

DATASCI 520: Main Textbooks

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Title	Python Data Science Handbook
Author	Jake VanderPlas
Publisher	O'Reilly Media, Inc.
ISBN	9781491912058
Abbreviation	PSDH

Title	Data Science from Scratch, 2nd Edition
Author	Joel Grus
Publisher	O'Reilly Media, Inc.
ISBN	9781492041139
Abbreviation	DSS

Lesson 1: Data Exploration I	PDSH Chapter 4 - Visualization with Matplotlib DSS Chapter 3 - Visualizing Data DSS Chapter 5 - Describing a Single Set of Data
Lesson 2: Data Exploration II	PDSH Chapter 4 - Visualization with Matplotlib DSS Chapter 10 - Cleaning and Munging
Milestone 1	PDSH Chapter 4 - Visualization with Matplotlib DSS Chapter 3 - Visualizing Data DSS Chapter 5 - Describing a Single Set of Data DSS Chapter 10 - Cleaning and Munging
Lesson 3: Combinatorics and Probability Distributions	PDSH Chapter 4 - Visualization with Matplotlib DSS Chapter 6 - Probability
Lesson 4: Sample and Hypothesis Testing	DSS Chapter 7 - Hypothesis and Inference
Lesson 5: Introduction to Bayes Theorem	DSS Chapter 6 - The Central Limit Theorem DSS Chapter 6 - Bayes's Theorem DSS Chapter 7 - Confidence Intervals DSS Chapter 15 - Digression: The Bootstrap
Milestone 2	DSS Chapter 3 - Visualizing Data DSS Chapter 6 - Distributions DSS Chapter 7 - Hypothesis and Inference
Lesson 6: Intro to Regression	PDSH Chapter 4 - Visualization with Matplotlib DSS Chapter 3 - Visualizing Data DSS Chapter 14 - Simple Linear Regression DSS Chapter 15 - Multiple Regression DSS Chapter 15 - Digression: The Bootstrap

Lesson 7: Regression and Regularization	PDSH Chapter 5 - In Depth: Principal Component Analysis DSS Chapter 15 - Regularization DSS Chapter 15 - Multiple Regression DSS Chapter 15 - Goodness of Fit DSS Chapter 16 - Logistic Regression
Lesson 8: Times Series Analysis	PDSH Chapter 3 - Working with Time Series
Milestone 3	PDSH Chapter 3 - Working with Time Series DSS Chapter 14 - Simple Linear Regression DSS Chapter 15 - Multiple Regression DSS Chapter 15 - Goodness of Fit DSS Chapter 15 - Regularization DSS Chapter 16 - Logistic Regression
Lesson 9: Naïve Bayes	PDSH Chapter 5 - In Depth: Naive Bayes Classification DSS Chapter 13 - Naive Bayes
Lesson 10: Basic Text Analytics	DSS Chapter 21 - Natural Language Processing
Milestone 4	PDSH Chapter 3 - Working with Time Series PDSH Chapter 5 - In Depth: Naive Bayes Classification DSS Chapter 14 - Simple Linear Regression DSS Chapter 15 - Multiple Regression DSS Chapter 15 - Goodness of Fit DSS Chapter 15 - Regularization DSS Chapter 16 - Logistic Regression DSS Chapter 3 - Working with Time Series DSS Chapter 13 - Naive Bayes

Additional Textbooks

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Title	Principles of Data Science - Second Edition
Author	Sunil Kakade, Sinan Ozdemir
Publisher	Packt Publishing
ISBN	9781789804546

Title	Python Data Science Essentials - Third Edition
Author	Luca Massaron, Alberto Boschetti
Publisher	Packt Publishing
ISBN	9781789537864

Title	Mastering pandas - Second Edition
Author	Ashish Kumar
Publisher	Packt Publishing
ISBN	9781789343236

Title	Pandas for Everyone: Python Data Analysis, First Edition
Author	Daniel Y. Chen
Publisher	Addison-Wesley Professional
ISBN	9780134547046

Title	Hands-On Unsupervised Learning Using Python
Author	Ankur A. Patel
Publisher	O'Reilly Media, Inc.
ISBN	9781492035640

Title	Matplotlib for Python Developers
Author	Allen Yu, Claire Chung, Aldrin Yim
Publisher	Packt Publishing
ISBN	9781788625173

Title	Python for Data Analysis, 2nd Edition
Author	Wes McKinney
Publisher	O'Reilly Media, Inc.
ISBN	9781491957660

Title	Practical Statistics for Data Scientists, 2nd Edition
Author	Peter Gedeck, Andrew Bruce, Peter Bruce
Publisher	O'Reilly Media, Inc.
ISBN	9781492072942

Title	Hands-On Data Science and Python Machine Learning
Author	Frank Kane
Publisher	Packt Publishing
ISBN	9781787280748

Title	Machine Learning Quick Reference
Author	Rahul Kumar
Publisher	Packt Publishing
ISBN	9781788830577

Title	Practical Time Series Analysis
Author	Dr. PKS Prakash, Dr. Avishek Pal
Publisher	Packt Publishing
ISBN	9781788290227

Title	Python Machine Learning - Third Edition
Author	Vahid Mirjalili, Sebastian Raschka
Publisher	Packt Publishing
ISBN	9781789955750