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Deep Learning with PyTorch Dec 09 2020 Every other day we hear about new ways to put deep learning to good use: improved medical imaging, accurate credit card fraud detection, long range weather forecasting, and more. PyTorch puts these superpowers in your hands, providing a comfortable Python experience that gets you started quickly and then grows with you as you—and your deep learning skills—become more sophisticated. Deep Learning with PyTorch will make that journey engaging and fun. Summary Every other day we hear about new ways to put deep learning to good use: improved medical imaging, accurate credit card fraud detection, long range weather forecasting, and more. PyTorch puts these superpowers in your hands, providing a comfortable Python experience that gets you started quickly and then grows with you as you—and your deep learning skills—become more sophisticated. Deep Learning with PyTorch will make that journey engaging and fun. Foreword by Soumith Chintala, Cocreator of PyTorch. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Although many deep learning tools use Python, the PyTorch library is truly Pythonic. Instantly familiar to anyone who knows PyData tools like NumPy and scikit-learn, PyTorch simplifies deep learning without sacrificing advanced features. It's excellent for building quick models, and it scales smoothly from laptop to enterprise. Because companies like Apple, Facebook, and JPMorgan Chase rely on PyTorch, it's a great skill to have as you expand your career options. It's easy to get started with PyTorch. It minimizes cognitive overhead without sacrificing the access to advanced features, meaning you can focus on what matters the most - building and training the latest and greatest deep learning models and contribute to making a dent in the world. PyTorch is also a snap to scale and extend, and it partners well with other Python tooling. PyTorch has been adopted by hundreds of deep learning practitioners and several first-class players like FAIR, OpenAI, FastAI and Purdue. About the book Deep Learning with PyTorch teaches you to create neural networks and deep learning systems with PyTorch. This practical book quickly gets you to work building a real-world example from scratch: a tumor image classifier. Along the way, it covers best practices for the entire DL pipeline, including the PyTorch Tensor API, loading data in Python, monitoring training, and visualizing results. After covering the basics, the book will take you on a journey through larger projects. The centerpiece of the book is a neural network designed for cancer detection. You'll discover ways for training networks with limited inputs and start processing data to get some results. You'll sift through the unreliable initial results and focus on how to diagnose and fix the problems in your neural network. Finally, you'll look at ways to improve your results by training with augmented data, make improvements to the model architecture, and perform other fine tuning. What's inside Training deep neural networks Implementing modules and loss functions Utilizing pretrained models from PyTorch Hub Exploring code samples in Jupyter Notebooks About the reader For Python programmers with an interest in machine learning. About the author Eli Stevens had roles from software engineer to CTO, and is currently working on machine learning in the self-driving-car industry. Luca Antiga is cofounder of an AI engineering company and an AI tech startup, as well as a former PyTorch contributor. Thomas Viehmann is a PyTorch core developer and machine learning trainer and consultant. consultant based in Munich, Germany and a PyTorch core developer. Table of Contents PART 1 - CORE PYTORCH 1 Introducing deep learning and the PyTorch Library 2 Pretrained networks 3 It starts with a tensor 4 Real-world data representation using tensors 5 The mechanics of learning 6 Using a neural network to fit the data 7 Telling birds from airplanes: Learning from images 8 Using convolutions to generalize PART 2 - LEARNING FROM IMAGES IN THE REAL WORLD: EARLY DETECTION OF LUNG CANCER 9 Using PyTorch to fight cancer 10 Combining data sources into a unified dataset 11 Training a classification model to detect suspected tumors 12 Improving training with metrics and augmentation 13 Using segmentation to find suspected nodules 14 End-to-end nodule analysis, and where to go next PART 3 - DEPLOYMENT 15 Deploying to production

Pro Git Aug 05 2020 Git is the version control system developed by Linus Torvalds for Linux kernel development. It took the open source world by storm since its inception in 2005, and is used by small development shops and giants like Google, Red Hat, and IBM, and of course many open source projects. A book by Git experts to turn you into a Git expert Introduces the world of distributed version control Shows how to build a Git development workflow

The 2-Hour Job Search, Second Edition Jan 22 2022 Use the latest technology to target potential employers and secure the first interview--no matter your experience, education, or network--with these revised and updated tools and recommendations. "The most practical, stress-free guide ever written for finding a white-collar job." —Dan Heath, coauthor of Switch and Made to Stick Technology has changed not only the way we do business, but also the way we look for work. The 2-Hour Job Search rejects laundry lists of conventional wisdom in favor of a streamlined job search approach that produces results quickly and efficiently. In three steps, creator Steve Dalton shows you how to select, prioritize, and make contact with potential employers so you can land that critical first interview. In this revised second edition, you'll find updated advice on how to efficiently surf online job postings, how to reach out to contacts at your dream workplace and when to follow up, and advice on using LinkedIn, Indeed, and Google to your best advantage. Dalton incorporates ideas from leading thinkers in behavioral economics, psychology, and game theory, as well as success stories from readers of the first edition. The 2-Hour Job Search method has proven so successful that it has been shared at schools across the globe and is a formal part of the curriculum for all first-year MBAs at Duke University. With this book, you'll learn how to make it work for you too.

Invent Your Own Computer Games with Python, 4th Edition Jul 28 2022 Invent Your Own Computer Games with Python will teach you how to make computer games using the popular Python programming language—even if you've never programmed before! Begin by building classic games like Hangman, Guess the Number, and Tic-Tac-Toe, and then work your way up to more advanced games, like a text-based treasure hunting game and an animated collision-dodging game with sound effects. Along the way, you'll learn key programming and math concepts that will help you take your game programming to the next level. Learn how to: –Combine loops, variables, and flow control statements into real working programs –Choose the right data structures for the job, such as lists, dictionaries, and tuples –Add graphics and animation to your games with the pygame module –Handle keyboard and mouse input –Program simple artificial intelligence so you can play against the computer –Use cryptography to convert text messages into secret code –Debug your programs and find common errors As you work through each game, you'll build a solid foundation in Python and an understanding of computer science fundamentals. What new game will you create with the power of Python? The projects in this book are compatible with Python 3.

Advanced R, Second Edition Jan 10 2021 Advanced R helps you understand how R works at a fundamental level. It is designed for R programmers who want to deepen their understanding of the language, and programmers experienced in other languages who want to understand what makes R different and special. This book will teach you the foundations of R; three fundamental programming paradigms (functional, object-oriented, and metaprogramming); and powerful techniques for debugging and optimising your code. By reading this book, you will learn: The difference between an object and its name, and why the distinction is important The important vector data structures, how they fit together, and how you can pull them apart using subsetting The fine details of functions and environments The condition system, which powers messages, warnings, and errors The powerful functional programming paradigm, which can replace many for loops The three most important OO systems: S3, S4, and R6 The tidy eval toolkit for metaprogramming, which allows you to manipulate code and control evaluation Effective debugging techniques that you can deploy, regardless of how your code is run How to find and remove performance bottlenecks The second edition is a comprehensive update: New foundational chapters: "Names and values," "Control flow," and "Conditions" comprehensive coverage of object oriented programming with chapters on S3, S4, R6, and how to choose between them Much deeper coverage of metaprogramming, including the new tidy evaluation framework use of new package like rlang (http://rlang.r-lib.org), which provides a clean interface to low-level operations, and purr (http://purrr.tidyverse.org/) for functional programming Use of color in code chunks and figures Hadley Wickham is Chief Scientist at RStudio, an Adjunct Professor at Stanford University and the University of Auckland, and a member of the R Foundation. He is the lead developer of the tidyverse, a collection of R packages, including ggplot2 and dplyr, designed to support data science. He is also the author of R for Data Science (with Garrett Grolemund), R Packages, and ggplot2: Elegant Graphics for Data Analysis.

Quests for Freedom, Second Edition Feb 20 2022 This book is the result of intensive, multiyear international and interdisciplinary cooperation. From many perspectives, the book's contributors address themes of freedom and slavery; self-determination and concepts of freedom; God-given and imprinted freedom; freedom as an ethos of belonging and solidarity; and relations between freedom, human rights, and theological orientation.

Reinforcement Learning, second edition Oct 31 2022 The significantly expanded and updated new edition of a widely used text on reinforcement learning, one of the most active research areas in artificial intelligence. Reinforcement learning, one of the most active research areas in artificial intelligence, is a computational approach to learning whereby an agent tries to maximize the total amount of reward it receives while interacting with a complex, uncertain environment. In Reinforcement Learning, Richard Sutton and Andrew Barto provide a clear and simple account of the field's key ideas and algorithms. This second edition has been significantly expanded and updated, presenting new topics and updating coverage of other topics. Like the first edition, this second edition focuses on core online learning algorithms, with the more mathematical material set off in shaded boxes. Part I covers as much of reinforcement learning as possible without going beyond the tabular case for which exact solutions can be found. Many algorithms presented in this part are new to the second edition, including UCB, Expected Sarsa, and Double Learning. Part II extends these ideas to function approximation, with new sections on such topics as artificial neural networks and the Fourier basis, and offers expanded treatment of off-policy learning and policy-gradient methods. Part III has new chapters on reinforcement learning's relationships to psychology and neuroscience, as well as an updated case-studies chapter including AlphaGo and AlphaGo Zero, Atari game playing, and IBM Watson's wagering strategy. The final chapter discusses the future societal impacts of reinforcement learning.

Life Coach Handbook (Second Edition) Oct 07 2020 Second Edition This textbook covers the fundamentals of setting up a coaching business. I share tools and techniques that will assist you in launching and running your thriving coaching business. I approach this topic from coaching, psychology, counseling, marketing, and corporate management perspectives. The following foundational coaching resources are covered in this handbook: Context— Background information, research findings, theory, and contextual material that will give you the background you need. Guidelines— Best practices that will streamline your coaching processes and guarantee you deliver high-quality coaching services to your clients. Planning— Critical planning and decision-making techniques to rapidly optimize your coaching business. Records— Best practices for professionally documenting coaching information such as notes, records, intake, agreements, questionnaires, and feedback. Skills— Core coaching skills, techniques, and tips so you can get certified, launch your coaching business, and start immediately. Mental

Health— Insights, context, and tools that will ensure you take into account, manage, and appropriately refer clients with mental health issues. Business— Foundational knowledge needed to run your business, manage financials, market your services effectively, create your brand, and build your Internet presence. Exercises— Proven techniques that will generate immediate success by jumpstarting the coaching process with your clients. Forms— Sample forms and business documents you can adapt and tune to your specific coaching practice. Tools— Smart tools that will help pinpoint particular client issues so you can make informed, empathetic, and professional coaching decisions.

Making Modern Science Nov 27 2019 In this new edition of the top-selling coursebook, seasoned historians Peter J. Bowler and Iwan Rhys Morus expand on their authoritative survey of how the development of science has shaped our world. Exploring both the history of science and its influence on modern thought, the authors chronicle the major developments in scientific thinking, from the revolutionary ideas of the seventeenth century to contemporary issues in genetics, physics, and more. Designed for entry-level college courses and as a single-volume introduction for the general reader, this book presents the history of science not as a series of names and dates but as an interconnected and complex web of relationships joining science and society. Thoroughly revised and expanded, the second edition draws on the latest research and scholarship. It also contains two entirely new chapters: one that explores the impact of computing on the development of science and another that surveys the complex interaction of Western science with the cultures of the rest of the world.

Emergency Vascular and Endovascular Surgical Practice Second Edition Oct 26 2019 Emergency vascular and endovascular practice comprises almost half the workload undertaken by the majority of vascular surgeons. Most vascular emergencies are characterised by the sudden occlusion, rupture or injury of a blood vessel placing organ, limb and life at risk. An attitude of urgency and of good judgement, both in diagnostic assessment and the application of evidence-based vascular and endovascular techniques, is crucial to the achievement of optimal outcomes. This book is structured with the emphasis on clinical presentation, the objective being to provide accessible and highly practical advice to the vascular surgeon faced with a particular emergency. Distinguished vascular surgeons, vascular radiologists and other specialists around the world have enriched this book with authoritative contributions reflecting their experience and expertise. For ease of reference the text is divided into nine sections, leading with introductory chapters on general considerations such as pathophysiology, preoperative diagnosis, risk assessment and medico-legal aspects of vascular emergencies. That is followed by a series of clinical sections covering acute cerebrovascular syndromes, acute limb ischaemic states, the acutely swollen limb, thoraco-abdominal catastrophes, acute complications of endovascular aortic repair, regional vascular trauma and iatrogenic injuries. It concludes with a section on miscellaneous, but important, acute vascular challenges. Throughout the book, wherever appropriate, modern endovascular techniques are given full coverage. International in its approach, this book will fast become established as the text devoted to the surgical management of vascular and endovascular emergencies. It is essential reading for vascular surgeons and radiologists and a useful reference source for general and trauma surgeons, angiologists and emergency physicians.

You Don't Know JS: Scope & Closures May 14 2021 No matter how much experience you have with JavaScript, odds are you don't fully understand the language. This concise yet in-depth guide takes you inside scope and closures, two core concepts you need to know to become a more efficient and effective JavaScript programmer. You'll learn how and why they work, and how an understanding of closures can be a powerful part of your development skillset. Like other books in the "You Don't Know JS" series, Scope and Closures dives into trickier parts of the language that many JavaScript programmers simply avoid. Armed with this knowledge, you can achieve true JavaScript mastery. Learn about scope, a set of rules to help JavaScript engines locate variables in your code Go deeper into nested scope, a series of containers for variables and functions Explore function- and block-based scope, "hoisting", and the patterns and benefits of scope-based hiding Discover how to use closures for synchronous and asynchronous tasks, including the creation of JavaScript libraries

Spark in Action, Second Edition Sep 17 2021 Summary The Spark distributed data processing platform provides an easy-to-implement tool for ingesting, streaming, and processing data from any source. In Spark in Action, Second Edition, you'll learn to take advantage of Spark's core features and incredible processing speed, with applications including real-time computation, delayed evaluation, and machine learning. Spark skills are a hot commodity in enterprises worldwide, and with Spark's powerful and flexible Java APIs, you can reap all the benefits without first learning Scala or Hadoop. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Analyzing enterprise data starts by reading, filtering, and merging files and streams from many sources. The Spark data processing engine handles this varied volume like a champ, delivering speeds 100 times faster than Hadoop systems. Thanks to SQL support, an intuitive interface, and a straightforward multilanguage API, you can use Spark without learning a complex new ecosystem. About the book Spark in Action, Second Edition, teaches you to create end-to-end analytics applications. In this entirely new book, you'll learn from interesting Java-based examples, including a complete data pipeline for processing NASA satellite data. And you'll discover Java, Python, and Scala code samples hosted on GitHub that you can explore and adapt, plus appendixes that give you a cheat sheet for installing tools and understanding Spark-specific terms. What's inside Writing Spark applications in Java Spark application architecture Ingestion through files, databases, streaming, and Elasticsearch Querying distributed datasets with Spark SQL About the reader This book does not assume previous experience with Spark, Scala, or Hadoop. About the author Jean-Georges Perrin is an experienced data and software architect. He is France's first IBM Champion and has been honored for 12 consecutive years. Table of Contents PART 1 - THE THEORY CRIPPLED BY AWESOME EXAMPLES 1 So, what is Spark, anyway? 2 Architecture and flow 3 The majestic role of the dataframe 4 Fundamentally lazy 5 Building a simple app for deployment 6 Deploying your simple app PART 2 - INGESTION 7 Ingestion from files 8 Ingestion from databases 9 Advanced ingestion: finding data sources and building your own 10 Ingestion through structured streaming PART 3 - TRANSFORMING YOUR DATA 11 Working with SQL 12 Transforming your data 13 Transforming entire documents 14 Extending transformations with user-defined functions 15 Aggregating your data PART 4 - GOING FURTHER 16 Cache and checkpoint: Enhancing Spark's performances 17 Exporting data and building full data pipelines 18 Exploring deployment

Metallurgy for the Non-Metallurgist, Second Edition Aug 24 2019 The completely revised Second Edition of Metallurgy for the Non-Metallurgist provides a solid understanding of the basic principles and current practices of metallurgy. The new edition has been extensively updated with broader coverage of topics, new and improved illustrations, and more explanation of basic concepts. It is a "must-have" ready reference on metallurgy!

Machine Learning for Absolute Beginners Mar 31 2020 "The manner in which computers are now able to mimic human thinking to process information is rapidly exceeding human capabilities in everything from chess to picking the winner of a song contest. In the modern age of machine learning, computers do not strictly need to receive an 'input command' to perform a task, but rather 'input data'. From the input of data they are able to form their own decisions and take actions virtually as a human world. But given it is a machine, it can consider many more scenarios and execute far more complicated calculations to solve complex problems. This is the element that excites data scientists and machine learning engineers the most. The ability to solve complex problems never before attempted. This book will dive in to introduce machine learning, and is ideal for beginners starting out in machine learning."--page 4 of cover.

Fascial Fitness, Second Edition Jun 14 2021 A bestseller (over 80,000 copies sold) in a second, updated edition. Learn fascial exercises to improve mobility and flexibility, avoid and treat pain, and improve sports performance. In this second edition of his best-selling guide to fascial fitness, fascia researcher and Rolfing therapist Dr. Robert Schleip shows you a series of practical exercises that you can easily build into your day-to-day routine. He introduces the most recent scientific findings from the world of fascial research, and explains which methods and equipment are most effective for fascial health (as well as which ones do more harm than good!). These new findings are already changing the shape of physiotherapy and the methods of treatment and recovery we use today, and will continue to do so in the future. Physiotherapists, sports scientists, and doctors agree that if we want to stay flexible, energetic and pain-free in our day-to-day lives and sporting pursuits, we need to look after our connective tissue - our 'fascia'. There has been a great deal of research into this over the last few years, all of which shows that the fascia around our muscles plays a huge role in keeping us fit, healthy, flexible, and feeling good. This versatile tissue transfers energy to the muscles, communicates with the nervous system, acts as a sensory organ, helps to protect and regenerate our internal organs, and provides the foundations for a healthy physique. We used to think it was our muscles doing all the work, but now we know the connective tissue plays a big part, too. It responds to stress and other stimuli, and when it gets matted or sticks together, it can cause pain and mobility problems. That's why it's so important to train our fascia - and just 10 minutes, twice a week is all it takes!

Distribution-Free Statistical Methods Nov 19 2021 Basic concepts in distribution-free methods; One-sample location problems; Miscellaneous one-sample problems; Two-sample problems; Straight-line regression; Multiple regression and general linear models; Bivariate problems; Appendix; Bibliography.

Compilation of EPA's Sampling and Analysis Methods, Second Edition Apr 12 2021 The popular first edition of this book contained approximately 600 analyte/method summaries. This new edition contains twice as many new EPA-approved methods for testing and analyzing industrial chemicals, pesticides, herbicides, dioxins, and PCBs and is a printed version of the EPA's Sampling and Analysis Methods Database. Each analyte/method summary contains all of the information required to stand alone as a reference. Thus, in addition to a brief summary of each method, descriptions include required instrumentation, interferences, sampling containers, preservation techniques, maximum holding times, detection levels, accuracy, precision, quality control requirements, EPA reference, and, when available, EPA contacts with phone numbers. Each summarized report is a "stand-alone" document.

Learn Azure in a Month of Lunches, Second Edition May 02 2020 Learn Azure in a Month of Lunches, Second Edition, is a tutorial on writing, deploying, and running applications in Azure. In it, you'll work through 21 short lessons that give you real-world experience. Each lesson includes a hands-on lab so you can try out and lock in your new skills. Summary You can be incredibly productive with Azure without mastering every feature, function, and service. Learn Azure in a Month of Lunches, Second Edition gets you up and running quickly, teaching you the most important concepts and tasks in 21 practical bite-sized lessons. As you explore the examples, exercises, and labs, you'll pick up valuable skills immediately and take your first steps to Azure mastery! This fully revised new edition covers core changes to the Azure UI, new Azure features, Azure containers, and the upgraded Azure Kubernetes Service. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Microsoft Azure is vast and powerful, offering virtual servers, application templates, and prebuilt services for everything from data storage to AI. To navigate it all, you need a trustworthy guide. In this book, Microsoft engineer and Azure trainer Iain Foulds focuses on core skills for creating cloud-based applications. About the book Learn Azure in a Month of Lunches, Second Edition, is a tutorial on writing, deploying, and running applications in Azure. In it, you'll work through 21 short lessons that give you real-world experience. Each lesson includes a hands-on lab so you can try out and lock in your new skills. What's inside Understanding Azure beyond point-and-click Securing applications and data Automating your environment Azure services for machine learning, containers, and more About the reader This book is for readers who can write and deploy simple web or client/server applications. About the author Iain Foulds is an engineer and senior content developer with Microsoft. Table of Contents PART 1 - AZURE CORE SERVICES 1 Before you begin 2 Creating a virtual machine 3 Azure Web Apps 4 Introduction to Azure Storage 5 Azure Networking basics PART 2 - HIGH AVAILABILITY AND SCALE 6 Azure Resource Manager 7 High availability and redundancy 8 Load-balancing applications 9 Applications that scale 10 Global databases with Cosmos DB 11 Managing network traffic and routing 12 Monitoring and troubleshooting PART 3 - SECURE BY DEFAULT 13 Backup, recovery, and replication 14 Data encryption 15 Securing information with Azure Key Vault 16 Azure Security Center and updates PART 4 - THE COOL STUFF 17 Machine learning and artificial intelligence 18 Azure Automation 19 Azure containers 20 Azure and the Internet of Things 21 Serverless computing

An Introduction to Statistical Learning Sep 05 2020 An Introduction to Statistical Learning provides an accessible overview of the field of statistical learning, an essential toolset for making sense of the vast and complex data sets that have emerged in fields ranging from biology to finance to marketing to astrophysics in the past twenty years. This book presents some of the most important modeling and prediction techniques, along with relevant applications. Topics include linear regression, classification, resampling methods, shrinkage approaches, tree-based methods, support vector machines, clustering, and more. Color graphics and real-world examples are used to illustrate the methods presented. Since the goal of this textbook is to facilitate the use of these statistical learning techniques by practitioners in science, industry, and other fields, each chapter contains a tutorial on implementing the analyses and methods presented in R, an extremely popular open source statistical software platform. Two of the authors co-wrote The Elements of Statistical Learning (Hastie, Tibshirani and Friedman, 2nd edition 2009), a popular reference book for statistics and machine learning researchers. An Introduction to Statistical Learning covers many of the same topics, but at a level accessible to a

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

<u>Artificial Intelligence</u> Sep 29 2022 Artificial Intelligence presents a practical guide to AI, including agents, machine learning and problem-solving simple and complex domains.

Groovy in Action Feb 08 2021 Summary Groovy in Action, Second Edition is a thoroughly revised, comprehensive guide to Groovy programming. It introduces Java developers to the dynamic features that Groovy provides, and shows how to apply Groovy to a range of tasks including building new apps, integration with existing code, and DSL development. Covers Groovy 2.4. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology In the last ten years, Groovy has become an integral part of a Java developer's toolbox. Its comfortable, common-sense design, seamless integration with Java, and rich ecosystem that includes the Grails web framework, the Gradle build system, and Spock testing platform have created a large Groovy community About the Book Groovy in Action, Second Edition is the undisputed definitive reference on the Groovy language. Written by core members of the Groovy language team, this book presents Groovy like no other can—from the inside out. With relevant examples, careful explanations of Groovy's key concepts and features, and insightful coverage of how to use Groovy in-production tasks, including building new applications, integration with existing code, and DSL development, this is the only book you'll need. Updated for Groovy 2.4. Some experience with Java or another programming language is helpful. No Groovy experience is assumed. What's Inside Comprehensive coverage of Groovy 2.4 including language features, libraries, and AST transformations Dynamic, static, and extensible typing Concurrency: actors, data parallelism, and dataflow Applying Groovy: Java integration, XML, SQL, testing, and domain-specific language support Hundreds of reusable examples About the Authors Dierk König, Paul King, Guillaume Laforge, Hamlet D'Arcy, Cédric Champeau, Erik Pragt, and Jon Skeet are intimately involved in the creation and ongoing development of the Groovy language and its ecosystem. Table of Contents PART 1 THE GROOVY LANGUAGE Your way to Groovy Overture: Groovy basics Simple Groovy datatypes Collective Groovy datatypes Working with closures Groovy control structures Object orientation, Groovy style Dynamic programming with Groovy Compile-time metaprogramming and AST transformations Groovy as a static language PART 2 AROUND THE GROOVY LIBRARY Working with builders Working with the GDK Database programming with Groovy Working with XML and JSON Interacting with Web Services Integrating Groovy PART 3 APPLIED GROOVY Unit testing with Groovy Concurrent Groovy with GPars Domain-specific languages The Groovy ecosystem

Machine Learning with TensorFlow, Second Edition May 26 2022 Updated with new code, new projects, and new chapters, Machine Learning with TensorFlow, Second Edition gives readers a solid foundation in machine-learning concepts and the TensorFlow library. Summary Updated with new code, new projects, and new chapters, Machine Learning with TensorFlow, Second Edition gives readers a solid foundation in machine-learning concepts and the TensorFlow library. Written by NASA JPL Deputy CTO and Principal Data Scientist Chris Mattmann, all examples are accompanied by downloadable Jupyter Notebooks for a hands-on experience coding TensorFlow with Python. New and revised content expands coverage of core machine learning algorithms, and advancements in neural networks such as VGG-Face facial identification classifiers and deep speech classifiers. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Supercharge your data analysis with machine learning! ML algorithms automatically improve as they process data, so results get better over time. You don't have to be a mathematician to use ML: Tools like Google's TensorFlow library help with complex calculations so you can focus on getting the answers you need. About the book Machine Learning with TensorFlow, Second Edition is a fully revised guide to building machine learning models using Python and TensorFlow. You'll apply core ML concepts to real-world challenges, such as sentiment analysis, text classification, and image recognition. Hands-on examples illustrate neural network techniques for deep speech processing, facial identification, and auto-encoding with CIFAR-10. What's inside Machine Learning with TensorFlow Choosing the best ML approaches Visualizing algorithms with TensorBoard Sharing results with collaborators Running models in Docker About the reader Requires intermediate Python skills and knowledge of general algebraic concepts like vectors and matrices. Examples use the super-stable 1.15.x branch of TensorFlow and TensorFlow 2.x. About the author Chris Mattmann is the Division Manager of the Artificial Intelligence, Analytics, and Innovation Organization at NASA Jet Propulsion Lab. The first edition of this book was written by Nishant Shukla with Kenneth Fricklas. Table of Contents PART 1 - YOUR MACHINE-LEARNING RIG 1 A machine-learning odyssey 2 TensorFlow essentials PART 2 - CORE LEARNING ALGORITHMS 3 Linear regression and beyond 4 Using regression for call-center volume prediction 5 A gentle introduction to classification 6 Sentiment classification: Large movie-review dataset 7 Automatically clustering data 8 Inferring user activity from Android accelerometer data 9 Hidden Markov models 10 Part-of-speech tagging and word-sense disambiguation PART 3 - THE NEURAL NETWORK PARADIGM 11 A peek into autoencoders 12 Applying autoencoders: The CIFAR-10 image dataset 13 Reinforcement learning 14 Convolutional neural networks 15 Building a real-world CNN: VGG-Face ad VGG-Face Lite 16 Recurrent neural networks 17 LSTMs and automatic speech recognition 18 Sequence-to-sequence models for chatbots 19 Utility landscape

Learn Amazon SageMaker Nov 07 2020 Quickly build and deploy machine learning models without managing infrastructure, and improve productivity using Amazon SageMaker's capabilities such as Amazon SageMaker Studio, Autopilot, Experiments, Debugger, and Model Monitor Key FeaturesBuild, train, and deploy machine learning models quickly using Amazon SageMakerAnalyze, detect, and receive alerts relating to various business problems using machine learning algorithms and techniquesImprove productivity by training and fine-tuning machine learning models in productionBook Description Amazon SageMaker enables you to quickly build, train, and deploy machine learning (ML) models at scale, without managing any infrastructure. It helps you focus on the ML problem at hand and deploy high-quality models by removing the heavy lifting typically involved in each step of the ML process. This book is a comprehensive guide for data scientists and ML developers who want to learn the ins and outs of Amazon SageMaker. You'll understand how to use various modules of SageMaker as a single toolset to solve the challenges faced in ML. As you progress, you'll cover features such as AutoML, built-in algorithms and frameworks, and the option for writing your own code and algorithms to build ML models. Later, the book will show you how to integrate Amazon SageMaker with popular deep learning libraries such as TensorFlow and PyTorch to increase the capabilities of existing models. You'll also learn to get the models to production faster with minimum effort and at a lower cost. Finally, you'll explore how to use Amazon SageMaker Debugger to analyze, detect, and highlight problems to understand the current model state and improve model accuracy. By the end of this Amazon book, you'll be able to use Amazon SageMaker on the full spectrum of ML workflows, from experimentation, training, and monitoring to scaling, deployment, and automation. What you will learnCreate and automate end-to-end machine learning workflows on Amazon Web Services (AWS)Become well-versed with data annotation and preparation techniquesUse AutoML features to build and train machine learning models with AutoPilotCreate models using built-in algorithms and frameworks and your own codeTrain computer vision and NLP models using real-world examplesCover training techniques for scaling, model optimization, model debugging, and cost optimizationAutomate deployment tasks in a variety of configurations using SDK and several automation toolsWho this book is for This book is for software engineers, machine learning developers, data scientists, and AWS users who are new to using Amazon SageMaker and want to build high-quality machine learning models without worrying about infrastructure. Knowledge of AWS basics is required to grasp the concepts covered in this book more effectively. Some understanding of machine learning concepts and the Python programming language will also be beneficial.

Pain Free (Revised and Updated Second Edition) Jun 02 2020 Live pain free! Now fully updated and revised throughout, this million-copy bestseller will help you feel and move better. "This book is extraordinary, and I am thrilled to recommend it to anyone who's interested in dramatically increasing the quality of their physical health." —Tony Robbins With a new foreword by John Lynch, Hall of Fame NFL safety and general manager of the San Francisco 49ers Starting today, you don't have to live in pain. That is the revolutionary message of the Egoscue Method, a breakthrough system for eliminating musculoskeletal pain without drugs, surgery, or expensive physical therapy. Developed by Pete Egoscue, an internationally renowned physiologist and injury consultant to some of the most successful performers in all walks of life, the Egoscue Method has helped millions of people with an astounding success rate of over 90 percent. The Method uses a series of gentle exercises and carefully constructed stretches called "E-cises" to teach the body to return to its natural, pain-free state. Inside, you'll find detailed photographs and step-by-step instructions for dozens of E-cises specifically designed to provide quick and lasting relief of • joint discomfort, including back and neck pain; achy knees, hips, and shoulders; arthritis; and injured ankles. • muscle and soft-tissue problems, including rotator cuff injuries, tendinitis, and common foot ailments. • shooting pains, including sciatica and carpal tunnel syndrome. • and much more, including headaches, vertigo, and fatigue. With this book, you're on your way to regaining the greatest gift of all: a pain-free body!

The New Seaweed Cookbook, Second Edition Jul 04 2020 This beautifully illustrated new edition of The New Seaweed Cookbook is a must-have collection of 106 delicious recipes featuring the rich and deeply nourishing flavors of sea vegetables of all kinds. Known for its healing properties in detoxifying the body and reducing inflammation, seaweed is the most abundant food on Earth—a nutrient-dense super food with a long history of medicinal uses. Author and chef Crystal June Maderia provides exciting options—such as Hijiki Caviar; Roast Lamb with Mint, Arame, and Kumquat Jam; Maple Toffee with Black Cumin—for vegans and meat-eaters and everyone in between. Her recipes are formulated to complement healing diets—including those suggested for arthritis, autism, fibromyalgia, celiac disease, and dairy and wheat intolerances—and are free from ingredients commonly identified with sensitivities, intolerances, and allergens. With easy-to-follow instructions and easy-to-find ingredients, Maderia's recipes will awaken taste buds with their unique flavors of sea vegetables. Rich dark greens, purples, and blacks of a variety of sea vegetables accentuate other flavors while providing concentrated nutritional value and a diverse range of minerals essential to achieving and maintaining optimal health. B-vitamin folate, magnesium, iron, calcium, riboflavin, pantothenic acid, iodine, and lignans deliver nourishment to the hormonal, lymphatic, urinary, circulatory, and nervous systems while soothing the digestive tract, dissoving fatty build-ups in the body, and protecting cells from cancer and radiation. Get your fill of the ocean's leafy greens and bring the serious umami of wakame, nori, and kelp into your cooking repertoire. From the Trade Paperback edition.

<u>Educational Times</u> Jul 24 2019

HVAC Design Sourcebook, Second Edition Mar 12 2021 Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. The definitive guide to HVAC design—thoroughly revised for the latest technologies This fully updated, hands-on guide covers the process of designing a HVAC systems and concisely explains the code requirements and standards for each component, helping you to design safe and efficient HVAC systems. The book illustrates each step in the design process through photographs, drawings, and discussions of pertinent considerations for different types of components and systems. Written by a recognized expert in the field, HVAC Design Sourcebook, Second Edition brings together all of the information needed to understand each type of HVAC component and how they interact as a whole. You will explore complex heating, cooling, and ventilation systems and the codes and standards that govern their use and installation. This new edition has been completely refreshed to align with current industry standards and practices. A brand-new chapter takes a step-by-step look at the design of a real-world HVAC project. • Clearly explains HVAC requirements from the 2018 IMC, 2017 NEC, NFPA 70, and ASHRAE • Highly illustrated with photos and drawings that show proper configurations • Written by an HVAC expert and experienced author

Deep Learning Mar 24 2022 An introduction to a broad range of topics in deep learning, covering mathematical and conceptual background, deep learning techniques used in industry, and research perspectives. "Written by three experts in the field, Deep Learning is the only comprehensive book on the subject." —Elon Musk, cochair of OpenAI; cofounder and CEO of Tesla and SpaceX Deep learning is a form of machine learning that enables computers to learn from experience and understand the world in terms of a hierarchy of concepts. Because the computer gathers knowledge from experience, there is no need for a human computer operator to formally specify all the knowledge that the computer needs. The hierarchy of concepts allows the computer to learn complicated concepts by building them out of simpler ones; a graph of these hierarchies would be many layers deep. This book introduces a broad range of topics in deep learning. The text offers mathematical and conceptual background, covering relevant concepts in linear algebra, probability theory and information theory, numerical computation, and machine learning. It describes deep learning techniques used by practitioners in industry, including deep feedforward networks, regularization, optimization algorithms, convolutional networks, sequence modeling, and practical methodology; and it surveys such applications as natural language processing, speech recognition, computer vision, online recommendation systems, bioinformatics, and videogames. Finally, the book offers research perspectives, covering such theoretical topics as linear factor models, autoencoders,

representation learning, structured probabilistic models, Monte Carlo methods, the partition function, approximate inference, and deep generative models. Deep Learning can be used by undergraduate or graduate students planning careers in either industry or research, and by software engineers who want to begin using deep learning in their products or platforms. A website offers supplementary material for both readers and instructors.

Radio Free Dixie Dec 29 2019 This book tells the remarkable story of Robert F. Williams--one of the most influential black activists of the generation that toppled Jim Crow and forever altered the arc of American history. In the late 1950s, as president of the Monroe, North Carolina, branch of the NAACP, Williams and his followers used machine guns, dynamite, and Molotov cocktails to confront Klan terrorists. Advocating "armed self-reliance" by blacks, Williams challenged not only white supremacists but also Martin Luther King Jr. and the civil rights establishment. Forced to flee during the 1960s to Cuba--where he broadcast "Radio Free Dixie," a program of black politics and music that could be heard as far away as Los Angeles and New York City--and then China, Williams remained a controversial figure for the rest of his life. Historians have customarily portrayed the civil rights movement as a nonviolent call on America's conscience--and the subsequent rise of Black Power as a violent repudiation of the civil rights dream. But Radio Free Dixie reveals that both movements grew out of the same soil, confronted the same predicaments, and reflected the same quest for African American freedom. As Robert Williams's story demonstrates, independent black political action, black cultural pride, and armed self-reliance operated in the South in tension and in tandem with legal efforts and nonviolent protest.

Deep Learning with Python Aug 29 2022 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 Fran ois 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 Fran ois 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 Fran ois 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

Interpretable Machine Learning Oct 19 2021 This book is about making machine learning models and their decisions interpretable. After exploring the concepts of interpretability, you will learn about simple, interpretable models such as decision trees, decision rules and linear regression. Later chapters focus on general model-agnostic methods for interpreting black box models like feature importance and accumulated local effects and explaining individual predictions with Shapley values and LIME. All interpretation methods are explained in depth and discussed critically. How do they work under the hood? What are their strengths and weaknesses? How can their outputs be interpreted? This book will enable you to select and correctly apply the interpretation method that is most suitable for your machine learning project.

Usagi Yojimbo Saga Volume 1 (Second Edition) Sep 25 2019 Celebrate Stan Sakai's beloved rabbit ronin with the Second Edition collections of the comic saga featuring brand new original cover art by Stan Sakai! Follow Miyamoto Usagi in his epic trek along the warrior's path, beginning with over 600 pages of Usagi's essential adventures. In this first volume, Usagi protects a village from a band of assassins, reluctantly engages in a duel for blood money, hunts a gangster who has stolen his swords, and more! Collects Usagi Yojimbo Volume 2 #1-#16 and Volume 3 #1-#6!

Instagram Power: Build Your Brand and Reach More Customers with the Power of Pictures Feb 29 2020 CREATE A PICTURE-PERFECT Instagram MARKETING STRATEGY If you're not using Instagram to your advantage, you have to start now. Instagram is the hottest social media site today: Two years after its launch, the number of its daily mobile users surpassed that of Twitter. Then Facebook purchased it for a billion dollars--and it took the world by storm. Instagram Power provides everything you need to grab customers on the world's most popular photo-sharing site. This guide covers it all--from setting up an account to promoting a brand to integrating the photo-sharing app into an existing marketing strategy. Learn how to: CREATE THE MOST EFFECTIVE IMAGE FOR YOUR NEEDS IDENTIFY PROSPECTIVE CUSTOMERS WITH HASHTAGS DEVELOP A MARKETING PLAN TAILORED FOR THE SITE LAUNCH A NEW PRODUCT CREATE A MINI SOCIAL NETWORK OF CUSTOMERS ON INSTAGRAM TRACK AND MEASURE YOUR EFFORTS

Fundamentals of Astrodynamics Dec 21 2021 Widely known and used throughout the astrodynamics and aerospace engineering communities, this teaching text was developed at the U.S. Air Force Academy. Completely revised and updated 2013 edition.

Python for Software Design Jun 26 2022 Python for Software Design is a concise introduction to software design using the Python programming language. The focus is on the programming process, with special emphasis on debugging. The book includes a wide range of exercises, from short examples to substantial projects, so that students have ample opportunity to practice each new concept.

Impact Evaluation in Practice, Second Edition Aug 17 2021 The second edition of the Impact Evaluation in Practice handbook is a comprehensive and accessible introduction to impact evaluation for policy makers and development practitioners. First published in 2011, it has been used widely across the development and academic communities. The book incorporates real-world examples to present practical guidelines for designing and implementing impact evaluations. Readers will gain an understanding of impact evaluations and the best ways to use them to design evidence-based policies and programs. The updated version covers the newest techniques for evaluating programs and includes state-of-the art implementation advice, as well as an expanded set of examples and case studies that draw on recent development challenges. It also includes new material on research ethics and partnerships to conduct impact evaluation. The handbook is divided into four sections: Part One discusses what to evaluate and why; Part Two presents the main impact evaluation methods; Part Three addresses how to manage impact evaluations; Part Four reviews impact evaluation sampling and data collection. Case studies illustrate different applications of impact evaluations. The book links to complementary instructional material available online, including an applied case as well as questions and answers. The updated second edition will be a valuable resource for the international development community, universities, and policy makers looking to build better evidence around what works in development.

Interpersonal Psychotherapy for Depressed Adolescents Jun 22 2019 Grounded in extensive research and clinical experience, this manual provides a complete guide to interpersonal psychotherapy for depressed adolescents (IPT-A). IPT-A is an evidence-based brief intervention designed to meet the specific developmental needs of teenagers. Clinicians learn how to educate adolescents and their families about depression, work with associated relationship difficulties, and help clients manage their symptoms while developing more effective communication and interpersonal problem-solving skills. The book includes illustrative clinical vignettes, an extended case example, and information on the model's conceptual and empirical underpinnings. Helpful session checklists and sample assessment tools are featured in the appendices.

Think Python Apr 24 2022 If you want to learn how to program, working with Python is an excellent way to start. This hands-on guide takes you through the language a step at a time, beginning with basic programming concepts before moving on to functions, recursion, data structures, and object-oriented design. This second edition and its supporting code have been updated for Python 3. Through exercises in each chapter, you'll try out programming concepts as you learn them. Think Python is ideal for students at the high school or college level, as well as self-learners, home-schooled students, and professionals who need to learn programming basics. Beginners just getting their feet wet will learn how to start with Python in a browser. Start with the basics, including language syntax and semantics Get a clear definition of each programming concept Learn about values, variables, statements, functions, and data structures in a logical progression Discover how to work with files and databases Understand objects, methods, and object-oriented programming Use debugging techniques to fix syntax, runtime, and semantic errors Explore interface design, data structures, and GUI-based programs through case studies

Introduction to Machine Learning Jan 28 2020 Introduction -- Supervised learning -- Bayesian decision theory -- Parametric methods -- Multivariate methods -- Dimensionality reduction -- Clustering -- Nonparametric methods -- Decision trees -- Linear discrimination -- Multilayer perceptrons -- Local models -- Kernel machines -- Graphical models -- Brief contents -- Hidden markov models -- Bayesian estimation -- Combining multiple learners -- Reinforcement learning -- Design and analysis of machine learning experiments.

Ecological Economics, Second Edition Jul 16 2021 In its first edition, this book helped to define the emerging field of ecological economics. This new edition surveys the field today. It incorporates all of the latest research findings and grounds economic inquiry in a more robust understanding of human needs and behavior. Humans and ecological systems, it argues, are inextricably bound together in complex and long-misunderstood ways. According to ecological economists, conventional economics does not reflect adequately the value of essential factors like clean air and water, species diversity, and social and generational equity. By excluding biophysical and social systems from their analyses, many conventional economists have overlooked problems of the increasing scale of human impacts and the inequitable distribution of resources. This introductory-level textbook is designed specifically to address this significant flaw in economic thought. The book describes a relatively new "transdiscipline" that incorporates insights from the biological, physical, and social sciences. It provides students with a foundation in traditional neoclassical economic thought, but places that foundation within an interdisciplinary framework that embraces the linkages among economic growth, environmental degradation, and social inequity. In doing so, it presents a revolutionary way of viewing the world. The second edition of Ecological Economics provides a clear, readable, and easy-to-understand overview of a field of study that continues to grow in importance. It remains the only stand-alone textbook that offers a complete explanation of theory and practice in the discipline.