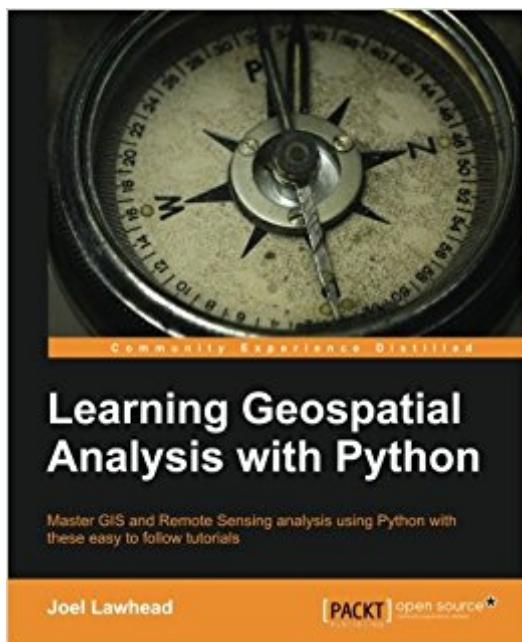The book was found

Learning Geospatial Analysis With Python

Synopsis

If you know Python and would like to use it for Geospatial Analysis this book is exactly what you've been looking for. With an organized, user-friendly approach it covers all the bases to give you the necessary skills and know-how. Overview Construct applications for GIS development by exploiting Python Focuses on built-in Python modules and libraries compatible with the Python Packaging Index distribution system- no compiling of C libraries necessary This is a practical, hands-on tutorial that teaches you all about Geospatial analysis in Python In Detail Geospatial analysis is used in almost every field you can think of from medicine, to defense, to farming. It is an approach to use statistical analysis and other informational engineering to data which has a geographical or geospatial aspect. And this typically involves applications capable of geospatial display and processing to get a compiled and useful data. "Learning Geospatial Analysis with Python" uses the expressive and powerful Python programming language to guide you through geographic information systems, remote sensing, topography, and more. It explains how to use a framework in order to approach Geospatial analysis effectively, but on your own terms. "Learning Geospatial Analysis with Python" starts with a background of the field, a survey of the techniques and technology used, and then splits the field into its component speciality areas: GIS, remote sensing, elevation data, advanced modelling, and real-time data. This book will teach you everything there is to know, from using a particular software package or API to using generic algorithms that can be applied to Geospatial analysis. This book focuses on pure Python whenever possible to minimize compiling platform-dependent binaries, so that you don't become bogged down in just getting ready to do analysis. "Learning Geospatial Analysis with Python" will round out your technical library with handy recipes and a good understanding of a field that supplements many a modern day human endeavors. What you will learn from this book Automate Geospatial analysis workflows using Python Code the simplest possible GIS in 60 lines of Python Mold thematic maps with Python tools Get a hold of the various forms the geospatial data comes in Produce elevation contours using Python tools Create flood inundation models Learn Real-Time Data tracking and apply it in storm chasing Approach This is a tutorial-style book that helps you to perform Geospatial and GIS analysis with Python and its tools/libraries. This book will first introduce various Python-related tools/packages in the initial chapters before moving towards practical usage, examples, and implementation in specialized kinds of Geospatial data analysis. Who this book is written for This book is for anyone who wants to understand digital mapping and analysis and who uses Python or another scripting language for automation or crunching data manually.This book primarily targets Python developers, researchers, and analysts who want to perform Geospatial,

modeling, and GIS analysis with Python.

Book Information

Paperback: 364 pages

Publisher: Packt Publishing (October 25, 2013)

Language: English

ISBN-10: 1783281138

ISBN-13: 978-1783281138

Product Dimensions: 7.5 x 0.8 x 9.2 inches

Shipping Weight: 1.7 pounds (View shipping rates and policies)

Average Customer Review: 4.6 out of 5 stars   6 customer reviews

Best Sellers Rank: #283,442 in Books (See Top 100 in Books)   #79 inÂ Books > Computers & Technology > Graphics & Design > Computer Modelling > Remote Sensing & GIS   #79 inÂ Books > Science & Math > Earth Sciences > Geography > Information Systems   #222 inÂ Books > Computers & Technology > Software > Mathematical & Statistical

Customer Reviews

Joel Lawhead Joel Lawhead is a PMI-certified Project Management Professional (PMP) and the Chief Information Officer (CIO) for NVisionSolutions.com, an award-winning firm specializing in geospatial technology integration and sensor engineering. He began using Python in 1997 and began combining it with geospatial software development in 2000. He has been published in two editions of the Python Cookbook by O'Reilly. He is also the developer of the widely used open source Python Shapefile Library (PyShp) and maintains the geospatial technical blog GeospatialPython.com and Twitter feed @SpatialPython discussing the use of the Python programming language within the geospatial industry. In 2011, he reverse engineered and published the undocumented shapefile spatial indexing format and assisted fellow geospatial Python developer, Marc Pfister, in reversing the algorithm used, allowing developers around the world to create better-integrated and more robust geospatial applications involving shapefiles. He has served as the lead architect, project manager, and co-developer for geospatial applications used by US government agencies including NASA, FEMA, NOAA, the US Navy, as well as many commercial and non-profit organizations. In 2002, he received the international "Esri Special Achievment in GIS" award for work on the Real-time Emergency Action Coordination Tool (REACT) for emergency management using geospatial analysis.

This book filled a lot of holes in my knowledge of geospatial analysis. The information was well presented and easy to understand. One irritation was that the text referred to the different colors in the pictures. There were NO colors in the pictures. The pictures were only gray scale.

great book for those who know GIS and are interested in Python

I'd like to start this review by addressing a few quick questions before I add my own thoughts.First, who would be interested in this book?Really, anyone who has ever had an interest in simply learning what Geospatial Analysis is will benefit from this book, the first chapters go through an excellent introduction into what the field of Geospatial Analysis even is and the topics that cover its range, such as Geographic Information Systems and Remote Sensing. That being said, once you get into the specific topics the focus really shifts to using Python to implement examples of these topics, and an individual who is completely unfamiliar with Python wouldn't benefit as much as someone who has a fairly good Python or programming background. Nevertheless eve if you never ran a single line of code, simply reading the book from front to back should give the reader a good foundation on what Geospatial Analysis is and how it is performed.Second, I'd like to discuss if the book covers what it says it does in its description:The description states it will offer a background in Geosptial Analysis, which it does a great job of in the beginning chapters. Before even jumping into the many Python modules you'll use, readers will gain an understanding of the topic they'll be learning.The second big statement is that the book will teach you how do use Python to implement Geospatial Analysis, and I was pleasantly surprised that the author really strives to keep everything running in pure Python modules whenever possible. The most you'll stray from running pure Python modules is in the use of some file viewers. Another great addition is that the author really pushes the use of open source libraries, throughout the book I never felt like I needed to purchase any of the more intense Geographic Information System software packages that are on the market. I really felt like all I needed was my Python interpreter and an internet connection.The next aspect that I found most enjoyable was that I simply liked reading the book. I initially sat down and just read the book from front to back, without following the code tutorials. I really enjoyed this approach because after I had read through, I simply went back and followed the tutorials that I found to be the most interesting to get a better understanding of how they were used. Another thing I highly enjoyed was seeing the use of some Python packages I have seen used in so many other scientific realms, most notably NumPy, as well as some modules that I'd never seen before, most of which are directly related to Geospatial Analysis.The thing I learned the most from reading this book is that Geospatial

Analysis is all about the data, and there is an extremely broad amount of data and data formats that can be used. A large portion of the text will cover what this data is, how it is used, and ways you can use Python to extract, alter, and use this data in creating some pretty cool Geospatial models. Even the very first map you draw depends on using this data. Thankfully you won't have to go searching for this, as the book provides plenty of data files for download.Overall I would highly recommend this book to anyone that has a love of Python and has a real interest in getting a starting background in understanding Geospatial Analysis. I would offer a slight recommendation for those users that are simply looking for a text book about Geospatial Analysis, as the real fun of the book comes from seeing the models and images being manipulated from the solid set of functions that the author gives you in Python. It is obvious that the author cares a great deal about the topic, and the enthusiasm is a definite benefit to the flow of the book. A fun, good read in my opinion as someone who initially knew very little about the topic.

I would recommend this book to all developers interested in Geospatial analysis using Python. It is interesting both for beginners and experienced Geospatial developers.The book starts with some interesting history and the underlying theory behind Geospatial systems. But you won't get bored, because right from the start (at the end of chapter 1) you learn how to implement a simple Geospatial system in Python.It then continues with a description of all the tools involved with doing Geospatial analysis, showing important concepts such as how to: read erroneous XML-based Geospatial data, measure distances, create histograms, etc.A minus is the image quality. If you read on a Kindle that doesn't support image colors it's impossible to understand the author's descriptions.

This book is sooooo useful for anybody who works with GIS! I used ideas from this book and was able to do projects with PURE Python, and not a single line of ArcPy !!!!

The author draws from his experience in the geospatial industry to apply practical solutions using the Python programming language, A great resource for applying Python to perform GIS/Remote Sensing analysis.

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