster large sets of data and analyze them repeatedly until the desired outcome is found using Python. This book starts with the key differences between supervised, unsupervised, and semi-supervised learning. You will be introduced to the best-used libraries and frameworks from the Python ecosystem and address unsupervised learning in both the machine learning and deep learning domains. You will explore various algorithms, techniques that are used to implement unsupervised learning in real-world use cases. You will learn a variety of unsupervised learning approaches, including randomized optimization, clustering, feature selection and transformation, and information theory. You will get hands-on experience with how

neural networks can be employed in unsupervised scenarios. You will also explore the steps involved in building and training a GAN in order to process images. By the end of this book, you will have learned the art of unsupervised learning for different real-world challenges. What you will learn

- Use cluster algorithms to identify and optimize natural groups of data
- Explore advanced non-linear and hierarchical clustering in action
- Soft label assignments for fuzzy c-means and Gaussian mixture models
- Detect anomalies through density estimation
- Perform principal component analysis using neural network models
- Create unsupervised models using GANs

Who this book is for This book is intended for statisticians, data scientists, machine learning developers, and deep learning practitioners who want to build smart applications by implementing key building block unsupervised learning, and master all the new techniques and algorithms offered in machine learning and

deep learning using real-world examples. Some prior knowledge of machine learning concepts and statistics is desirable.

Deep Learning for Business with Python - N. Lewis

2016-10-27

Leverage Deep Learning for Business Analysis - with Python!

Deep Learning for Business With Python takes you on a gentle, fun and unhurried journey to building your own deep neural network models for business use in Python. It demystifies deep learning by taking a how-to approach through a series of business case studies. Using plain language, it offers a simple, intuitive, practical, non-mathematical, easy to follow guide to the most successful ideas, outstanding techniques and usable solutions available using Python. QUICK AND EASY: Deep Learning for Business With Python offers the ideal introduction to deep learning for business analysis. It is designed to be accessible. It will teach you, in simple and easy-to-understand terms, how

to take advantage of deep learning to enhance business outcomes using Python. NO EXPERIENCE?: I'm assuming you never did like linear algebra, don't want to see things derived, dislike complicated computer code, and you're here because you want to see how to use deep neural networks for business problems explained in plain language, and try them out for yourself. THIS BOOK IS FOR YOU IF YOU WANT: Explanations rather than mathematical derivation Real world applications that make sense. Illustrations to deepen your understanding. Worked examples you can easily follow and immediately implement. Ideas you can actually use and try on your own data. TAKE THE SHORTCUT: Through a simple to follow process you will learn how to build deep neural network models for business problems using Python. Once you have mastered the process, it will be easy for you to translate your knowledge into your own powerful business applications. Each chapter

covers, step by step, a different aspect of deep neural networks. You get your hands dirty as you work through some challenging real world business issues.

YOU'LL LEARN HOW TO:

Unleash the power of Deep Neural Networks for classifying Insurance Claims. Develop hands on solutions to predict product yield. Design successful applications for modeling customer churn. Master techniques for efficient classification in peer to peer marketplaces. Deploy deep neural networks to predict crash injury severity. Adopt winning solutions to forecast property value. Everything you need to get started is contained within this book. Deep Learning for Business with Python is your very own hands on practical, tactical, easy to follow guide to mastery. Buy this book today, your next big breakthrough using deep neural networks is only a page away!

Python Deep Learning - Ivan Vasilev 2019-01-16

Learn advanced state-of-the-art deep learning techniques and their applications using popular

Python libraries
Key Features
Build a strong foundation in neural networks and deep learning with Python libraries
Explore advanced deep learning techniques and their applications across computer vision and NLP
Learn how a computer can navigate in complex environments with reinforcement learning
Book Description
With the surge in artificial intelligence in applications catering to both business and consumer needs, deep learning is more important than ever for meeting current and future market demands. With this book, you'll explore deep learning, and learn how to put machine learning to use in your projects. This second edition of Python Deep Learning will get you up to speed with deep learning, deep neural networks, and how to train them with high-performance algorithms and popular Python frameworks. You'll uncover different neural network architectures, such as convolutional networks, recurrent neural networks, long

short-term memory (LSTM) networks, and capsule networks. You'll also learn how to solve problems in the fields of computer vision, natural language processing (NLP), and speech recognition. You'll study generative model approaches such as variational autoencoders and Generative Adversarial Networks (GANs) to generate images. As you delve into newly evolved areas of reinforcement learning, you'll gain an understanding of state-of-the-art algorithms that are the main components behind popular games Go, Atari, and Dota. By the end of the book, you will be well-versed with the theory of deep learning along with its real-world applications. What you will learn Grasp the mathematical theory behind neural networks and deep learning processes Investigate and resolve computer vision challenges using convolutional networks and capsule networks Solve generative tasks using variational autoencoders and Generative Adversarial Networks Implement complex NLP tasks using recurrent

networks (LSTM and GRU) and attention models Explore reinforcement learning and understand how agents behave in a complex environment Get up to date with applications of deep learning in autonomous vehicles Who this book is for This book is for data science practitioners, machine learning engineers, and those interested in deep learning who have a basic foundation in machine learning and some Python programming experience. A background in mathematics and conceptual understanding of calculus and statistics will help you gain maximum benefit from this book.

[Python Machine Learning Cookbook](#) - Giuseppe Ciaburro
2019-03-30

Discover powerful ways to effectively solve real-world machine learning problems using key libraries including scikit-learn, TensorFlow, and PyTorch Key Features Learn and implement machine learning algorithms in a variety of real-life scenarios Cover a range of tasks catering to supervised, unsupervised and

reinforcement learning techniques Find easy-to-follow code solutions for tackling common and not-so-common challenges

Book Description

This eagerly anticipated second edition of the popular Python Machine Learning Cookbook will enable you to adopt a fresh approach to dealing with real-world machine learning and deep learning tasks. With the help of over 100 recipes, you will learn to build powerful machine learning applications using modern libraries from the Python ecosystem. The book will also guide you on how to implement various machine learning algorithms for classification, clustering, and recommendation engines, using a recipe-based approach. With emphasis on practical solutions, dedicated sections in the book will help you to apply supervised and unsupervised learning techniques to real-world problems. Toward the concluding chapters, you will get to grips with recipes that teach you advanced techniques including reinforcement learning, deep neural networks,

and automated machine learning. By the end of this book, you will be equipped with the skills you need to apply machine learning techniques and leverage the full capabilities of the Python ecosystem through real-world examples. What you will learn

- Use predictive modeling and apply it to real-world problems
- Explore data visualization techniques to interact with your data
- Learn how to build a recommendation engine
- Understand how to interact with text data and build models to analyze it
- Work with speech data and recognize spoken words using Hidden Markov Models
- Get well versed with reinforcement learning, automated ML, and transfer learning
- Work with image data and build systems for image recognition and biometric face recognition
- Use deep neural networks to build an optical character recognition system

Who this book is for This book is for data scientists, machine learning developers, deep learning enthusiasts and Python programmers who want

to solve real-world challenges using machine-learning techniques and algorithms. If you are facing challenges at work and want ready-to-use code solutions to cover key

tasks in machine learning and the deep learning domain, then this book is what you need. Familiarity with Python programming and machine learning concepts will be useful.