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Autore	Girolami-Boulinier, Andrée
Titolo	Prevenzione della dislessia e della disortografia : il bambino, l'adolescente / Andrée Girolami-Boulnier ; presentazione di Suzanne Borel-Maisonny ; traduzione: Luciana Gonrad
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Altri autori (Persone)	Borel-Maisonny, Suzanne Gonrad, Luciana
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Autore	Korstanje Joos
Titolo	Machine learning on geographical data using Python : introduction into geodata with applications and use cases / / Joos Korstanje
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ISBN	1-4842-8287-6
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Soggetti	Machine learning Python (Computer program language) Geodatabases
Lingua di pubblicazione	Inglese
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Note generali	Includes index.
Nota di contenuto	Intro -- Table of Contents -- About the Author -- About the Technical Reviewer -- Introduction -- Part I: General Introduction -- Chapter 1: Introduction to Geodata -- Reading Guide for This Book -- Geodata Definitions -- Cartesian Coordinates -- Polar Coordinates and Degrees -- The Difference with Reality -- Geographic Information Systems and Common Tools -- What Are Geographic Information Systems -- ArcGIS -- QGIS and Other Open Source ArcGIS Alternatives -- Python/R Programming -- Standard Formats of Geodata -- Shapefile -- Google KML File -- GeoJSON -- TIFF/JPEG/PNG -- CSV/TXT/Excel -- Overview of Python Tools for Geodata -- Key Takeaways -- Chapter 2: Coordinate Systems and Projections -- Coordinate Systems -- Geographic Coordinate Systems -- Latitude and Longitude -- WGS 1984 Geographic Coordinate System -- Other Geographic Coordinate Systems -- Projected Coordinate Systems -- X and Y Coordinates -- Four Types of Projected Coordinate Systems -- Equal Area Projections -- Example 1: Mollweide Projection -- Example 2: Albers Equal Area Conic -- Conformal Projections -- Mercator -- Lambert Conformal Conic -- Equidistant Projections -- Azimuthal Equidistant Projection -- Equidistant Conic Projection -- True Direction or Azimuthal Projections -- Lambert Equal Area Azimuthal -- Two-Point Equidistant Projection -- Local Coordinate Systems -- Which Coordinate System to Choose --

Playing Around with Some Maps -- Example: Working with Own Data -- Step 1: Make Your Own Dataset on Google My Maps -- Step 2: Add Some Features on Your Map -- Step 3: Export Your Map As a .KML -- Step 4: Import the .KML in Python -- Step 5: Plot the Map -- Step 6: Change the Coordinate System -- Step 7: Plot the Map Again -- Key Takeaways -- Chapter 3: Geodata Data Types -- Vector vs. Raster Data -- Dealing with Attributes in Vector and Raster -- Points.
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-- Spatial Operations for Feature Engineering -- Reorganizing and Standardizing the Data -- Modeling -- Model Benchmarking -- Key Takeaways -- Chapter 11: Regression -- Introduction to Regression -- Spatial Regression Use Case -- Importing and Preparing Data -- Iteration 1 of Data Exploration -- Iteration 1 of the Model -- Interpretation of Iteration 1 Model -- Iteration 2 of Data Exploration. Iteration 2 of the Model -- Iteration 3 of the Model -- Iteration 4 of the Model -- Interpretation of Iteration 4 Model -- Key Takeaways -- Chapter 12: Clustering -- Introduction to Unsupervised Modeling -- Introduction to Clustering -- Different Clustering Models -- Spatial Clustering Use Case -- Importing and Inspecting the Data -- Cluster Model for One Person -- Tuning the Clustering Model -- Applying the Model to All Data -- Key Takeaways -- Chapter 13: Conclusion -- What You Should Remember from This Book -- Recap of Chapter 1 - Introduction to Geodata -- Recap of Chapter 2 - Coordinate Systems and Projections -- Recap of Chapter 3 - Geodata Data Types -- Recap of Chapter 4 - Creating Maps -- Recap of Chapter 5 - Clipping and Intersecting -- Recap of Chapter 6 - Buffers -- Recap of Chapter 7 - Merge and Dissolve -- Recap of Chapter 8 - Erase -- Recap of Chapter 9 - Interpolation -- Recap of Chapter 10 - Classification -- Recap of Chapter 11 - Regression -- Recap of Chapter 12 - Clustering -- Further Learning Path -- Going into Specialized GIS -- Specializing in Machine Learning -- Remote Sensing and Image Treatment -- Other Specialties -- Key Takeaways -- Index.

Sommario/riassunto

Get up and running with the basics of geographic information systems (GIS), geospatial analysis, and machine learning on spatial data in Python. This book starts with an introduction to geodata and covers topics such as GIS and common tools, standard formats of geographical data, and an overview of Python tools for geodata. Specifics and difficulties one may encounter when using geographical data are discussed: from coordinate systems and map projections to different geodata formats and types such as points, lines, polygons, and rasters. Analytics operations typically applied to geodata are explained such as clipping, intersecting, buffering, merging, dissolving, and erasing, with implementations in Python. Use cases and examples are included. The book also focuses on applying more advanced machine learning approaches to geographical data and presents interpolation, classification, regression, and clustering via examples and use cases. This book is your go-to resource for machine learning on geodata. It presents the basics of working with spatial data and advanced applications. Examples are presented using code (accessible at github.com/Apress/machine-learning-geographic-data-python) and facilitate learning by application. What You Will Learn Understand the fundamental concepts of working with geodata Work with multiple geographical data types and file formats in Python Create maps in Python Apply machine learning on geographical data Who This Book Is For Readers with a basic understanding of machine learning who wish to extend their skill set to analysis of and machine learning on spatial data while remaining in a common data science Python environment.