

Python Machine Learning

Python Machine Learning

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.

Python Machine Learning

Applied machine learning with a solid foundation in theory. Revised and expanded for TensorFlow 2, GANs, and reinforcement learning. Purchase of the print or Kindle book includes a free eBook in the PDF format. Key Features Third edition of the bestselling, widely acclaimed Python machine learning book Clear and intuitive explanations take you deep into the theory and practice of Python machine learning Fully updated and expanded to cover TensorFlow 2, Generative Adversarial Network models, reinforcement learning, and best practices Book Description Python Machine Learning, Third Edition is a comprehensive guide to machine learning and deep learning with Python. It acts as both a step-by-step tutorial, and a reference you'll keep coming back to as you build your machine learning systems. Packed with clear explanations, visualizations, and working examples, the book covers all the essential machine learning techniques in depth. While some books teach you only to follow instructions, with this machine learning book, Raschka and Mirjalili teach the principles behind machine learning, allowing you to build models and applications for yourself. Updated for TensorFlow 2.0, this new third edition introduces readers to its new Keras API features, as well as the latest additions to scikit-learn. It's also expanded to cover cutting-edge reinforcement learning techniques based on deep learning, as well as an introduction to GANs. Finally, this book also explores a subfield of natural language processing (NLP) called sentiment analysis, helping you learn how to use machine learning algorithms to classify documents. This book is your companion to machine learning with Python, whether you're a Python developer new to machine learning or want to deepen your knowledge of the latest developments. What you will learn Master the frameworks, models, and techniques that enable machines to 'learn' from data Use scikit-learn for machine learning and TensorFlow for deep learning Apply machine learning to image classification, sentiment analysis, intelligent web applications, and more Build and train neural networks, GANs, and other models Discover best practices for evaluating and tuning models Predict continuous target outcomes using regression analysis Dig deeper into textual and social media data using sentiment analysis Who this book is for If you know some Python and you want to use machine learning and deep learning, pick up this book. Whether you want to start from scratch or extend your machine learning knowledge, this is an essential resource. Written for developers and data scientists who want to create practical machine learning and deep learning code, this book is ideal for anyone who wants to teach computers how to learn from data.

Practical Machine Learning with Python

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

Python Machine Learning

Python makes machine learning easy for beginners and experienced developers With computing power increasing exponentially and costs decreasing at the same time, there is no better time to learn machine learning using Python. Machine learning tasks that once required enormous processing power are now possible on desktop machines. However, machine learning is not for the faint of heart—it requires a good foundation in statistics, as well as programming knowledge. Python Machine Learning will help coders of all levels master one of the most in-demand programming skillsets in use today. Readers will get started by following fundamental topics such as an introduction to Machine Learning and Data Science. For each learning algorithm, readers will use a real-life scenario to show how Python is used to solve the problem at hand. • Python data science—manipulating data and data visualization • Data cleansing • Understanding Machine learning algorithms • Supervised learning algorithms • Unsupervised learning algorithms • Deploying machine learning models Python Machine Learning is essential reading for students, developers, or anyone with a keen interest in taking their coding skills to the next level.

Python Machine Learning

★☆☆Have you come across the terms machine learning and neural networks in most articles you have recently read? Do you also want to learn how to build a machine learning model that will answer your questions within a blink of your eyes?☆☆ If you responded yes to any of the above questions, you have come to the right place. Machine learning is an incredibly dense topic. It's hard to imagine condensing it into an easily readable and digestible format. However, this book aims to do exactly that. Machine learning and artificial intelligence have been used in different machines and applications to improve the user's experience. One can also use machine learning to make data analysis and predicting the output for some data sets easy. All you need to do is choose the right algorithm, train the model and test the model before you apply it on any real-world tool. It is that simple isn't it? ★★Apart from this, you will also learn more about★★ ♦ The Different Types Of Learning Algorithm That You Can Expect To Encounter ♦ The Numerous Applications Of Machine Learning And Deep Learning ♦ The Best Practices For Picking Up Neural Networks ♦ What Are The Best Languages And Libraries To Work With ♦ The Various Problems That You Can Solve With Machine Learning Algorithms ♦ And much more... Well, you can do it faster if you use Python. This language has made it easy for any user, even an amateur, to build a strong machine learning model since it has numerous directories and libraries that make it easy for one to build a model. Do you want to know how to build a machine learning model and a neural network? So, what are you waiting for? Grab a copy of this book now!

Introduction to Machine Learning with Python

Many Python developers are curious about what machine learning is and how it can be concretely applied to solve issues faced in businesses handling medium to large amount of data. Machine Learning with Python teaches you the basics of machine learning and provides a thorough hands-on understanding of the subject.You'll learn important machine learning concepts and algorithms, when to use them, and how to use them. The book will cover a machine learning workflow: data preprocessing and working with data, training algorithms, evaluating results, and implementing those algorithms into a production-level system.

Python Machine Learning

Ready to discover the Machine Learning world? Machine learning paves the path into the future and it's powered by Python. All industries can benefit from machine learning and artificial intelligence whether we're talking about private businesses, healthcare, infrastructure, banking, or social media. What exactly does it do for us and what does a machine learning specialist do? Machine learning professionals create and implement special algorithms that can learn from existing data to make an accurate prediction on new never before seen data. Python Machine Learning presents you a step-by-step guide on how to create machine learning models that lead to valuable results. The book focuses on machine learning theory as much as practical examples. You will learn how to analyse data, use visualization methods, implement regression and classification models, and how to harness the power of neural networks. By purchasing this book, your machine learning journey becomes a lot easier. While a minimal level of Python programming is recommended, the algorithms and techniques are explained in such a way that you don't need to be intimidated by mathematics. The Topics Covered Include: Machine learning fundamentals How to set up the development environment How to use Python libraries and modules like Scikit-learn, TensorFlow, Matplotlib, and NumPy How to explore data How to solve regression and classification problems Decision trees k-means clustering Feed-forward and recurrent neural networks Get your copy now

Artificial Intelligence with Python

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.

Python Machine Learning by Example

Grasp machine learning concepts, techniques, and algorithms with the help of real-world examples using Python libraries such as TensorFlow and scikit-learn Key Features Exploit the power of Python to explore the world of data mining and data analytics Discover machine learning algorithms to solve complex challenges faced by data scientists today Use Python libraries such as TensorFlow and Keras to create smart cognitive actions for your projects Book Description The surge in interest in machine learning (ML) is due to the fact that it revolutionizes automation by learning patterns in data and using them to make predictions and decisions. If you're interested in ML, this book will serve as your entry point to ML. Python Machine Learning By Example begins with an introduction to important ML concepts and implementations using Python libraries. Each chapter of the book walks you through an industry adopted application. You'll implement ML techniques in areas such as exploratory data analysis, feature engineering, and natural language processing (NLP) in a clear and easy-to-follow way. With the help of this extended and updated edition, you'll understand how to tackle data-driven problems and implement your solutions with the powerful yet simple Python language and popular Python packages and tools such as TensorFlow, scikit-learn, gensim, and Keras. To aid your understanding of popular ML algorithms, the book covers interesting and easy-to-follow examples such as news topic modeling and classification, spam email detection, stock price forecasting, and more. By the end of the book, you'll have put together a broad picture of the ML ecosystem and will be well-versed with the best practices of applying ML techniques to make the most out of new opportunities. What you will learn Understand the important concepts in machine learning and data science Use Python to explore the world of data mining and analytics Scale up model training using varied data complexities with Apache Spark Delve deep into text and NLP using Python libraries such as NLTK and gensim Select and build an ML model and evaluate and optimize its performance Implement ML algorithms from scratch in Python, TensorFlow, and scikit-learn Who this book is for If you're a machine learning aspirant, data analyst, or data engineer highly passionate about machine learning and want to begin working on ML assignments, this book is for you. Prior knowledge of Python coding is assumed and basic familiarity with statistical concepts will be beneficial although not necessary.

Machine Learning with Pytorch and Scikit-Learn

PyTorch book of the bestselling and widely acclaimed Python Machine Learning series expanded to include transformers, XGBoost, and graph neural networks Key Features: Learn applied machine learning with a solid foundation in theory Clear, intuitive explanations take you deep into the theory and practice of Python machine learning Fully updated and expanded to cover PyTorch, transformers, XGBoost, graph neural networks, and best practices Book Description: Machine Learning with PyTorch and Scikit-Learn is a comprehensive guide to machine learning and deep learning with PyTorch. It acts as both a step-by-step tutorial, and a reference you'll keep coming back to as you build your machine learning systems. Packed with clear explanations, visualizations, and examples, this book covers all the essential machine learning techniques in depth. While some books teach you only to follow instructions, with this machine learning book, we teach you the principles to build models and applications for yourself. Updated to cover deep learning using PyTorch, this book also introduces readers to the latest additions to scikit-learn. Moreover, this book covers various machine learning and deep learning techniques for text and image classification. You will also learn about generative adversarial networks (GANs) for generating new data and training intelligent agents with reinforcement learning. Finally, this new edition is also expanded to cover the latest trends in deep learning, including introductions to graph neural networks and large-scale transformers used for natural language processing (NLP). This PyTorch book is your companion to machine learning with Python, whether you're a Python developer new to machine learning or want to deepen your knowledge of the latest developments. What You Will Learn: Explore frameworks, models, and techniques for machines to 'learn' from data Use scikit-learn for machine learning and PyTorch for deep learning Train machine learning classifiers on images, text, and more Build and train neural networks, transformers, and graph neural networks Discover best practices for evaluating and tuning models Predict continuous target outcomes using regression analysis Dig deeper into textual and social media data using sentiment analysis Who this book is for: If you know some Python and you want to use machine learning and deep learning, pick up this book. Whether you want to start from scratch or extend your machine learning knowledge, this is an essential resource. Written for developers and data scientists who want to create practical machine learning with Python and PyTorch deep learning code. This Python book is ideal for anyone who wants to teach

computers how to learn from data. Working knowledge of the Python programming language, along with a good understanding of calculus and linear algebra is a must.

Python Machine Learning By Example

A comprehensive guide to get you up to speed with the latest developments of practical machine learning with Python and upgrade your understanding of machine learning (ML) algorithms and techniques

Key Features

- Dive into machine learning algorithms to solve the complex challenges faced by data scientists today
- Explore cutting edge content reflecting deep learning and reinforcement learning developments
- Use updated Python libraries such as TensorFlow, PyTorch, and scikit-learn to track machine learning projects end-to-end

Book Description

Python Machine Learning By Example, Third Edition serves as a comprehensive gateway into the world of machine learning (ML). With six new chapters, on topics including movie recommendation engine development with Naïve Bayes, recognizing faces with support vector machine, predicting stock prices with artificial neural networks, categorizing images of clothing with convolutional neural networks, predicting with sequences using recurring neural networks, and leveraging reinforcement learning for making decisions, the book has been considerably updated for the latest enterprise requirements. At the same time, this book provides actionable insights on the key fundamentals of ML with Python programming. Hayden applies his expertise to demonstrate implementations of algorithms in Python, both from scratch and with libraries. Each chapter walks through an industry-adopted application. With the help of realistic examples, you will gain an understanding of the mechanics of ML techniques in areas such as exploratory data analysis, feature engineering, classification, regression, clustering, and NLP. By the end of this ML Python book, you will have gained a broad picture of the ML ecosystem and will be well-versed in the best practices of applying ML techniques to solve problems. What you will learn

Understand the important concepts in ML and data science

- Use Python to explore the world of data mining and analytics
- Scale up model training using varied data complexities with Apache Spark
- Delve deep into text analysis and NLP using Python libraries such as NLTK and Gensim

Select and build an ML model and evaluate and optimize its performance

Implement ML algorithms from scratch in Python, TensorFlow 2, PyTorch, and scikit-learn

Who this book is for

If you're a machine learning enthusiast, data analyst, or data engineer highly passionate about machine learning and want to begin working on machine learning assignments, this book is for you. Prior knowledge of Python coding is assumed and basic familiarity with statistical concepts will be beneficial, although this is not necessary.

Hands-On Deep Learning Architectures with Python

Concepts, tools, and techniques to explore deep learning architectures and methodologies

Key Features

- Explore advanced deep learning architectures using various datasets and frameworks
- Implement deep architectures for neural network models such as CNN, RNN, GAN, and many more
- Discover design patterns and different challenges for various deep learning architectures

Book Description

Deep learning architectures are composed of multilevel nonlinear operations that represent high-level abstractions; this allows you to learn useful feature representations from the data. This book will help you learn and implement deep learning architectures to resolve various deep learning research problems. Hands-On Deep Learning Architectures with Python explains the essential learning algorithms used for deep and shallow architectures. Packed with practical implementations and ideas to help you build efficient artificial intelligence systems (AI), this book will help you learn how neural networks play a major role in building deep architectures. You will understand various deep learning architectures (such as AlexNet, VGG Net, GoogleNet) with easy-to-follow code and diagrams. In addition to this, the book will also guide you in building and training various deep architectures such as the Boltzmann mechanism, autoencoders, convolutional neural networks (CNNs), recurrent neural networks (RNNs), natural language processing (NLP), GAN, and more—all with practical implementations. By the end of this book, you will be able to construct deep models using popular frameworks and datasets with the required design patterns for each architecture. You will be ready to explore the potential of deep architectures in today's world. What you will learn

Implement CNNs, RNNs, and other commonly used architectures with Python

Explore architectures such as VGGNet, AlexNet, and GoogLeNet

Build deep learning architectures for AI applications such as face and image recognition, fraud detection, and many more

Understand the architectures and applications of Boltzmann machines and autoencoders with concrete examples

Master artificial intelligence and neural network concepts and apply them to your architecture

Understand deep learning architectures for mobile and embedded systems

Who this book is for

If you're a data scientist, machine learning developer/engineer, or deep learning practitioner, or are curious about AI and want to upgrade your knowledge of various deep learning architectures, this book will appeal to you. You are expected to have some knowledge of statistics and machine learning algorithms to get the best out of this book

Python Machine Learning For Beginners

Imagine a world where you can make a computer program learn for itself? What if it could recognize who is in a picture or the exact websites that you want to look for when you type it into the program? What if you were able to create any kind of program that you wanted, even as a beginner programmer, without all of the convoluted codes and other information that makes your head spin? This is actually all possible. The programs that were mentioned before are all a part of machine learning. This is a breakthrough in the world of information technology, which allows the computer to learn how to behave, rather than asking the programmer to think of every single instance that may show up with their user ahead of time. It is taking over the world, and you may be using it now, without even realizing it. If you have used a search engine, worked with photo recognition, or done speech recognition devices on your phone, then you have worked with machine learning. And if you combine it with the Python programming language, it is faster, more powerful, and easier (even for beginners) to create your own programs today. Python is considered the ultimate coding language for beginners, but once you start to use it, you will never be able to tell. Many of the best programs out there use this language behind them, and if you are a beginner who is ready to learn, this is a great place to start. If you have a program in mind, or you just want to be able to get some programming knowledge and learn more about the power that comes behind it, then this is the guidebook for you. ★★

Some of the topics that we will discuss include★★

- ◆ The Fundamentals of Machine Learning, Deep learning, And Neural Networks
- ◆ How To Set Up Your Environment And Make Sure That Python, TensorFlow And Scikit-Learn Work Well For You
- ◆ How To Master Neural Network Implementation Using Different Libraries
- ◆ How Random Forest Algorithms Are Able To Help Out With Machine Learning
- ◆ How To Uncover Hidden Patterns And Structures With Clustering

◆ How Recurrent Neural Networks Work And When To Use ◆ The Importance Of Linear Classifiers And Why They Need To Be Used In Machine Learning ◆ And Much More! This guidebook is going to provide you with the information you need to get started with Python Machine Learning. If you have an idea for a great program, but you don't have the technical knowledge to make it happen, then this guidebook will help you get started. Machine learning has the capabilities, and Python has the ease, to help you, even as a beginner, create any product that you would like. If you want to learn more about how to make the best programs with Python Machine learning, buy the book today!

Python Machine Learning

Are you a novice programmer who wants to learn Python Machine Learning? Are you worried about how to translate what you already know into Python? This book will help you overcome those problems. As machines get ever more complex and perform more and more tasks to free up our time, so it is that new ideas are developed to help us continually improve their speed and abilities. One of these is Python and in Python Machine Learning: The Ultimate Beginner's Guide to Learn Python Machine Learning Step by Step using Scikit-Learn and Tensorflow, you will discover information and advice on: • What machine learning is • The history of machine learning • Approaches to machine learning • Support vector machines • Machine learning and neural networks • The Internet of Things (IoT) • The future of machine learning • And more... This book has been written specifically for beginners and the simple, step by step instructions and plain language make it an ideal place to start for anyone who has a passing interest in this fascinating subject. Python really is an amazing system and can provide you with endless possibilities when you start learning about it. Get a copy of Python Machine Learning today and see where the future lies!

Python Machine Learning from Scratch

BUY NOW (Will soon return to 20.59) **Free eBook for customers who purchase the print book from Amazon*** Are you thinking of learning more about Machine Learning using Python? This book would seek to explain common terms and algorithms in an intuitive way. The author used a progressive approach whereby we start out slowly and improve on the complexity of our solutions. 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. Instead of tough math formulas, this book contains several graphs and images which detail all important Machine Learning concepts and their applications. Target Users The book designed for a variety of target audiences. The most suitable users would include: 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 machine learning who desire a bird's eye view of current techniques and approaches. What's Inside This Book? Supervised Learning Algorithms Unsupervised Learning Algorithms Semi-supervised Learning Algorithms Reinforcement Learning Algorithms Overfitting and underfitting correctness The Bias-Variance Trade-off Feature Extraction and Selection A Regression Example: Predicting Boston Housing Prices Import Libraries: How to forecast and Predict Popular Classification Algorithms Introduction to K Nearest Neighbors Introduction to Support Vector Machine Example of Clustering Running K-means with Scikit-Learn Introduction to Deep Learning using TensorFlow Deep Learning Compared to Other Machine Learning Approaches Applications of Deep Learning How to run the Neural Network using TensorFlow Cases of Study with Real Data Sources & References Frequently Asked Questions Q: Is this book for me and do I need programming experience? A: If you want to smash Machine Learning from scratch, this book is for you. If you already wrote a few lines of code and recognize basic programming statements, you'll be OK. Q: Does this book include everything I need to become a Machine Learning expert? A: Unfortunately, no. This book is designed for readers taking their first steps in Machine Learning and further learning will be required beyond this book to master all aspects of Machine Learning. Q: Can I have a refund if this book is not fitted 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 at contact@aisciences.net. If you need to see the quality of our job, AI Sciences Company offering you a free eBook in Machine Learning with Python written by the data scientist Alain Kaufmann at <http://aisciences.net/free-books/>

Large Scale Machine Learning with Python

Learn to build powerful machine learning models quickly and deploy large-scale predictive applications About This Book Design, engineer and deploy scalable machine learning solutions with the power of Python Take command of Hadoop and Spark with Python for effective machine learning on a map reduce framework Build state-of-the-art models and develop personalized recommendations to perform machine learning at scale Who This Book Is For This book is for anyone who intends to work with large and complex data sets. Familiarity with basic Python and machine learning concepts is recommended. Working knowledge in statistics and computational mathematics would also be helpful. What You Will Learn Apply the most scalable machine learning algorithms Work with modern state-of-the-art large-scale machine learning techniques Increase predictive accuracy with deep learning and scalable data-handling techniques Improve your work by combining the MapReduce framework with Spark Build powerful ensembles at scale Use data streams to train linear and non-linear predictive models from extremely large datasets using a single machine In Detail Large Python machine learning projects involve new problems associated with specialized machine learning architectures and designs that many data scientists have yet to tackle. But finding algorithms and designing and building platforms that deal with large sets of data is a growing need. Data scientists have to manage and maintain increasingly complex data projects, and with the rise of big data comes an increasing demand for computational and algorithmic efficiency. Large Scale Machine Learning with Python uncovers a new wave of machine learning algorithms that meet scalability demands together with a high predictive accuracy. Dive into scalable machine learning and the three forms of scalability. Speed up algorithms that can be used on a desktop computer with tips on parallelization and memory allocation. Get to grips with new algorithms that are specifically designed for large projects and can handle bigger files, and learn about machine learning in big data environments. We will also

cover the most effective machine learning techniques on a map reduce framework in Hadoop and Spark in Python. Style and Approach This efficient and practical title is stuffed full of the techniques, tips and tools you need to ensure your large scale Python machine learning runs swiftly and seamlessly. Large-scale machine learning tackles a different issue to what is currently on the market. Those working with Hadoop clusters and in data intensive environments can now learn effective ways of building powerful machine learning models from prototype to production. This book is written in a style that programmers from other languages (R, Julia, Java, Matlab) can follow.

Deep Learning with Python

Summary Deep Learning with Python introduces the field of deep learning using the Python language and the powerful Keras library. Written by Keras creator and Google AI researcher François Chollet, this book builds your understanding through intuitive explanations and practical examples. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Machine learning has made remarkable progress in recent years. We went from near-unusable speech and image recognition, to near-human accuracy. We went from machines that couldn't beat a serious Go player, to defeating a world champion. Behind this progress is deep learning—a combination of engineering advances, best practices, and theory that enables a wealth of previously impossible smart applications. About the Book Deep Learning with Python introduces the field of deep learning using the Python language and the powerful Keras library. Written by Keras creator and Google AI researcher François Chollet, this book builds your understanding through intuitive explanations and practical examples. You'll explore challenging concepts and practice with applications in computer vision, natural-language processing, and generative models. By the time you finish, you'll have the knowledge and hands-on skills to apply deep learning in your own projects. What's Inside Deep learning from first principles Setting up your own deep-learning environment Image-classification models Deep learning for text and sequences Neural style transfer, text generation, and image generation About the Reader Readers need intermediate Python skills. No previous experience with Keras, TensorFlow, or machine learning is required. About the Author François Chollet works on deep learning at Google in Mountain View, CA. He is the creator of the Keras deep-learning library, as well as a contributor to the TensorFlow machine-learning framework. He also does deep-learning research, with a focus on computer vision and the application of machine learning to formal reasoning. His papers have been published at major conferences in the field, including the Conference on Computer Vision and Pattern Recognition (CVPR), the Conference and Workshop on Neural Information Processing Systems (NIPS), the International Conference on Learning Representations (ICLR), and others. Table of Contents PART 1 - FUNDAMENTALS OF DEEP LEARNING What is deep learning? Before we begin: the mathematical building blocks of neural networks Getting started with neural networks Fundamentals of machine learning PART 2 - DEEP LEARNING IN PRACTICE Deep learning for computer vision Deep learning for text and sequences Advanced deep-learning best practices Generative deep learning Conclusions appendix A - Installing Keras and its dependencies on Ubuntu appendix B - Running Jupyter notebooks on an EC2 GPU instance

Machine Learning with Python Cookbook

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

Introduction to Machine Learning with Python

Machine learning has become an integral part of many commercial applications and research projects, but this field is not exclusive to large companies with extensive research teams. If you use Python, even as a beginner, this book will teach you practical ways to build your own machine learning solutions. With all the data available today, machine learning applications are limited only by your imagination. You'll learn the steps necessary to create a successful machine-learning application with Python and the scikit-learn library. Authors Andreas Müller and Sarah Guido focus on the practical aspects of using machine learning algorithms, rather than the math behind them. Familiarity with the NumPy and matplotlib libraries will help you get even more from this book. With this book, you'll learn: Fundamental concepts and applications of machine learning Advantages and shortcomings of widely used machine learning algorithms How to represent data processed by machine learning, including which data aspects to focus on Advanced methods for model evaluation and parameter tuning The concept of pipelines for chaining models and encapsulating your workflow Methods for working with text data, including text-specific processing techniques Suggestions for improving your machine learning and data science skills

Python: Real World Machine Learning

Learn to solve challenging data science problems by building powerful machine learning models using Python About This Book Understand which algorithms to use in a given context with the help of this exciting recipe-based guide This practical tutorial tackles real-world computing problems through a rigorous and effective approach Build state-of-the-art models and develop personalized recommendations to perform machine learning at scale Who This Book Is For This Learning Path is for Python programmers who are looking to use machine learning algorithms to create real-world applications. It is ideal for Python professionals who want to work with large and complex datasets

and Python developers and analysts or data scientists who are looking to add to their existing skills by accessing some of the most powerful recent trends in data science. Experience with Python, Jupyter Notebooks, and command-line execution together with a good level of mathematical knowledge to understand the concepts is expected. Machine learning basic knowledge is also expected. What You Will Learn Use predictive modeling and apply it to real-world problems Understand how to perform market segmentation using unsupervised learning Apply your new-found skills to solve real problems, through clearly-explained code for every technique and test Compete with top data scientists by gaining a practical and theoretical understanding of cutting-edge deep learning algorithms Increase predictive accuracy with deep learning and scalable data-handling techniques Work with modern state-of-the-art large-scale machine learning techniques Learn to use Python code to implement a range of machine learning algorithms and techniques In Detail Machine learning is increasingly spreading in the modern data-driven world. It is used extensively across many fields such as search engines, robotics, self-driving cars, and more. Machine learning is transforming the way we understand and interact with the world around us. In the first module, Python Machine Learning Cookbook, you will learn how to perform various machine learning tasks using a wide variety of machine learning algorithms to solve real-world problems and use Python to implement these algorithms. The second module, Advanced Machine Learning with Python, is designed to take you on a guided tour of the most relevant and powerful machine learning techniques and you'll acquire a broad set of powerful skills in the area of feature selection and feature engineering. The third module in this learning path, Large Scale Machine Learning with Python, dives into scalable machine learning and the three forms of scalability. It covers the most effective machine learning techniques on a map reduce framework in Hadoop and Spark in Python. This Learning Path will teach you Python machine learning for the real world. The machine learning techniques covered in this Learning Path are at the forefront of commercial practice. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Python Machine Learning Cookbook by Prateek Joshi Advanced Machine Learning with Python by John Hearty Large Scale Machine Learning with Python by Bastiaan Sjardin, Alberto Boschetti, Luca Massaron Style and approach This course is a smooth learning path that will teach you how to get started with Python machine learning for the real world, and develop solutions to real-world problems. Through this comprehensive course, you'll learn to create the most effective machine learning techniques from scratch and more!

Python Machine Learning from Scratch

***** BUY NOW (will soon return to 25.89 \$)*****Free eBook for customers who purchase the print book from Amazon***** Are you thinking of learning more about Machine Learning using Python? (For Beginners) This book would seek to explain common terms and algorithms in an intuitive way. The author used a progressive approach whereby we start out slowly and improve on the complexity of our solutions. 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.Instead of tough math formulas, this book contains several graphs and images which detail all important Machine Learning concepts and their applications. Target Users The book designed for a variety of target audiences. The most suitable users would include: 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 machine learning who desire a bird's eye view of current techniques and approaches. What's Inside This Book? Supervised Learning Algorithms Unsupervised Learning Algorithms Semi-supervised Learning Algorithms Reinforcement Learning Algorithms Overfitting and underfitting correctness The Bias-Variance Trade-off Feature Extraction and Selection A Regression Example: Predicting Boston Housing Prices Import Libraries: How to forecast and Predict Popular Classification Algorithms Introduction to K Nearest Neighbors Introduction to Support Vector Machine Example of Clustering Running K-means with Scikit-Learn Introduction to Deep Learning using TensorFlow Deep Learning Compared to Other Machine Learning Approaches Applications of Deep Learning How to run the Neural Network using TensorFlow Cases of Study with Real Data Sources & References Frequently Asked Questions Q: Is this book for me and do I need programming experience?A: If you want to smash Machine Learning from scratch, this book is for you. If you already wrote a few lines of code and recognize basic programming statements, you'll be OK.Q: Does this book include everything I need to become a Machine Learning expert?A: Unfortunately, no. This book is designed for readers taking their first steps in Machine Learning and further learning will be required beyond this book to master all aspects of Machine Learning.Q: Can I have a refund if this book is not fitted 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 at contact@aisciences.net.AI Sciences Company offers you a free eBooks at <http://aisciences.net/free/>

Machine Learning for Time-Series with Python

Get better insights from time-series data and become proficient in model performance analysis Key FeaturesExplore popular and modern machine learning methods including the latest online and deep learning algorithmsLearn to increase the accuracy of your predictions by matching the right model with the right problemMaster time series via real-world case studies on operations management, digital marketing, finance, and healthcareBook Description The Python time-series ecosystem is huge and often quite hard to get a good grasp on, especially for time-series since there are so many new libraries and new models. This book aims to deepen your understanding of time series by providing a comprehensive overview of popular Python time-series packages and help you build better predictive systems. Machine Learning for Time-Series with Python starts by re-introducing the basics of time series and then builds your understanding of traditional autoregressive models as well as modern non-parametric models. By observing practical examples and the theory behind them, you will become confident with loading time-series datasets from any source, deep learning models like recurrent neural networks and causal convolutional network models, and gradient boosting with feature engineering. This book will also guide you in matching the right model to the right problem by explaining the theory behind several useful models. You'll also have a look at real-world case studies covering weather, traffic, biking, and stock market data. By the end of this book, you should feel at home with effectively analyzing and applying machine learning methods to time-series. What you will learnUnderstand the main classes of time series and learn how to detect outliers and patternsChoose the right method to solve time-series problemsCharacterize seasonal and correlation patterns through autocorrelation and statistical techniquesGet to grips with time-series data visualizationUnderstand classical time-series models like ARMA

and ARIMAImplement deep learning models, like Gaussian processes, transformers, and state-of-the-art machine learning modelsBecome familiar with many libraries like Prophet, XGboost, and TensorFlowWho this book is for This book is ideal for data analysts, data scientists, and Python developers who want instantly useful and practical recipes to implement today, and a comprehensive reference book for tomorrow. Basic knowledge of the Python Programming language is a must, while familiarity with statistics will help you get the most out of this book.

Python Machine Learning

****Buy now (Will soon return to \$35.99 + Special Offer Below) **** Free Kindle eBook for customers who purchase the print book Are you thinking of learning more about Machine Learning with Practical Examples using Python? Machine learning is a field of Artificial Intelligence that uses algorithms to learn from data and make predictions. This means that we can feed data into an algorithm, and use it to make predictions about what might happen in the future. If you are looking for a book to help you understand how the Machine learning works by using Python, then this is a good book for you. Several Visual Illustrations and Examples Instead of tough math formulas, this book contains several graphs and images which detail all algorithms and their applications in all area of the real life. Why this book is different? This book takes a different approach that is based on providing simple examples of how machine learning algorithms work, and building on those examples step by step to encompass the more complicated parts of the algorithms. The book is a practical guide through the basic principles of machine learning, and how to get started with machine learning using Python based on libraries that make it easy to start. Python Codes for the Examples Shown In the Book You will build your machine learning model by using Python Target Users The book designed for a variety of target audiences. The most suitable users would include: Beginners who want to approach machine learning practices, but are too afraid to start Newbies in computer science techniques and machine learning Professionals in data science and social sciences Professors, lecturers or tutors who are looking to find better ways to explain the content to their students in the simplest and easiest way Students and academicians, especially those focusing on machine learning and deep learning What's Inside this Book? Introduction to Machine Learning? Essential Libraries and their Installation Basic of Python Language in Machine Learning Data and Inconsistencies in Machine Learning A Roadmap for building Machine Learning Systems Data Cleaning and Preparation Application of Supervised Learning Techniques with Python Applications of unsupervised learning Techniques with python Training Machine Learning Algorithms Combining Different Models for ensemble learning Frequently Asked Questions Q: Is this book for me and do I need programming experience? A: If you want to smash machine learning problems with Python and TensorFlow, 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 loan this book to friends? A: Yes. Under Amazon's Kindle Book Lending program, you can lend this book to friends and family for a duration of 14 days. Q: Does this book include everything I need to become a data science expert? A: Unfortunately, no. This book is designed for readers taking their first steps in machine learning and further learning will be required beyond this book to master all aspects of machine learning. Q: Can I have a refund if this book is not fitted 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. will also be happy to help you if you send us an email at customer_service@datasciences-book.com.

Python Machine Learning Cookbook

Discover powerful ways to effectively solve real-world machine learning problems using key libraries including scikit-learn, TensorFlow, and PyTorch Key FeaturesLearn and implement machine learning algorithms in a variety of real-life scenariosCover a range of tasks catering to supervised, unsupervised and reinforcement learning techniquesFind easy-to-follow code solutions for tackling common and not-so-common challengesBook 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 learnUse predictive modeling and apply it to real-world problemsExplore data visualization techniques to interact with your dataLearn how to build a recommendation engineUnderstand how to interact with text data and build models to analyze itWork with speech data and recognize spoken words using Hidden Markov ModelsGet well versed with reinforcement learning, automated ML, and transfer learningWork with image data and build systems for image recognition and biometric face recognitionUse deep neural networks to build an optical character recognition systemWho 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.

Hands-On Python Deep Learning for the Web

Use the power of deep learning with Python to build and deploy intelligent web applications Key FeaturesCreate next-generation intelligent web applications using Python libraries such as Flask and DjangoImplement deep learning algorithms and techniques for performing smart web automationIntegrate neural network architectures to create powerful full-stack web applicationsBook Description When used effectively, deep learning techniques can help you develop intelligent web apps. In this book, you'll cover the latest tools and technological practices that are being used to implement deep learning in web development using Python. Starting with the fundamentals of machine learning, you'll focus on DL and the basics of neural networks, including common variants such as convolutional neural networks (CNNs). You'll learn how to integrate them into websites with the frontends of different standard web tech stacks. The book then helps you gain

practical experience of developing a deep learning-enabled web app using Python libraries such as Django and Flask by creating RESTful APIs for custom models. Later, you'll explore how to set up a cloud environment for deep learning-based web deployments on Google Cloud and Amazon Web Services (AWS). Next, you'll learn how to use Microsoft's intelligent Emotion API, which can detect a person's emotions through a picture of their face. You'll also get to grips with deploying real-world websites, in addition to learning how to secure websites using reCAPTCHA and Cloudflare. Finally, you'll use NLP to integrate a voice UX through Dialogflow on your web pages. By the end of this book, you'll have learned how to deploy intelligent web apps and websites with the help of effective tools and practices. What you will learn

Explore deep learning models and implement them in your browser

Design a smart web-based client using Django and Flask

Work with different Python-based APIs for performing deep learning tasks

Implement popular neural network models with TensorFlow.js

Design and build deep web services on the cloud using deep learning

Get familiar with the standard workflow of taking deep learning models into production

Who this book is for

This deep learning book is for data scientists, machine learning practitioners, and deep learning engineers who are looking to perform deep learning techniques and methodologies on the web. You will also find this book useful if you're a web developer who wants to implement smart techniques in the browser to make it more interactive. Working knowledge of the Python programming language and basic machine learning techniques will be beneficial.

Python Machine Learning

Python makes machine learning easy for beginners and experienced developers With computing power increasing exponentially and costs decreasing at the same time, there is no better time to learn machine learning using Python. Machine learning tasks that once required enormous processing power are now possible on desktop machines. However, machine learning is not for the faint of heart—it requires a good foundation in statistics, as well as programming knowledge. Python Machine Learning will help coders of all levels master one of the most in-demand programming skillsets in use today. Readers will get started by following fundamental topics such as an introduction to Machine Learning and Data Science. For each learning algorithm, readers will use a real-life scenario to show how Python is used to solve the problem at hand.

- Python data science—manipulating data and data visualization
- Data cleansing
- Understanding Machine learning algorithms
- Supervised learning algorithms
- Unsupervised learning algorithms
- Deploying machine learning models

Python Machine Learning is essential reading for students, developers, or anyone with a keen interest in taking their coding skills to the next level.

Advanced Machine Learning with Python

Solve challenging data science problems by mastering cutting-edge machine learning techniques in Python

About This Book

Resolve complex machine learning problems and explore deep learning

Learn to use Python code for implementing a range of machine learning algorithms and techniques

A practical tutorial that tackles real-world computing problems through a rigorous and effective approach

Who This Book Is For

This title is for Python developers and analysts or data scientists who are looking to add to their existing skills by accessing some of the most powerful recent trends in data science. If you've ever considered building your own image or text-tagging solution, or of entering a Kaggle contest for instance, this book is for you! Prior experience of Python and grounding in some of the core concepts of machine learning would be helpful.

What You Will Learn

Compete with top data scientists by gaining a practical and theoretical understanding of cutting-edge deep learning algorithms

Apply your new found skills to solve real problems, through clearly-explained code for every technique and test

Automate large sets of complex data and overcome time-consuming practical challenges

Improve the accuracy of models and your existing input data using powerful feature engineering techniques

Use multiple learning techniques together to improve the consistency of results

Understand the hidden structure of datasets using a range of unsupervised techniques

Gain insight into how the experts solve challenging data problems with an effective, iterative, and validation-focused approach

Improve the effectiveness of your deep learning models further by using powerful ensembling techniques to strap multiple models together

In Detail

Designed to take you on a guided tour of the most relevant and powerful machine learning techniques in use today by top data scientists, this book is just what you need to push your Python algorithms to maximum potential. Clear examples and detailed code samples demonstrate deep learning techniques, semi-supervised learning, and more - all whilst working with real-world applications that include image, music, text, and financial data. The machine learning techniques covered in this book are at the forefront of commercial practice. They are applicable now for the first time in contexts such as image recognition, NLP and web search, computational creativity, and commercial/financial data modeling. Deep Learning algorithms and ensembles of models are in use by data scientists at top tech and digital companies, but the skills needed to apply them successfully, while in high demand, are still scarce. This book is designed to take the reader on a guided tour of the most relevant and powerful machine learning techniques. Clear descriptions of how techniques work and detailed code examples demonstrate deep learning techniques, semi-supervised learning and more, in real world applications. We will also learn about NumPy and Theano. By this end of this book, you will learn a set of advanced Machine Learning techniques and acquire a broad set of powerful skills in the area of feature selection & feature engineering.

Style and approach

This book focuses on clarifying the theory and code behind complex algorithms to make them practical, useable, and well-understood. Each topic is described with real-world applications, providing both broad contextual coverage and detailed guidance.

Python Machine Learning

You are interested in becoming a machine learning expert but don't know where to start from? Don't worry you don't need a big boring and expensive Textbook. This book is the best guide for you. Get your copy NOW!! Why this guide is the best one for Data Scientist? Here are the reasons:

The author has explored everything about machine learning and deep learning right from the basics. A simple language has been used. Many examples have been given, both theoretically and programmatically. Screenshots showing program outputs have been added. The book is written chronologically, in a step-by-step manner.

Book Objectives:

The Aims and Objectives of the Book:

To help you understand the basics of machine learning and deep learning.

To help you understand the various categories of machine learning algorithms.

To help you understand how different machine learning algorithms work.

You will learn how to implement various machine learning algorithms programmatically in Python.

To help you learn how to use Scikit-Learn and TensorFlow Libraries in Python.

To help you know how to analyze data programmatically to extract patterns, trends, and relationships between variables.

Who this Book is for?

Here are the target readers

for this book: Anybody who is a complete beginner to machine learning in Python. Anybody who needs to advance their programming skills in Python for machine learning programming and deep learning. Professionals in data science. Professors, lecturers or tutors who are looking to find better ways to explain machine learning to their students in the simplest and easiest way. Students and academicians, especially those focusing on neural networks, machine learning, and deep learning. What do you need for this Book? You are required to have installed the following on your computer: Python 3.X Numpy Pandas Matplotlib The Author guides you on how to install the rest of the Python libraries that are required for machine learning and deep learning. What is inside the book: Getting Started Environment Setup Using Scikit-Learn Linear Regression with Scikit-Learn k-Nearest Neighbors Algorithm K-Means Clustering Support Vector Machines Neural Networks with Scikit-learn Random Forest Algorithm Using TensorFlow Recurrent Neural Networks with TensorFlow Linear Classifier This book will teach you machine learning classifiers using scikit-learn and tensorflow . The book provides a great overview of functions you can use to build a support vector machine, decision tree, perceptron, and k-nearest neighbors. Thanks of this book you will be able to set up a learning pipeline that handles input and output data, pre-processes it, selects meaningful features, and applies a classifier on it. This book offers a lot of insight into machine learning for both beginners, as well as for professionals, who already use some machine learning techniques. Concepts and the background of these concepts are explained clearly in this tutorial.

Python Machine Learning for Beginners

Python Machine Learning for Beginners Machine Learning (ML) and Artificial Intelligence (AI) are here to stay. Yes, that's right. Based on a significant amount of data and evidence, it's obvious that ML and AI are here to stay. Consider any industry today. The practical applications of ML are really driving business results. Whether it's healthcare, e-commerce, government, transportation, social media sites, financial services, manufacturing, oil and gas, marketing and sales You name it. The list goes on. There's no doubt that ML is going to play a decisive role in every domain in the future. But what does a Machine Learning professional do? A Machine Learning specialist develops intelligent algorithms that learn from data and also adapt to the data quickly. Then, these high-end algorithms make accurate predictions. Python Machine Learning for Beginners presents you with a hands-on approach to learn ML fast. How Is This Book Different? AI Publishing strongly believes in learning by doing methodology. With this in mind, we have crafted this book with care. You will find that the emphasis on the theoretical aspects of machine learning is equal to the emphasis on the practical aspects of the subject matter. You'll learn about data analysis and visualization in great detail in the first half of the book. Then, in the second half, you'll learn about machine learning and statistical models for data science. Each chapter presents you with the theoretical framework behind the different data science and machine learning techniques, and practical examples illustrate the working of these techniques. When you buy this book, your learning journey becomes so much easier. The reason is you get instant access to all the related learning material presented with this book--references, PDFs, Python codes, and exercises--on the publisher's website. All this material is available to you at no extra cost. You can download the ML datasets used in this book at runtime, or you can access them via the Resources/Datasets folder. You'll also find the short course on Python programming in the second chapter immensely useful, especially if you are new to Python. Since this book gives you access to all the Python codes and datasets, you only need access to a computer with the internet to get started. The topics covered include: Introduction and Environment Setup Python Crash Course Python NumPy Library for Data Analysis Introduction to Pandas Library for Data Analysis Data Visualization via Matplotlib, Seaborn, and Pandas Libraries Solving Regression Problems in ML Using Sklearn Library Solving Classification Problems in ML Using Sklearn Library Data Clustering with ML Using Sklearn Library Deep Learning with Python TensorFlow 2.0 Dimensionality Reduction with PCA and LDA Using Sklearn Click the BUY NOW button to start your Machine Learning journey.

Python Machine Learning

If you want to learn how to design and master different Machine Learning algorithms quickly and easily, then keep reading. Today, we live in the era of Artificial Intelligence. Self-driving cars, customized product recommendations, real-time pricing, speech and facial recognition are just a few examples proving this truth. Also, think about medical diagnostics or automation of mundane and repetitive labor tasks; all these highlight the fact that we live in interesting times. From research topics to projects and applications in different stages of production, there is a lot going on in the world of Machine Learning. Machines and automation represent a huge part of our daily life. They are becoming part of our experience, and existence. This is Machine Learning. 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. Starting from scratch, Python Machine Learning explains how this happens, how machines build their experience and compounding knowledge. Data forms the core of Machine Learning because within data lie truths whose depths exceed our imagination. The computations machines can perform on data are incredible, beyond anything a human brain could do. Once we introduce data to a machine learning model, we must create an environment where we update the data stream frequently. This builds the machine's learning ability. The more data Machine Learning models are exposed to, the easier it is for these models to expand their potential. Some of the topics that we will discuss inside include: What is Machine Learning and how it is applied in real-world situations Understanding the differences between Machine Learning, Deep Learning, and Artificial Intelligence Supervised learning, unsupervised learning, and semi-supervised learning The place of Regression techniques in Machine Learning, including Linear Regression in Python Machine learning training models How to use Lists and Modules in Python The 12 essential libraries for Machine Learning in Python What is the Tensorflow library Artificial Neural Networks While most books only focus on widespread details without going deeper into the different models and techniques, Python Machine Learning explains how to master the concepts of Machine Learning technology and helps you to understand how researchers are breaking the boundaries of Data Science to mimic human intelligence in machines using various Machine Learning algorithms. 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. Would You Like To Know More? Scroll to the top of the page and click the \"Buy now\" button to get your copy now!

Python Machine Learning Blueprints

Discover a project-based approach to mastering machine learning concepts by applying them to everyday problems using libraries such as scikit-learn, TensorFlow, and Keras. Key Features: Get to grips with Python's machine learning libraries including scikit-learn, TensorFlow, and Keras. Implement advanced concepts and popular machine learning algorithms in real-world projects. Build analytics, computer vision, and neural network projects. Book Description: Machine learning is transforming the way we understand and interact with the world around us. This book is the perfect guide for you to put your knowledge and skills into practice and use the Python ecosystem to cover key domains in machine learning. This second edition covers a range of libraries from the Python ecosystem, including TensorFlow and Keras, to help you implement real-world machine learning projects. The book begins by giving you an overview of machine learning with Python. With the help of complex datasets and optimized techniques, you'll go on to understand how to apply advanced concepts and popular machine learning algorithms to real-world projects. Next, you'll cover projects from domains such as predictive analytics to analyze the stock market and recommendation systems for GitHub repositories. In addition to this, you'll also work on projects from the NLP domain to create a custom news feed using frameworks such as scikit-learn, TensorFlow, and Keras. Following this, you'll learn how to build an advanced chatbot, and scale things up using PySpark. In the concluding chapters, you can look forward to exciting insights into deep learning and you'll even create an application using computer vision and neural networks. By the end of this book, you'll be able to analyze data seamlessly and make a powerful impact through your projects. What you will learn: Understand the Python data science stack and commonly used algorithms. Build a model to forecast the performance of an Initial Public Offering (IPO) over an initial discrete trading window. Understand NLP concepts by creating a custom news feed. Create applications that will recommend GitHub repositories based on ones you've starred, watched, or forked. Gain the skills to build a chatbot from scratch using PySpark. Develop a market-prediction app using stock data. Delve into advanced concepts such as computer vision, neural networks, and deep learning. Who this book is for: This book is for machine learning practitioners, data scientists, and deep learning enthusiasts who want to take their machine learning skills to the next level by building real-world projects. The intermediate-level guide will help you to implement libraries from the Python ecosystem to build a variety of projects addressing various machine learning domains. Knowledge of Python programming and machine learning concepts will be helpful.

Python Machine Learning

Are you a novice programmer who wants to learn Python Machine Learning? Are you worried about how to translate what you already know into Python? This book will help you overcome those problems! As machines get ever more complex and perform more and more tasks to free up our time, so it is that new ideas are developed to help us continually improve their speed and abilities. One of these is Python and in Python Machine Learning: 3 books in 1 - The Ultimate Beginner's Guide to Learn Python Machine Learning Step by Step using Scikit-Learn and Tensorflow, you will discover information and advice on: Book 1 • What machine learning is • The history of machine learning • Approaches to machine learning • Support vector machines • Machine learning and neural networks • The Internet of Things (IoT) • The future of machine learning • And more... Book 2 • The principles surrounding Python • Different types of networks so you can choose what works best for you • Features of the system • Real world feature engineering • Understanding the techniques of semi-supervised learning • And more... Book 3 • How advanced tensorflow can be used • Neural network models and how to get the most from them • Machine learning with Generative Adversarial Networks • Translating images with cross domain GANs • TF clusters and how to use them • How to debug TF models • And more... This book has been written specifically for beginners and the simple, step by step instructions and plain language make it an ideal place to start for anyone who has a passing interest in this fascinating subject. Python really is an amazing system and can provide you with endless possibilities when you start learning about it. Get a copy of Python Machine Learning today and see where the future lies.

Python Machine Learning

If you want to learn how to design and master different Machine Learning algorithms quickly and easily, then keep reading. Today, we live in the era of Artificial Intelligence. Self-driving cars, customized product recommendations, real-time pricing, speech and facial recognition are just a few examples proving this truth. Also, think about medical diagnostics or automation of mundane and repetitive labor tasks; all these highlight the fact that we live in interesting times. From research topics to projects and applications in different stages of production, there is a lot going on in the world of Machine Learning. Machines and automation represent a huge part of our daily life. They are becoming part of our experience and existence. This is Machine Learning. 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. Starting from scratch, Python Machine Learning explains how this happens, how machines build their experience and compounding knowledge. Data forms the core of Machine Learning because within data lie truths whose depths exceed our imagination. The computations machines can perform on data are incredible, beyond anything a human brain could do. Once we introduce data to a machine learning model, we must create an environment where we update the data stream frequently. This builds the machine's learning ability. The more data Machine Learning models are exposed to, the easier it is for these models to expand their potential. Some of the topics that we will discuss inside include: What is Machine Learning and how it is applied in real-world situations Understanding the differences between Machine Learning, Deep Learning, and Artificial Intelligence Supervised learning, unsupervised learning, and semi-supervised learning The place of Regression techniques in Machine Learning, including Linear Regression in Python Machine learning training models How to use Lists and Modules in Python The 12 essential libraries for Machine Learning in Python What is the Tensorflow library Artificial Neural Networks And Much More! While most books only focus on widespread details without going deeper into the different models and techniques, Python Machine Learning explains how to master the concepts of Machine Learning technology and helps you to understand how researchers are breaking the boundaries of Data Science to mimic human intelligence in machines using various Machine Learning algorithms. 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. Would You Like To Know More? Scroll up and click the BUY NOW button to get your copy now!

Python Machine Learning

Buy the Paperback Version of this Book and get the Kindle Book version for FREE! Order Python Machine Learning: The Ultimate Guide for Beginners to Machine Learning with Python, Programming and Deep Learning, Artificial Intelligence, Neural Networks, and Data Science, NumPy, Scikit Learn, Pandas and Tensorflow now to learn all the basic concepts you need to know about machine learning and Python. The purpose of this book is to guide you step by step through the entire process of working with various machine learning algorithms. First you will learn the basics of working with Python in order to acquire the basic knowledge needed to understand machine learning. In each chapter you will learn a great deal of theory backed up by practical examples. Once you have the basics down, you will get to the core of machine learning algorithms and techniques. You will explore: Why machine learning is important and so popular with today's tech industry. The basics of working with Python. How to set up the development environment with the help of Python scientific distributions and libraries. How to preprocess your data and prepare it for training. How to work with the most important machine learning algorithms such as support vector machines and decision trees. The power of neural networks and how to work with feedforward, recurrent, and convolutional networks. Learning machine learning and working with training algorithms doesn't have to be a complex journey. Scroll up and click buy now so that Python Machine Learning can guide you step by step through the entire process. Learn using clear, simple, real-world examples and enjoy the power of Python and machine learning!

Python Deep Learning Projects

Insightful projects to master deep learning and neural network architectures using Python and Keras Key FeaturesExplore deep learning across computer vision, natural language processing (NLP), and image processingDiscover best practices for the training of deep neural networks and their deploymentAccess popular deep learning models as well as widely used neural network architecturesBook 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 learnSet up a deep learning development environment on Amazon Web Services (AWS)Apply GPU-powered instances as well as the deep learning AMIImplement seq-to-seq networks for modeling natural language processing (NLP)Develop an end-to-end speech recognition systemBuild a system for pixel-wise semantic labeling of an imageCreate a system that generates images and their regionsWho 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

Introduction to Machine Learning with Python

What exactly is machine learning and why is it so valuable in the online business ? Are you thinking of learning Python machine learning ?This book teach well you the practical ways to do it ! ★★★ Buy the Paperback version and get the Kindle Book versions for FREE ★★★ Machine Learning is a branch of AI that applied algorithms to learn from data and create predictions - this is important in predicting the world around us. Python is a popular and open-source programming language. In addition, it is one of the most applied languages in artificial intelligence and other scientific fields. Today, it is a top skill in high demand in the job market. Machine learning has become an integral part of many commercial applications and research projects. Using Python, even as a beginner, this book will teach you practical ways to build your own machine learning solutions. Inside Introduction to Machine Learning with Python, you'll learn: Fundamental concepts and applications of machine learning Understand the various categories of machine learning algorithms. Some of the branches of Artificial Intelligence The basics of Python Concepts of Machine Learning using Python Python Machine Learning Applications Machine Learning Case Studies with Python The way that Python evolved throughout time And many more Throughout the recent years, artificial intelligence and machine learning have made some enormous, significant strides in terms of universal, global applicability. You'll discover the steps required to develop a successful machine-learning application using Python. Introduction to Machine Learning with Python is a step-by-step guide for any person who wants to start learning Artificial Intelligence - It will help you in preparing a solid foundation and learn any other high-level courses. Stay ahead and make a choice that will last... If You like to know more, scroll to the top and select \" BUY NOW \" buttom ★★★ Buy the Paperback version and get the Kindle Book versions for FREE ★★★

Python: Deeper Insights into Machine Learning

Leverage benefits of machine learning techniques using Python About This Book Improve and optimise machine learning systems using effective strategies. Develop a strategy to deal with a large amount of data. Use of Python code for implementing a range of machine learning algorithms and techniques. Who This Book Is For This title is for data scientist and researchers who are already into the field of data science and want to see machine learning in action and explore its real-world application. Prior knowledge of Python programming and mathematics is must with basic knowledge of machine learning concepts. What You Will Learn Learn to write clean and elegant Python code that will optimize the strength of your algorithms Uncover hidden patterns and structures in data with clustering Improve accuracy and consistency of results using powerful feature engineering techniques Gain practical and theoretical understanding of cutting-edge deep learning algorithms Solve unique tasks by building models Get grips on the machine learning design process In Detail Machine learning and predictive analytics are becoming one of the key strategies for unlocking growth in a challenging contemporary marketplace. It is one of the fastest growing trends in modern computing, and everyone wants to get into the field of machine learning. In order to obtain sufficient

recognition in this field, one must be able to understand and design a machine learning system that serves the needs of a project. The idea is to prepare a learning path that will help you to tackle the real-world complexities of modern machine learning with innovative and cutting-edge techniques. Also, it will give you a solid foundation in the machine learning design process, and enable you to build customized machine learning models to solve unique problems. The course begins with getting your Python fundamentals nailed down. It focuses on answering the right questions that cover a wide range of powerful Python libraries, including scikit-learn, Theano and Keras. After getting familiar with Python core concepts, it's time to dive into the field of data science. You will further gain a solid foundation on the machine learning design and also learn to customize models for solving problems. At a later stage, you will get a grip on more advanced techniques and acquire a broad set of powerful skills in the area of feature selection and feature engineering. Style and approach This course includes all the resources that will help you jump into the data science field with Python. The aim is to walk through the elements of Python covering powerful machine learning libraries. This course will explain important machine learning models in a step-by-step manner. Each topic is well explained with real-world applications with detailed guidance. Through this comprehensive guide, you will be able to explore machine learning techniques.

Machine Learning with Python

Do you Know exactly M.L why is it so valuable in data business ? Are you thinking of learning but are you afraid it's not enough ? This book teaches you, thanks to Python, the ways to do it ! ★★ Buy the Paperback version and get the Kindle Book versions for FREE ★★ Machine Learning is a branch of AI that applied algorithms to learn from data and create predictions - this is important in predicting the world around us. Today, ML algorithms accomplish tasks that until recently only expert humans could perform and, as machines get ever more complex and perform more and more tasks to free up our time, so it is that new ideas are developed to help us continually improve their speed and abilities. Programmers who know close to nothing about this technology, now, can use simple, efficient tools to implement programs capable of learning from data. Python is a popular and open-source programming language. In addition, it is one of the most applied languages in artificial intelligence and other scientific fields. Inside \"Machine Learning with Python\" you'll learn: Fundamental concepts and applications of machine learning Understand the various categories of machine learning algorithms. Some of the branches of Artificial Intelligence The basics of Python Concepts of Machine Learning using Python Python Machine Learning Applications Machine Learning Case Studies with Python The way that Python evolved throughout time And many more Understand the key frameworks in ML Latest Python open source libraries in ML ML techniques using real-world data The ML Classifiers Using Scikit-Learn Implementing a Multilayer Artificial Neural Network from Scratch The Mechanics of TensorFlow ML Model into a Web Application The future of ML You are required to have installed the following on your computer: Python 3.X Numpy Pandas Matplotlib Throughout the recent years, artificial intelligence and machine learning have made some enormous, significant strides in terms of universal, global applicability. You'll discover the steps required to develop a successful machine-learning application using Python. This book offers a lot of insight into machine learning for both beginners, as well as for professionals, who already use some machine learning techniques. Using the latest Python open source libraries, this book offers the practical knowledge you need to create and contribute to machine learning and modern data analysis. Machine Learning with Python is a step-by-step guide for any person who wants to start learning Artificial Intelligence - It will help you in preparing a solid foundation and learn any other high-level courses. Stay ahead and make a choice that will last... If You like to know more, scroll to the top and select \" BUY NOW \" button ★★ Buy the Paperback version and get the Kindle Book versions for FREE ★★

Python Machine Learning

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Machine Learning

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,

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