A Hands On Introduction To Using Python In The Atmospheric

Penetration testers simulate cyber attacks to find security weaknesses in networks, operating systems, and applications. Information security experts worldwide use penetration techniques to evaluate enterprise defenses. In Penetration Testing, security expert, researcher, and trainer Georgia Weidman introduces you to the core skills and techniques that every pentester needs. Using a virtual machine–based lab that includes Kali Linux and vulnerable operating systems, you'll run through a series of practical lessons with tools like Wireshark, Nmap, and Burp Suite. As you follow along with the labs and launch attacks, you'll experience the key stages of an actual assessment—including information gathering, finding exploitable vulnerabilities, gaining access to systems, post exploitation, and more. Learn how to: –Crack passwords and wireless network keys with brute-forcing and wordlists –Test web applications for vulnerabilities –Use the Metasploit Framework to launch exploits and write your own Metasploit modules –Automate social-engineering attacks –Bypass antivirus software –Turn access to one machine into total control of the enterprise in the post exploitation phase You'll even explore writing your own exploits. Then it's on to mobile

hacking—Weidman's particular area of research—with her tool, the Smartphone Pentest Framework. With its collection of hands-on lessons that cover key tools and strategies, Penetration Testing is the introduction that every aspiring hacker needs. This book is a mini-course for researchers in the atmospheric and oceanic sciences. "We assume readers will already know the basics of programming... in some other language." - Back cover.

Long-awaited revision of this best-selling book on the Arduino electronics platform (35,000+ copies sold). Readers gain an in-depth understanding of the Arduino -- beyond just making simple projects. The Arduino is an affordable, flexible, open source microcontroller platform designed to make it easy for hobbyists to use electronics in homemade projects. With an almost unlimited range of input and output add-ons, sensors, indicators, displays, motors, and more, the Arduino offers you countless ways to create devices that interact with the world around you. This second edition of Arduino Workshop has been updated for the latest version of Arduino IDE. It begins with an overview of the Arduino system and then moves on to coverage of various electronic components and concepts, including revised content reflecting advances in displays, touchscreens, sensors, motors, GPS, and wireless technology. You'll learn about new hardware and find updated

projects that cover areas like touchscreens and LED displays, robotics, using sensors with wireless data links, and even controlling projects remotely through a cell phone. Brand new chapters include coverage of MAX7219-based LED numeric displays, LED matrix modules, and creating your own Arduino libraries. Throughout the book, hands-on projects reinforce what you've learned and show you how to apply that knowledge. As your understanding grows, the projects increase in complexity and sophistication. Along the way, you'll learn valuable lessons in coding, including how to create your own Arduino libraries to efficiently reuse code across multiple projects. Among the book's 65 projects are useful devices like: • A digital thermometer that charts temperature changes on an LCD • A GPS logger that records data from your travels, which can be displayed on Google Maps • A handy tester that lets you check the voltage of any single-cell battery • A keypad-controlled lock that requires a secret code to open You'll also learn to build Arduino toys and games like: • An electronic version of the classic six-sided die • A binary quiz game that challenges your number conversion skills • A motorized remote control car with collision detection to keep it from crashing Arduino Workshop will teach you the tricks and design principles of a master craftsman. Whatever your skill level, you'll have fun as you learn to harness the power of the Arduino for your own

DIY projects.

A hands-on guide to hacking computer systems from the ground up, from capturing traffic to crafting sneaky, successful trojans. A crash course in modern hacking techniques, Ethical Hacking is already being used to prepare the next generation of offensive security experts. In its many hands-on labs, you'll explore crucial skills for any aspiring penetration tester, security researcher, or malware analyst. You'll begin with the basics: capturing a victim's network traffic with an ARP spoofing attack and then viewing it in Wireshark. From there, you'll deploy reverse shells that let you remotely run commands on a victim's computer, encrypt files by writing your own ransomware in Python, and fake emails like the ones used in phishing attacks. In advanced chapters, you'll learn how to fuzz for new vulnerabilities, craft trojans and rootkits, exploit websites with SQL injection, and escalate your privileges to extract credentials, which you'll use to traverse a private network. You'll work with a wide range of professional penetration testing tools—and learn to write your own tools in Python—as you practice tasks like: • Deploying the Metasploit framework's reverse shells and embedding them in innocent-seeming files • Capturing passwords in a corporate Windows network using Mimikatz • Scanning (almost) every device on the internet to find potential victims • Installing Linux rootkits that

modify a victim's operating system • Performing advanced Cross-Site Scripting (XSS) attacks that execute sophisticated JavaScript payloads Along the way, you'll gain a foundation in the relevant computing technologies. Discover how advanced fuzzers work behind the scenes, learn how internet traffic gets encrypted, explore the inner mechanisms of nation-state malware like Drovorub, and much more. Developed with feedback from cybersecurity students, Ethical Hacking addresses contemporary issues in the field not often covered in other books and will prepare you for a career in penetration testing. Most importantly, you'll be able to think like an ethical hacker?: someone who can carefully analyze systems and creatively gain access to them. Have you always wanted to learn computer programming but you're worried it will take too long? Would you like to automate something simple with your PC but you don't know how to do it? Or maybe you know other programming languages and are interested in learning Python quickly? As a beginner you might think that programming is difficult and the possibility to give up before mastering it could be high... So, if you have a project to develop you could think on hiring a programmer to shorten the time. This may seem like a good idea but it is certainly very expensive. Otherwise you could waste your time pursuing tutorials online. The best solution is to follow a complete programming manual with hands-

on projects and practical exercises. What you will find inside and a quick overview of the main topics: ? Why Python is considered the best programming language for a beginner ? The most common mistakes to avoid when you start programming ? BOOK 1: PYTHON PROGRAMMING - The 7 built-in functions to make your life easier while coding a software program - The program you need to develop your first own application ? BOOK 2: PYTHON MACHINE LEARNING - The algorithms that will make your life easier - The 2 libraries you need implementing to develop the desired ML models ? BOOK 3: PYTHON DATA SCIENCE - 3 actions required to gain insights from big data - A simple method to implement predictive analytics ? Some projects to write Python codes in less than a week ? Quizzes at the end of every chapter to review immediately what you've learned Why is this book different? Computer Programming Academy structured these guides as a course with seven chapters for seven days with special exercises for each section.This protocol, tested on both beginners and people who were already familiar with coding, takes advantage of the principle of diving, concentrating learning in one week. The result? The content of the course was learned faster and remembered longer. Even if you're completely new to programming in 2020 or you are just looking to widen your skills as programmer this book is perfect

for you. Now's the best time to begin learning Python... click the "BUY NOW" button and get started!

An introductory textbook offering a low barrier entry to data science; the hands-on approach will appeal to students from a range of disciplines.

Introduction to Data Science: Data Analysis and Prediction Algorithms with R introduces concepts and skills that can help you tackle real-world data analysis challenges. It covers concepts from probability, statistical inference, linear regression, and machine learning. It also helps you develop skills such as R programming, data wrangling, data visualization, predictive algorithm building, file organization with UNIX/Linux shell, version control with Git and GitHub, and reproducible document preparation. This book is a textbook for a first course in data science. No previous knowledge of R is necessary, although some experience with programming may be helpful. The book is divided into six parts: R, data visualization, statistics with R, data wrangling, machine learning, and productivity tools. Each part has several chapters meant to be presented as one lecture. The author uses motivating case studies that realistically mimic a data scientist's experience. He starts by asking specific questions and answers these through data analysis so concepts are learned as a means to answering the questions. Examples of the case studies

included are: US murder rates by state, self-reported student heights, trends in world health and economics, the impact of vaccines on infectious disease rates, the financial crisis of 2007-2008, election forecasting, building a baseball team, image processing of hand-written digits, and movie recommendation systems. The statistical concepts used to answer the case study questions are only briefly introduced, so complementing with a probability and statistics textbook is highly recommended for in-depth understanding of these concepts. If you read and understand the chapters and complete the exercises, you will be prepared to learn the more advanced concepts and skills needed to become an expert.

A step by step guide that will help you learn the Java programming language KEY FEATURES ?Get familiar with the features in Java 8 And Java 9 ?Understand the working of various Java APIs ?Learn Modular Programming with Java 9 ?Learn to use features such as Lambda, Time API, and Stream API. ?Learn how to access databases from a Java application DESCRIPTION 100+ Solutions in Java is an easy-to-understand step-by-step guide that helps you develop applications using Java 8 and Java 9. It is for everyone, from beginners to professionals, who wish to begin development in Java. The content is designed as per increasing complexity and is explained in detail with appropriate

examples. This book follows a practical approach by providing ample examples and assignments for you to test your understanding of each concept. You will also get familiar with the important features introduced in Java 10. This book is a "beginner's guide" that will help you upskill your knowledge in Java. By the end of the book, you will know the different features introduced in Java over the years and will learn to implement these features to develop real-world applications. WHAT YOU WILL LEARN ?Work with the newly introduced features in Java 8 And Java 9 ?Get to know in-depth about the Java Stream API ?Learn how to work with Java regular expressions ?Get an overview of Inheritance and Interfaces in Java ?Get familiar with Design Patterns in Java WHO THIS BOOK IS FOR This book is for Developers and Technical Specialists who are interested in learning Java. Prior knowledge of programming languages such as C, C++, or Python and any DBMS such as SQL Server, MySQL will be an added advantage. TABLE OF CONTENTS 1. Introduction to Java 2. Java Programming Constructs 3. Java Application Components 4. Java Reference Types 5. Subclasses and Interfaces 6. Exceptions and Regular Expressions 7. Collections and Stream API 8. Generics and Time API 9. File Manipulation in Java 10. Threads and JDBC 11. Design Patterns and I18N 12. More about JDK 8, 9 and 10

Pre-service and in-service teachers alike benefit from the
experience of renowned authors Charles Temple, Miriam
Martinez, and Junko Yokota as they share a wealth of
richly illustrated, practical ideas for sharing literature with
children. The authors focus on creating an understanding
of how literature works and how children respond to
literature, they provide a wide range of good books to
use with children, and they suggest ways to guide
children into books and help them enjoy the experience.
Dozens of new authors and books have been added to
this new edition of Children's books in Children's Hands:
An Introduction to Their Literature, 4e, making it
interesting and current, and the continued emphasis on
cultural diversity includes a new chapter on international
books.
A Hands-On Introduction to Data ScienceCambridge
University Press
Music Education in Your Hands is a textbook for the
introductory course in Music Education. Written for future
classroom music teachers, the book provides an
overview of the music education system , illuminating the
many topics that music educators need to know,
including technology, teaching methods, curricular
evolution, legislation, and a range of societal needs from
cultural diversity to evolving tastes in music. It
encompasses a broad picture of the profession, and how
the future of music education rests in the hands of
today's student teachers as they learn how to become
advocates for music in our schools. FEATURES A
balance of sound historical foundations with recent
research and thinking; Coursework that is appropriate in

level and length for a one semester introductory course; Actual dialogue between undergraduate music education majors and teachers, illustrating pertinent issues teachers must face; An emphasis on opportunities in the greater community beyond the walls of the school that music teachers should be familiar with; Suggested topics for activities and critical thinking for every chapter; A companion web site including student and instructor resources

The Arduino is a cheap, flexible, open source microcontroller platform designed to make it easy for hobbyists to use electronics in homemade projects. With an almost unlimited range of input and output add-ons, sensors, indicators, displays, motors, and more, the Arduino offers you countless ways to create devices that interact with the world around you. In Arduino Workshop, you'll learn how these add-ons work and how to integrate them into your own projects. You'll start off with an overview of the Arduino system but quickly move on to coverage of various electronic components and concepts. Hands-on projects throughout the book reinforce what you've learned and show you how to apply that knowledge. As your understanding grows, the projects increase in complexity and sophistication. Among the book's 65 projects are useful devices like: – A digital thermometer that charts temperature changes on an LCD –A GPS logger that records data from your travels, which can be displayed on Google Maps – A handy tester that lets you check the voltage of any single-cell battery – A keypad-controlled lock that requires a secret code to open You'll also learn to build Arduino

toys and games like: – An electronic version of the classic six-sided die – A binary quiz game that challenges your number conversion skills – A motorized remote control tank with collision detection to keep it from crashing Arduino Workshop will teach you the tricks and design principles of a master craftsman. Whatever your skill level, you'll have fun as you learn to harness the power of the Arduino for your own DIY projects. Uses the Arduino Uno board

"Introduction to LabView programming for scientists and engineers"--

This friendly and accessible guide to AI theory and programming in Python requires no maths or data science background. Key Features Roll up your sleeves and start programming AI models No math, data science, or machine learning background required Packed with hands-on examples, illustrations, and clear step-by-step instructions 5 hands-on working projects put ideas into action and show step-by-step how to build intelligent software Book Description AI is changing the world – and with this book, anyone can start building intelligent software! Through his best-selling video courses, Hadelin de Ponteves has taught hundreds of thousands of people to write AI software. Now, for the first time, his hands-on, energetic approach is available as a book. Taking a graduated approach that starts with the basics before easing readers into more complicated formulas and notation, Hadelin helps you understand what you really need to build AI systems with reinforcement learning and deep learning. Five full working projects put the ideas into action, showing step-by-step how to build

intelligent software using the best and easiest tools for AI
programming: Google Colab Python TensorFlow Keras
PyTorch AI Crash Course teaches everyone to build an
AI to work in their applications. Once you've read this
book, you're only limited by your imagination. What you
will learn Master the key skills of deep learning,
reinforcement learning, and deep reinforcement learning
Understand Q-learning and deep Q-learning Learn from
friendly, plain English explanations and practical
activities Build fun projects, including a virtual-self-driving
car Use AI to solve real-world business problems and
win classic video games Build an intelligent, virtual robot
warehouse worker Who this book is for If you want to
add AI to your skillset, this book is for you. It doesn't
require data science or machine learning knowledge.
Just maths basics (high school level).
The mathematics of ancient Egypt was fundamentally
different from our math today. Contrary to what people
might think, it wasn't a primitive forerunner of modern
mathematics. In fact, it can't be understood using our
current computational methods. Count Like an Egyptian
provides a fun, hands-on introduction to the intuitive and
often-surprising art of ancient Egyptian math. David
Reimer guides you step-by-step through addition,
subtraction, multiplication, and more. He even shows you
how fractions and decimals may have been
calculated—they technically didn't exist in the land of the
pharaohs. You'll be counting like an Egyptian in no time,
and along the way you'll learn firsthand how
mathematics is an expression of the culture that uses it,
and why there's more to math than rote memorization

and bewildering abstraction. Reimer takes you on a lively and entertaining tour of the ancient Egyptian world, providing rich historical details and amusing anecdotes as he presents a host of mathematical problems drawn from different eras of the Egyptian past. Each of these problems is like a tantalizing puzzle, often with a beautiful and elegant solution. As you solve them, you'll be immersed in many facets of Egyptian life, from hieroglyphs and pyramid building to agriculture, religion, and even bread baking and beer brewing. Fully illustrated in color throughout, Count Like an Egyptian also teaches you some Babylonian computation—the precursor to our modern system—and compares ancient Egyptian mathematics to today's math, letting you decide for yourself which is better.

Python Crash Course is a fast-paced, thorough introduction to Python that will have you writing programs, solving problems, and making things that work in no time. In the first half of the book, you'll learn about basic programming concepts, such as lists, dictionaries, classes, and loops, and practice writing clean and readable code with exercises for each topic. You'll also learn how to make your programs interactive and how to test your code safely before adding it to a project. In the second half of the book, you'll put your new knowledge into practice with three substantial projects: a Space Invaders–inspired arcade game, data visualizations with Python's super-handy libraries, and a simple web app you can deploy online. As you work through Python Crash Course you'll learn how to: –Use powerful Python libraries and tools, including matplotlib, NumPy, and

Pygal –Make 2D games that respond to keypresses and mouse clicks, and that grow more difficult as the game progresses –Work with data to generate interactive visualizations –Create and customize Web apps and deploy them safely online –Deal with mistakes and errors so you can solve your own programming problems If you've been thinking seriously about digging into programming, Python Crash Course will get you up to speed and have you writing real programs fast. Why wait any longer? Start your engines and code! Uses Python 2 and 3

A Hands-On Introduction to Forensic Science, Second Edition continues in the tradition of the first edition taking a wholly unique approach to teaching forensic science. Each chapter begins with a brief, fictional narrative that runs through the entire book; it is a crime fiction narrative that describes the interaction of a veteran homicide detective teamed with a criminalist and the journey they take together to solve a missing persons case. Step-by-step the book progressive reveals pieces of information about the crime, followed by the more traditional presentation of scientific principles and concepts on a given forensic topics. Each chapter concludes with a series of user friendly, cost effective, hands-on lab activities that provide the students the skills necessary to analyze the evidence presented in each chapters. The new edition is completely updated with special focus on new DNA techniques

in DNA sequencing, DNA phenotyping, and bioinformatics. Students will engage in solving a missing persons case by documenting the crime scene, analyzing physical evidence in the lab, and presenting findings in a mock trial setting. Within the chapters themselves, students learn about the technical, forensic concepts presented within each of the opening stories segments. The book culminates with having the students playing to role of the main characters in a trial—attorneys, scientific experts, suspect, judge, bailiff, and jury—to present and judge the evidence in a mock trial setting. The mock trial will mimic what takes place in a real courtroom, and the jury of swill be asked to deliberate on the evidence presented to determine the guilt or innocence of the suspect.

Processing opened up the world of programming to artists, designers, educators, and beginners. The Processing.py Python implementation of Processing reinterprets it for today's web. This short book gently introduces the core concepts of computer programming and working with Processing. Written by the co-founders of the Processing project, Reas and Fry, along with co-author Allison Parrish, Getting Started with Processing.py is your fast track to using Python's Processing mode.

Java is the world's most popular programming language, but it's known for having a steep learning curve. Learn Java the Easy Way takes the chore out

of learning Java with hands-on projects that will get you building real, functioning apps right away. You'll start by familiarizing yourself with JShell, Java's interactive command line shell that allows programmers to run single lines of code and get immediate feedback. Then, you'll create a guessing game, a secret message encoder, and a multitouch bubble-drawing app for both desktop and mobile devices using Eclipse, an industry-standard IDE, and Android Studio, the development environment for making Android apps. As you build these apps, you'll learn how to: -Perform calculations, manipulate text strings, and generate random colors -Use conditions, loops, and methods to make your programs responsive and concise -Create functions to reuse code and save time -Build graphical user interface (GUI) elements, including buttons, menus, pop-ups, and sliders -Take advantage of Eclipse and Android Studio features to debug your code and find, fix, and prevent common mistakes If you've been thinking about learning Java, Learn Java the Easy Way will bring you up to speed in no time. This brand-new textbook introduces medical students, junior doctors, medical educators and allied health professionals to the vital skills of diagnostic strategy and clinical reasoning, both essential components of becoming an effective clinician. Taking the examination of the hands as a springboard – often the initial step in physical

examination and from which a wealth of information can be gleaned – through real-life clinical cases readers are encouraged to refine their powers of observation and decision-making strategy. Key features: • Encourages a conscious approach to clinical reasoning – 'see' rather than just 'look' • Develops an understanding of why all clinicians can be responsible for diagnostic mistakes and how, with a raised awareness, they can work towards avoiding error • Outlines approaches that can be used when taking a history and when examining patients in any clinical setting • Bundled e-book for use 'on the go' while the companion website provides additional materials for students and lecturers including self-assessment questions and teaching guidance Outlining the process of formulating and refining an initial diagnosis, in using this book the medical student or junior doctor will develop a critical self-awareness of the strategies they employ in assessing patients, learn how to improve and enhance their skills, and feel enabled to craft an appropriate management plan.

The second edition of the best-selling Python book in the world (over 1 million copies sold!). A fast-paced, no-nonsense guide to programming in Python. Updated and thoroughly revised to reflect the latest in Python code and practices. Python Crash Course is the world's best-selling guide to the Python programming language. This fast-paced, thorough

introduction to programming with Python will have you writing programs, solving problems, and making things that work in no time. In the first half of the book, you'll learn basic programming concepts, such as variables, lists, classes, and loops, and practice writing clean code with exercises for each topic. You'll also learn how to make your programs interactive and test your code safely before adding it to a project. In the second half, you'll put your new knowledge into practice with three substantial projects: a Space Invaders-inspired arcade game, a set of data visualizations with Python's handy libraries, and a simple web app you can deploy online. As you work through the book, you'll learn how to: • Use powerful Python libraries and tools, including Pygame, Matplotlib, Plotly, and Django • Make 2D games that respond to keypresses and mouse clicks, and that increase in difficulty • Use data to generate interactive visualizations • Create and customize web apps and deploy them safely online • Deal with mistakes and errors so you can solve your own programming problems If you've been thinking about digging into programming, Python Crash Course will get you writing real programs fast. Why wait any longer? Start your engines and code!
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.
Topology optimization is an exciting and powerful

method for generating insightful, high-performance designs. The objectives of this text are to introduce the readers to topology optimization terminology, illustrate various sensitivity analysis techniques, and, most importantly, provide numerous examples and case-studies to illustrate the merits of topology optimization. The primary audience include senior undergraduate students, first year graduate students and practicing engineers. No prior background in topology optimization is assumed. However, a working knowledge of finite element analysis (FEA) is helpful. Pareto, a topology optimization software developed at the University of Wisconsin-Madison, is used throughout the text to illustrate the main concepts. However, the reader could potentially use other topology optimization software capable of handling the class of problems posed in this text. Grasp the fundamentals of Artificial Intelligence and build your own intelligent systems with ease Key Features Enter the world of AI with the help of solid concepts and real-world use cases Explore AI components to build real-world automated intelligence Become well versed with machine learning and deep learning concepts Book Description Virtual Assistants, such as Alexa and Siri, process our requests, Google's cars have started to read addresses, and Amazon's prices and Netflix's recommended videos are decided by AI. Artificial Intelligence is one of the most exciting

technologies and is becoming increasingly significant in the modern world. Hands-On Artificial Intelligence for Beginners will teach you what Artificial Intelligence is and how to design and build intelligent applications. This book will teach you to harness packages such as TensorFlow in order to create powerful AI systems. You will begin with reviewing the recent changes in AI and learning how artificial neural networks (ANNs) have enabled more intelligent AI. You'll explore feedforward, recurrent, convolutional, and generative neural networks (FFNNs, RNNs, CNNs, and GNNs), as well as reinforcement learning methods. In the concluding chapters, you'll learn how to implement these methods for a variety of tasks, such as generating text for chatbots, and playing board and video games. By the end of this book, you will be able to understand exactly what you need to consider when optimizing ANNs and how to deploy and maintain AI applications. What you will learn Use TensorFlow packages to create AI systems Build feedforward, convolutional, and recurrent neural networks Implement generative models for text generation Build reinforcement learning algorithms to play games Assemble RNNs, CNNs, and decoders to create an intelligent assistant Utilize RNNs to predict stock market behavior Create and scale training pipelines and deployment architectures for AI systems Who this book is for This book is designed

for beginners in AI, aspiring AI developers, as well as machine learning enthusiasts with an interest in leveraging various algorithms to build powerful AI applications.

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

Software developers who want to try out deep learning as a practical solution to a particular problem. Software developers in a data science team who want to take deep learning models developed by data scientists to production.

"It is the contention of the author that the major events of the past, the wars, the depressions and the revolutions, have been planned years in advance by an international conspiracy."--Page 4 of cover.

One failing of many forensic science textbooks is the isolation of chapters into compartmentalized units. This format prevents students from understanding the connection between material learned in previous chapters with that of the current chapter. Using a unique format, A Hands-On Introduction to Forensic Science: Cracking the Case approaches the topic of forensic science from a real-life perspective in a way that these vital connections are encouraged and established. The book utilizes an ongoing fictional narrative throughout, entertaining students as it provides hands-on learning in order to "crack the case." As two investigators try to solve a missing persons case, each succeeding chapter reveals new characters, new information, and new physical evidence to be processed. A full range of topics are covered, including processing the crime scene, lifting prints, trace and blood evidence, DNA and mtDNA sequencing, ballistics, skeletal remains, and court testimony. Following the storyline, students are introduced to the appropriate science necessary to process the physical evidence, including math, physics, chemistry, and biology. The final element of each

chapter includes a series of cost-effective, field-tested lab activities that train students in processing, analyzing, and documenting the physical evidence revealed in the narrative. Practical and realistic in its approach, this book enables students to understand how forensic science operates in the real world.

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

computer networks are inherently vulnerable to attack,
teaching the student how to apply hacking skills to
uncover vulnerabilities We cover topics of breaching a
company from the external network perimeter, hacking
internal enterprise systems and web application
vulnerabilities. Delving into the basics of exploitation with
real-world practical examples, you won't find any
hypothetical academic only attacks here. From start to
finish this book will take the student through the steps
necessary to breach an organization to improve its
security. Written by world-renowned cybersecurity
experts and educators, Hands-On Hacking teaches entry-
level professionals seeking to learn ethical hacking
techniques. If you are looking to understand penetration
testing and ethical hacking, this book takes you from
basic methods to advanced techniques in a structured
learning format.
Through a series of recent breakthroughs, deep learning
has boosted the entire field of machine learning. Now,
even programmers who know close to nothing about this
technology can use simple, efficient tools to implement
programs capable of learning from data. This practical
book shows you how. By using concrete examples,
minimal theory, and two production-ready Python
frameworks—Scikit-Learn and TensorFlow—author
Aurélien Géron helps you gain an intuitive understanding
of the concepts and tools for building intelligent systems.
You'll learn a range of techniques, starting with simple
linear regression and progressing to deep neural
networks. With exercises in each chapter to help you
apply what you've learned, all you need is programming

experience to get started. Explore the machine learning landscape, particularly neural nets Use Scikit-Learn to track an example machine-learning project end-to-end Explore several training models, including support vector machines, decision trees, random forests, and ensemble methods Use the TensorFlow library to build and train neural nets Dive into neural net architectures, including convolutional nets, recurrent nets, and deep reinforcement learning Learn techniques for training and scaling deep neural nets

Black & white version.Developed specifically for courses using Capsim's Foundation(r) business simulation, this textbook provides the groundwork for your students to build a complete understanding of business principles, including:- basic business management- marketing-research & development- production- finance-understanding market forcesActual case studies from some of today's top companies illustrate key concepts and current business issues. The textbook guides students through applying that knowledge in a risk-free environment using the Foundation interactive simulation. Coupled together, the two provide an engaging, effective, and memorable learning experience.

Electronic Prepress: A Hands on Introduction brings the power of the desktop to your workspace. In this one volume you'll learn the basics of scanning, image manipulation, page layout and more.

Provides an innovative hands-on introduction to techniques for specifying the behaviour of software components. It is primarily intended for use as a text book for a course in the 2nd or 3rd year of Computer

Science and Computer Engineering programs, but it is also suitable for self-study. Using this book will help the reader improve programming skills and gain a sound foundation and motivation for subsequent courses in advanced algorithms and data structures, software design, formal methods, compilers, programming languages, and theory. The presentation is based on numerous examples and case studies appropriate to the level of programming expertise of the intended readership. The main topics covered are techniques for using programmer-friendly assertional notations to specify, develop, and verify small but non-trivial algorithms and data representations, and the use of state diagrams, grammars, and regular expressions to specify and develop recognizers for formal languages.

Learn how to program by diving into the R language, and then use your newfound skills to solve practical data science problems. With this book, you'll learn how to load data, assemble and disassemble data objects, navigate R's environment system, write your own functions, and use all of R's programming tools. RStudio Master Instructor Garrett Grolemund not only teaches you how to program, but also shows you how to get more from R than just visualizing and modeling data. You'll gain valuable programming skills and support your work as a data scientist at the same time. Work hands-on with three practical data analysis projects based on casino games Store, retrieve, and change data values in your computer's memory Write programs and simulations that outperform those written by typical R users Use R programming tools such as if else

statements, for loops, and S3 classes Learn how to write lightning-fast vectorized R code Take advantage of R's package system and debugging tools Practice and apply R programming concepts as you learn them Demonstrates how anyone in math, science, and engineering canmaster DFT calculations Density functional theory (DFT) is one of the most frequentlyused computational tools for studying and predicting the propertiesof isolated molecules, bulk solids, and material interfaces,including surfaces. Although the theoretical underpinnings of DFTare quite complicated, this book demonstrates that the basicconcepts underlying the calculations are simple enough to beunderstood by anyone with a background in chemistry, physics,engineering, or mathematics. The authors show how the widespreadavailability of powerful DFT codes makes it possible for studentsand researchers to apply this important computational technique toa broad range of fundamental and applied problems. Density Functional Theory: A Practical Introductionoffers a concise, easy-to-follow introduction to the key conceptsand practical applications of DFT, focusing on plane-wave DFT. Theauthors have many years of experience introducing DFT to studentsfrom a variety of backgrounds. The book therefore offers severalfeatures that have proven to be helpful in enabling students tomaster the subject, including: Problem sets in each chapter that give readers the opportunityto test their knowledge by performing their own calculations Worked examples that demonstrate how DFT calculations are usedto solve real-world problems Further readings listed in each chapter

enabling readers toinvestigate specific topics in greater depth This text is written at a level suitable for individuals from avariety of scientific, mathematical, and engineering backgrounds.No previous experience working with DFT calculations is needed.

Introduction to Research Methods: A Hands-On Approach makes learning research methods easy for students by giving them activities they can experience and do on their own. With clear, simple, and even humorous prose, this text offers students a straightforward introduction to an exciting new world of social science and behavioral research. Rather than making research seem intimidating, author Bora Pajo shows students how research can be an easy, ongoing conversation on topics that matter in their lives. Each chapter includes real research examples that illustrate specific topics that the chapter covers, guides that help students explore actual research challenges in more depth, and ethical considerations relating to specific chapter topics. 3 Reasons Why You'll Want to Read This Book 1. Conducting research can be fun when you see it in terms that relate to your everyday life. 2. Knowing how to do research will open many doors for you in your career. It will open your mind to new ideas on what you might pursue in the future (e.g., becoming an entrepreneur, opening your own nongovernmental organization, or running your own health clinic), and give you an extra analytic skill to brag about in your job interviews. 3. Understanding research will make you an educated consumer. You will be able to evaluate the information before you and determine what to accept and

what to reject. Truth be told, understanding research will save you money in the short and long term*. *From Chapter 1 of Introduction to Research Methods: A Hands-On Approach

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