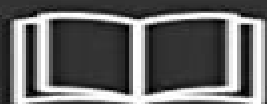


Cyrille Rossant

IPython Interactive Computing and Visualization Cookbook

Second Edition

Over 100 hands-on recipes to sharpen your skills in
high-performance numerical computing and data
science in the Jupyter Notebook



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Ipython Interactive Computing And Visualization Cookbook

Rossant Cyrille

Ivan Idris



IPython Interactive Computing And Visualization Cookbook Rossant Cyrille:

IPython Interactive Computing and Visualization Cookbook Cyrille Rossant, 2014-09-25 Intended to anyone interested in numerical computing and data science students researchers teachers engineers analysts hobbyists Basic knowledge of Python NumPy is recommended Some skills in mathematics will help you understand the theory behind the computational methods **Learning IPython for Interactive Computing and Data Visualization** Cyrille

Rossant, 2015-10-21 Get started with Python for data analysis and numerical computing in the Jupyter notebook About This Book Learn the basics of Python in the Jupyter Notebook Analyze and visualize data with pandas NumPy matplotlib and seaborn Perform highly efficient numerical computations with Numba Cython and ipyparallel Who This Book Is For This book targets students teachers researchers engineers analysts journalists hobbyists and all data enthusiasts who are interested in analyzing and visualizing real world datasets If you are new to programming and data analysis this book is exactly for you If you're already familiar with another language or analysis software you will also appreciate this introduction to the Python data analysis platform Finally there are more technical topics for advanced readers No prior experience is required this book contains everything you need to know What You Will Learn Install Anaconda and code in Python in the Jupyter Notebook Load and explore datasets interactively Perform complex data manipulations effectively with pandas Create engaging data visualizations with matplotlib and seaborn Simulate mathematical models with NumPy Visualize and process images interactively in the Jupyter Notebook with scikit image Accelerate your code with Numba Cython and IPython parallel Extend the Notebook interface with HTML JavaScript and D3 In Detail Python is a user friendly and powerful programming language IPython offers a convenient interface to the language and its analysis libraries while the Jupyter Notebook is a rich environment well adapted to data science and visualization Together these open source tools are widely used by beginners and experts around the world and in a huge variety of fields and endeavors This book is a beginner friendly guide to the Python data analysis platform After an introduction to the Python language IPython and the Jupyter Notebook you will learn how to analyze and visualize data on real world examples how to create graphical user interfaces for image processing in the Notebook and how to perform fast numerical computations for scientific simulations with NumPy Numba Cython and ipyparallel By the end of this book you will be able to perform in depth analyses of all sorts of data Style and approach This is a hands on beginner friendly guide to analyze and visualize data on real world examples with Python and the Jupyter Notebook [IPython Interactive Computing and Visualization Cookbook, Second Edition](#) Cyrille Rossant, 2018-01-31 Learn to use IPython and Jupyter Notebook for your data analysis and visualization work Key Features Leverage the Jupyter Notebook for interactive data science and visualization Become an expert in high performance computing and visualization for data analysis and scientific modeling A comprehensive coverage of scientific computing through many hands on example driven recipes with detailed step by step explanations Book Description Python is one of the leading open source platforms

for data science and numerical computing IPython and the associated Jupyter Notebook offer efficient interfaces to Python for data analysis and interactive visualization and they constitute an ideal gateway to the platform IPython Interactive Computing and Visualization Cookbook Second Edition contains many ready to use focused recipes for high performance scientific computing and data analysis from the latest IPython Jupyter features to the most advanced tricks to help you write better and faster code You will apply these state of the art methods to various real world examples illustrating topics in applied mathematics scientific modeling and machine learning The first part of the book covers programming techniques code quality and reproducibility code optimization high performance computing through just in time compilation parallel computing and graphics card programming The second part tackles data science statistics machine learning signal and image processing dynamical systems and pure and applied mathematics What you will learn Master all features of the Jupyter Notebook Code better write high quality readable and well tested programs profile and optimize your code and conduct reproducible interactive computing experiments Visualize data and create interactive plots in the Jupyter Notebook Write blazingly fast Python programs with NumPy ctypes Numba Cython OpenMP GPU programming CUDA parallel IPython Dask and more Analyze data with Bayesian or frequentist statistics Pandas PyMC and R and learn from actual data through machine learning scikit learn Gain valuable insights into signals images and sounds with SciPy scikit image and OpenCV Simulate deterministic and stochastic dynamical systems in Python Familiarize yourself with math in Python using SymPy and Sage algebra analysis logic graphs geometry and probability theory Who this book is for This book is intended for anyone interested in numerical computing and data science students researchers teachers engineers analysts and hobbyists A basic knowledge of Python NumPy is recommended Some skills in mathematics will help you understand the theory behind the computational methods

Mastering pandas for Finance Michael Heydt, 2015-05-25 If you are interested in quantitative finance financial modeling and trading or simply want to learn how Python and pandas can be applied to finance then this book is ideal for you Some knowledge of Python and pandas is assumed Interest in financial concepts is helpful but no prior knowledge is expected

[Python Data Science Handbook](#) Jake VanderPlas, 2022-12-06 Python is a first class tool for many researchers primarily because of its libraries for storing manipulating and gaining insight from data Several resources exist for individual pieces of this data science stack but only with the new edition of Python Data Science Handbook do you get them all IPython NumPy pandas Matplotlib scikit learn and other related tools Working scientists and data crunchers familiar with reading and writing Python code will find the second edition of this comprehensive desk reference ideal for tackling day to day issues manipulating transforming and cleaning data visualizing different types of data and using data to build statistical or machine learning models Quite simply this is the must have reference for scientific computing in Python With this handbook you ll learn how IPython and Jupyter provide computational environments for scientists using Python NumPy includes the ndarray for efficient storage and manipulation of dense data arrays Pandas contains the DataFrame for efficient

storage and manipulation of labeled columnar data Matplotlib includes capabilities for a flexible range of data visualizations Scikit learn helps you build efficient and clean Python implementations of the most important and established machine learning algorithms

Natural Language Processing with TensorFlow Thushan Ganegedara,2018-05-31 Write modern natural language processing applications using deep learning algorithms and TensorFlow Key Features Focuses on more efficient natural language processing using TensorFlow Covers NLP as a field in its own right to improve understanding for choosing TensorFlow tools and other deep learning approaches Provides choices for how to process and evaluate large unstructured text datasets Learn to apply the TensorFlow toolbox to specific tasks in the most interesting field in artificial intelligence Book Description Natural language processing NLP supplies the majority of data available to deep learning applications while TensorFlow is the most important deep learning framework currently available Natural Language Processing with TensorFlow brings TensorFlow and NLP together to give you invaluable tools to work with the immense volume of unstructured data in today s data streams and apply these tools to specific NLP tasks Thushan Ganegedara starts by giving you a grounding in NLP and TensorFlow basics You ll then learn how to use Word2vec including advanced extensions to create word embeddings that turn sequences of words into vectors accessible to deep learning algorithms Chapters on classical deep learning algorithms like convolutional neural networks CNN and recurrent neural networks RNN demonstrate important NLP tasks as sentence classification and language generation You will learn how to apply high performance RNN models like long short term memory LSTM cells to NLP tasks You will also explore neural machine translation and implement a neural machine translator After reading this book you will gain an understanding of NLP and you ll have the skills to apply TensorFlow in deep learning NLP applications and how to perform specific NLP tasks What you will learn Core concepts of NLP and various approaches to natural language processing How to solve NLP tasks by applying TensorFlow functions to create neural networks Strategies to process large amounts of data into word representations that can be used by deep learning applications Techniques for performing sentence classification and language generation using CNNs and RNNs About employing state of the art advanced RNNs like long short term memory to solve complex text generation tasks How to write automatic translation programs and implement an actual neural machine translator from scratch The trends and innovations that are paving the future in NLP Who this book is for This book is for Python developers with a strong interest in deep learning who want to learn how to leverage TensorFlow to simplify NLP tasks Fundamental Python skills are assumed as well as some knowledge of machine learning and undergraduate level calculus and linear algebra No previous natural language processing experience required although some background in NLP or computational linguistics will be helpful

Regression Analysis with Python Luca Massaron,Alberto Boschetti,2016-02-29 Learn the art of regression analysis with Python About This Book Become competent at implementing regression analysis in Python Solve some of the complex data science problems related to predicting outcomes Get to grips with various types of regression for

effective data analysis Who This Book Is For The book targets Python developers with a basic understanding of data science statistics and math who want to learn how to do regression analysis on a dataset It is beneficial if you have some knowledge of statistics and data science What You Will Learn Format a dataset for regression and evaluate its performance Apply multiple linear regression to real world problems Learn to classify training points Create an observation matrix using different techniques of data analysis and cleaning Apply several techniques to decrease and eventually fix any overfitting problem Learn to scale linear models to a big dataset and deal with incremental data In Detail Regression is the process of learning relationships between inputs and continuous outputs from example data which enables predictions for novel inputs There are many kinds of regression algorithms and the aim of this book is to explain which is the right one to use for each set of problems and how to prepare real world data for it With this book you will learn to define a simple regression problem and evaluate its performance The book will help you understand how to properly parse a dataset clean it and create an output matrix optimally built for regression You will begin with a simple regression algorithm to solve some data science problems and then progress to more complex algorithms The book will enable you to use regression models to predict outcomes and take critical business decisions Through the book you will gain knowledge to use Python for building fast better linear models and to apply the results in Python or in any computer language you prefer Style and approach This is a practical tutorial based book You will be given an example problem and then supplied with the relevant code and how to walk through it The details are provided in a step by step manner followed by a thorough explanation of the math underlying the solution This approach will help you leverage your own data using the same techniques

Python: Real World Machine Learning
Prateek Joshi, John Hearty, Bastiaan Sjardin, Luca Massaron, Alberto Boschetti, 2016-11-14 Learn to solve challenging data science problems by building powerful machine learning models using Python About This Book Understand which algorithms to use in a given context with the help of this exciting recipe based guide This practical tutorial tackles real world computing problems through a rigorous and effective approach Build state of the art models and develop personalized recommendations to perform machine learning at scale Who This Book Is For This Learning Path is for Python programmers who are looking to use machine learning algorithms to create real world applications It is ideal for Python professionals who want to work with large and complex datasets and Python developers and analysts or data scientists who are looking to add to their existing skills by accessing some of the most powerful recent trends in data science Experience with Python Jupyter Notebooks and command line execution together with a good level of mathematical knowledge to understand the concepts is expected Machine learning basic knowledge is also expected What You Will Learn Use predictive modeling and apply it to real world problems Understand how to perform market segmentation using unsupervised learning Apply your new found skills to solve real problems through clearly explained code for every technique and test Compete with top data scientists by gaining a practical and theoretical understanding of cutting edge deep learning algorithms Increase predictive accuracy with deep

learning and scalable data handling techniques Work with modern state of the art large scale machine learning techniques Learn to use Python code to implement a range of machine learning algorithms and techniques In Detail Machine learning is increasingly spreading in the modern data driven world It is used extensively across many fields such as search engines robotics self driving cars and more Machine learning is transforming the way we understand and interact with the world around us In the first module Python Machine Learning Cookbook you will learn how to perform various machine learning tasks using a wide variety of machine learning algorithms to solve real world problems and use Python to implement these algorithms The second module Advanced Machine Learning with Python is designed to take you on a guided tour of the most relevant and powerful machine learning techniques and you ll acquire a broad set of powerful skills in the area of feature selection and feature engineering The third module in this learning path Large Scale Machine Learning with Python dives into scalable machine learning and the three forms of scalability It covers the most effective machine learning techniques on a map reduce framework in Hadoop and Spark in Python This Learning Path will teach you Python machine learning for the real world The machine learning techniques covered in this Learning Path are at the forefront of commercial practice This Learning Path combines some of the best that Packt has to offer in one complete curated package It includes content from the following Packt products Python Machine Learning Cookbook by Prateek Joshi Advanced Machine Learning with Python by John Hearty Large Scale Machine Learning with Python by Bastiaan Sjardin Alberto Boschetti Luca Massaron Style and approach This course is a smooth learning path that will teach you how to get started with Python machine learning for the real world and develop solutions to real world problems Through this comprehensive course you ll learn to create the most effective machine learning techniques from scratch and more

Python Data Science Essentials Alberto Boschetti, Luca Massaron, 2018-09-28 Gain useful insights from your data using popular data science tools Key FeaturesA one stop guide to Python libraries such as pandas and NumPyComprehensive coverage of data science operations such as data cleaning and data manipulationChoose scalable learning algorithms for your data science tasksBook Description Fully expanded and upgraded the latest edition of Python Data Science Essentials will help you succeed in data science operations using the most common Python libraries This book offers up to date insight into the core of Python including the latest versions of the Jupyter Notebook NumPy pandas and scikit learn The book covers detailed examples and large hybrid datasets to help you grasp essential statistical techniques for data collection data munging and analysis visualization and reporting activities You will also gain an understanding of advanced data science topics such as machine learning algorithms distributed computing tuning predictive models and natural language processing Furthermore You ll also be introduced to deep learning and gradient boosting solutions such as XGBoost LightGBM and CatBoost By the end of the book you will have gained a complete overview of the principal machine learning algorithms graph analysis techniques and all the visualization and deployment instruments that make it easier to present your results to an audience of both data science experts and business users What

you will learn
Set up your data science toolbox on Windows Mac and Linux
Use the core machine learning methods offered by the scikit learn library
Manipulate fix and explore data to solve data science problems
Learn advanced explorative and manipulative techniques to solve data operations
Optimize your machine learning models for optimized performance
Explore and cluster graphs taking advantage of interconnections and links in your data
Who this book is for
If you re a data science entrant data analyst or data engineer this book will help you get ready to tackle real world data science problems without wasting any time
Basic knowledge of probability statistics and Python coding experience will assist you in understanding the concepts covered in this book

Large Scale Machine Learning with Python Bastiaan Sjardin, Luca Massaron, Alberto Boschetti, 2016-08-03
Learn to build powerful machine learning models quickly and deploy large scale predictive applications
About This Book
Design engineer and deploy scalable machine learning solutions with the power of Python
Take command of Hadoop and Spark with Python for effective machine learning on a map reduce framework
Build state of the art models and develop personalized recommendations to perform machine learning at scale
Who This Book Is For
This book is for anyone who intends to work with large and complex data sets
Familiarity with basic Python and machine learning concepts is recommended
Working knowledge in statistics and computational mathematics would also be helpful
What You Will Learn
Apply the most scalable machine learning algorithms
Work with modern state of the art large scale machine learning techniques
Increase predictive accuracy with deep learning and scalable data handling techniques
Improve your work by combining the MapReduce framework with Spark
Build powerful ensembles at scale
Use data streams to train linear and non linear predictive models from extremely large datasets using a single machine
In Detail
Large Python machine learning projects involve new problems associated with specialized machine learning architectures and designs that many data scientists have yet to tackle
But finding algorithms and designing and building platforms that deal with large sets of data is a growing need
Data scientists have to manage and maintain increasingly complex data projects and with the rise of big data comes an increasing demand for computational and algorithmic efficiency
Large Scale Machine Learning with Python uncovers a new wave of machine learning algorithms that meet scalability demands together with a high predictive accuracy
Dive into scalable machine learning and the three forms of scalability
Speed up algorithms that can be used on a desktop computer with tips on parallelization and memory allocation
Get to grips with new algorithms that are specifically designed for large projects and can handle bigger files and learn about machine learning in big data environments
We will also cover the most effective machine learning techniques on a map reduce framework in Hadoop and Spark in Python
Style and Approach
This efficient and practical title is stuffed full of the techniques tips and tools you need to ensure your large scale Python machine learning runs swiftly and seamlessly
Large scale machine learning tackles a different issue to what is currently on the market
Those working with Hadoop clusters and in data intensive environments can now learn effective ways of building powerful machine learning models from prototype to production
This book is written in a style that

programmers from other languages R Julia Java Matlab can follow **Brazilian Derivatives and Securities** Marcos C. S. Carreira, Richard J. Brostowicz Jr., 2016-07-11 The Brazilian financial markets operate in a very different way to G7 markets Key differences include onshore and offshore markets exponential rates business days day counts and price formation from the futures markets instead of the cash markets This book provides a quantitative applied guide to the offshore and onshore Brazilian markets with a focus on the financial instruments unique to the region It offers a comprehensive introduction to the key financial archaeology in the Brazil context exploring interest rates FX and inflation and key differences from G7 market finance It explores the core industry investment banking business in detail from FX to interest rates and cash and inflation Finally it introduces the region s unique financial instruments as well as their pricing and risk management needs Covering both introductory and complex topics this book provides existing practitioners in Brazil as well as those interested in becoming involved in these markets everything they need to understand the market dynamics risks pricing and calibration of curves for all products currently available **Play Among Books** Miro Roman, Alice _ch3n81, 2021-12-06 How does coding change the way we think about architecture This question opens up an important research perspective In this book Miro Roman and his AI Alice_ch3n81 develop a playful scenario in which they propose coding as the new literacy of information They convey knowledge in the form of a project model that links the fields of architecture and information through two interwoven narrative strands in an infinite flow of real books Focusing on the intersection of information technology and architectural formulation the authors create an evolving intellectual reflection on digital architecture and computer science

Python Data Visualization Cookbook Igor Milovanovic, Dimitry Foures, Giuseppe Vettigli, 2015-11-30 Over 70 recipes to get you started with popular Python libraries based on the principal concepts of data visualization About This Book Learn how to set up an optimal Python environment for data visualization Understand how to import clean and organize your data Determine different approaches to data visualization and how to choose the most appropriate for your needs Who This Book Is For If you already know about Python programming and want to understand data data formats data visualization and how to use Python to visualize data then this book is for you What You Will Learn Introduce yourself to the essential tooling to set up your working environment Explore your data using the capabilities of standard Python Data Library and Panda Library Draw your first chart and customize it Use the most popular data visualization Python libraries Make 3D visualizations mainly using mplot3d Create charts with images and maps Understand the most appropriate charts to describe your data Know the matplotlib hidden gems Use plot ly to share your visualization online In Detail Python Data Visualization Cookbook will progress the reader from the point of installing and setting up a Python environment for data manipulation and visualization all the way to 3D animations using Python libraries Readers will benefit from over 60 precise and reproducible recipes that will guide the reader towards a better understanding of data concepts and the building blocks for subsequent and sometimes more advanced concepts Python Data Visualization Cookbook starts by showing how to set up matplotlib and the related

libraries that are required for most parts of the book before moving on to discuss some of the lesser used diagrams and charts such as Gantt Charts or Sankey diagrams Initially it uses simple plots and charts to more advanced ones to make it easy to understand for readers As the readers will go through the book they will get to know about the 3D diagrams and animations Maps are irreplaceable for displaying geo spatial data so this book will also show how to build them In the last chapter it includes explanation on how to incorporate matplotlib into different environments such as a writing system LaTeX or how to create Gantt charts using Python Style and approach A step by step recipe based approach to data visualization The topics are explained sequentially as cookbook recipes consisting of a code snippet and the resulting visualization

Numerical Python Robert Johansson,2024-09-27 Learn how to leverage the scientific computing and data analysis capabilities of Python its standard library and popular open source numerical Python packages like NumPy SymPy SciPy matplotlib and more This book demonstrates how to work with mathematical modeling and solve problems with numerical symbolic and visualization techniques It explores applications in science engineering data analytics and more Numerical Python Third Edition presents many case study examples of applications in fundamental scientific computing disciplines as well as in data science and statistics This fully revised edition updated for each library s latest version demonstrates Python s power for rapid development and exploratory computing due to its simple and high level syntax and many powerful libraries and tools for computation and data analysis After reading this book readers will be familiar with many computing techniques including array based and symbolic computing visualization and numerical file I O equation solving optimization interpolation and integration and domain specific computational problems such as differential equation solving data analysis statistical modeling and machine learning What You ll Learn Work with vectors and matrices using NumPy Review Symbolic computing with SymPy Plot and visualize data with Matplotlib Perform data analysis tasks with Pandas and SciPy Understand statistical modeling and machine learning with statsmodels and scikit learn Optimize Python code using Numba and Cython Who This Book Is For Developers who want to understand how to use Python and its ecosystem of libraries for scientific computing and data analysis

Machine Learning and Security Clarence Chio,David Freeman,2018-01-26 Can machine learning techniques solve our computer security problems and finally put an end to the cat and mouse game between attackers and defenders Or is this hope merely hype Now you can dive into the science and answer this question for yourself With this practical guide you ll explore ways to apply machine learning to security issues such as intrusion detection malware classification and network analysis Machine learning and security specialists Clarence Chio and David Freeman provide a framework for discussing the marriage of these two fields as well as a toolkit of machine learning algorithms that you can apply to an array of security problems This book is ideal for security engineers and data scientists alike Learn how machine learning has contributed to the success of modern spam filters Quickly detect anomalies including breaches fraud and impending system failure Conduct malware analysis by extracting useful information from computer binaries Uncover attackers within the

network by finding patterns inside datasets Examine how attackers exploit consumer facing websites and app functionality Translate your machine learning algorithms from the lab to production Understand the threat attackers pose to machine learning solutions

Mastering Python Scientific Computing Hemant Kumar Mehta, 2015-09-23 A complete guide for Python programmers to master scientific computing using Python APIs and tools About This Book The basics of scientific computing to advanced concepts involving parallel and large scale computation are all covered Most of the Python APIs and tools used in scientific computing are discussed in detail The concepts are discussed with suitable example programs Who This Book Is For If you are a Python programmer and want to get your hands on scientific computing this book is for you The book expects you to have had exposure to various concepts of Python programming What You Will Learn Fundamentals and components of scientific computing Scientific computing data management Performing numerical computing using NumPy and SciPy Concepts and programming for symbolic computing using SymPy Using the plotting library matplotlib for data visualization Data analysis and visualization using Pandas matplotlib and IPython Performing parallel and high performance computing Real life case studies and best practices of scientific computing In Detail In today's world along with theoretical and experimental work scientific computing has become an important part of scientific disciplines Numerical calculations simulations and computer modeling in this day and age form the vast majority of both experimental and theoretical papers In the scientific method replication and reproducibility are two important contributing factors A complete and concrete scientific result should be reproducible and replicable Python is suitable for scientific computing A large community of users plenty of help and documentation a large collection of scientific libraries and environments great performance and good support makes Python a great choice for scientific computing At present Python is among the top choices for developing scientific workflow and the book targets existing Python developers to master this domain using Python The main things to learn in the book are the concept of scientific workflow managing scientific workflow data and performing computation on this data using Python The book discusses NumPy SciPy SymPy matplotlib Pandas and IPython with several example programs Style and approach This book follows a hands on approach to explain the complex concepts related to scientific computing It details various APIs using appropriate examples

NumPy: Beginner's Guide Ivan Idris, 2015-06-24 In today's world of science and technology it's all about speed and flexibility When it comes to scientific computing NumPy tops the list NumPy will give you both speed and high productivity This book will walk you through NumPy with clear step by step examples and just the right amount of theory The book focuses on the fundamentals of NumPy including array objects functions and matrices each of them explained with practical examples You will then learn about different NumPy modules while performing mathematical operations such as calculating the Fourier transform finding the inverse of a matrix and determining eigenvalues among many others This book is a one stop solution to knowing the ins and outs of the vast NumPy library empowering you to use its wide range of mathematical features to build efficient high speed programs

Practical

Data Science Cookbook Prabhanjan Tattar, Tony Ojeda, Sean Patrick Murphy, Benjamin Bengfort, Abhijit Dasgupta, 2017-06-29
Over 85 recipes to help you complete real world data science projects in R and Python About This Book Tackle every step in the data science pipeline and use it to acquire clean analyze and visualize your data Get beyond the theory and implement real world projects in data science using R and Python Easy to follow recipes will help you understand and implement the numerical computing concepts Who This Book Is For If you are an aspiring data scientist who wants to learn data science and numerical programming concepts through hands on real world project examples this is the book for you Whether you are brand new to data science or you are a seasoned expert you will benefit from learning about the structure of real world data science projects and the programming examples in R and Python What You Will Learn Learn and understand the installation procedure and environment required for R and Python on various platforms Prepare data for analysis by implement various data science concepts such as acquisition cleaning and munging through R and Python Build a predictive model and an exploratory model Analyze the results of your model and create reports on the acquired data Build various tree based methods and Build random forest In Detail As increasing amounts of data are generated each year the need to analyze and create value out of it is more important than ever Companies that know what to do with their data and how to do it well will have a competitive advantage over companies that don't Because of this there will be an increasing demand for people that possess both the analytical and technical abilities to extract valuable insights from data and create valuable solutions that put those insights to use Starting with the basics this book covers how to set up your numerical programming environment introduces you to the data science pipeline and guides you through several data projects in a step by step format By sequentially working through the steps in each chapter you will quickly familiarize yourself with the process and learn how to apply it to a variety of situations with examples using the two most popular programming languages for data analysis R and Python Style and approach This step by step guide to data science is full of hands on examples of real world data science tasks Each recipe focuses on a particular task involved in the data science pipeline ranging from readying the dataset to analytics and visualization

WebGL Insights Patrick Cozzi, 2015-08-06 Given its ubiquity plugin free deployment and ease of development the adoption of WebGL is on the rise Skilled WebGL developers provide organizations with the ability to develop and implement efficient and robust solutions creating a growing demand for skilled WebGL developers WebGL Insights shares experience backed lessons learned by the WebGL

Mastering IPython 4.0 Thomas Bitterman, 2016-05-30
Get to grips with the advanced concepts of interactive computing to make the most out of IPython About This Book Most updated book on Interactive computing with IPython 4.0 Detailed example rich guide that lets you use the most advanced level interactive programming with IPython Get flexible interactive programming with IPython using this comprehensive guide Who This Book Is For This book is for IPython developers who want to make the most of IPython and perform advanced scientific computing with IPython utilizing the ease of interactive computing It is ideal for users who wish to learn about the

interactive and parallel computing properties of IPython 4.0 along with its integration with third party tools and concepts such as testing and documenting results

What You Will Learn

- Develop skills to use IPython for high performance computing HPC
- Understand the IPython interactive shell
- Use XeroMQ and MPI to pass messages
- Integrate third party tools like R, Julia and JavaScript with IPython
- Visualize the data
- Acquire knowledge to test and document the data
- Get to grips with the recent developments in the Jupyter notebook system

In Detail

IPython is an interactive computational environment in which you can combine code execution, rich text, mathematics, plots and rich media. This book will get IPython developers up to date with the latest advancements in IPython and dive deep into interactive computing with IPython. This is an advanced guide on interactive and parallel computing with IPython. It will explore advanced visualizations and high performance computing with IPython in detail. You will quickly brush up your knowledge of IPython kernels and wrapper kernels, then we'll move to advanced concepts such as testing, Sphinx, JS events, interactive work and the ZMQ cluster. The book will cover topics such as IPython Console, Lexer, advanced configuration and third party tools. By the end of this book you will be able to use IPython for interactive and parallel computing in a high performance computing environment.

Style and approach

This is a comprehensive guide to IPython for interactive, exploratory and parallel computing. It will let the IPython developer get up to date with the latest advancements in IPython and dive deeper into interactive computing with IPython.

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this film recreates from ms junge s recollections the final 2 weeks of the thousand year third reich beginning 20 april 1945
the day of hitler s 56th birthday spent primarily in the führer bunker she and many of

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